TITLE: 3B20D and 3B21D PDS Output Messages Manual Addendum

Enclosed is the "COMPLETE UPDATE" Addendum to the 3B20D and 3B21D Computers UNIX® Operating System, Output Messages Manual - PDS (254-303-111). This Addendum contains all new updated replacements to all the PDS Output Message Manual. Note that the ‘‘No. of Sheets’’ represents the physical number of sheets, not the number of pages for the given message.

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ALW DMQ	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
ALW EAIINT	1	UNIX RTR R21.3, R21.11, R21.15 and later	
ALW ERRCHK	1	UNIX RTR R1.5 only	
ALW ERRCHK	1	UNIX RTR R6.4 only	
ALW ERRCHK	1	UNIX RTR R21.3, R21.11, R21.15 and later	
ALW ERRINT	1	UNIX RTR R1.5 only	
ALW ERRINT	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
ALW ERRSRC	1	UNIX RTR R1.5 only	
ALW ERRSRC	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
ALW FILESYS ACCESS	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
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ALW FILESYS OWNER	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
ALW HDWCHK	1	UNIX RTR R1.5 only	
ALW HDWCHK	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
ALW REX	1	UNIX RTR R21.3, R21.11, R21.15 and later	
ALW SCSD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
ALW SFTCHK	1	UNIX RTR R1.5 only	
ALW SFTCHK	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
ALW UMEM	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
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AUD CUMEM	2	UNIX RTR R1.5 only	
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AUD CUSTAT	5	UNIX RTR R1.5 only	
AUD CUSTAT	6	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
AUD ECD	3	UNIX RTR R1.5 only	
AUD ECD	3	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
AUD ECDOWN	2	UNIX RTR R1.5 only	
AUD ECDOWN	2	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
AUD FMGR 1	2	UNIX RTR R1.5 only	
AUD FMGR 1	2	UNIX RTR R6.4, R21.3, R21.11, R21.15, and later	
AUD FMGR 2	2	UNIX RTR R1.5 only	
AUD FMGR 2	2	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
AUD FMGR 3	2	UNIX RTR R1.5 only	
AUD FMGR 3	2	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
AUD FMGR 4	2	UNIX RTR R1.5 only	
AUD FMGR 4	2	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
AUD FMGR 5	2	UNIX RTR R1.5 only	
AUD FMGR 5	2	UNIX RTR R6.4 only	
AUD FMGR 5	2	UNIX RTR R21.3, R21.11, R21.15 and later	
AUD FMGR 6	3	UNIX RTR R1.5 only	
AUD FMGR 6	3	UNIX RTR R6.4, R21.11, R21.15 thru R21.27	
AUD FMGR 6	3	UNIX RTR R21.3, R21.29 and later	
AUD FMGR 7	2	UNIX RTR R1.5 only	
AUD FMGR 7	2	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
AUD FMGR 8	2	UNIX RTR R1.5 only	
AUD FMGR 8	2	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
AUD FMGR 9	2	UNIX RTR R1.5 only	
AUD FMGR 9	2	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
AUD FSBLK	4	UNIX RTR R1.5 only	
AUD FSBLK	4	UNIX RTR R6.4 only	
AUD FSBLK	4	UNIX RTR R21.3 and R21.11	
AUD FSBLK	4	UNIX RTR R21.15 and later	
AUD FSCMPT	4	UNIX RTR R1.5 only	
AUD FSCMPT	4	UNIX RTR R6.4 only	
AUD FSCMPT	4	UNIX RTR R21.3 and R21.11	
AUD FSCMPT	4	UNIX RTR R21.15 and later	
AUD FSLINK	4	UNIX RTR R1.5 only	
AUD FSLINK	4	UNIX RTR R6.4 only	
AUD FSLINK	4	UNIX RTR R21.3 and R21.11	
AUD FSLINK	4	UNIX RTR R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
AUD MMGR	5	UNIX RTR R1.5 only	
AUD MMGR	5	UNIX RTR R6.4 only	
AUD MMGR	5	UNIX RTR R21.3, R21.11, R21.15 and later	
AUD MSGBUF	6	UNIX RTR R1.5 only	
AUD MSGBUF	5	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
AUD PMS	3	UNIX RTR R1.5 only	
AUD PMS	3	UNIX RTR R6.4, R21.11, 21.15 and R21.17	
AUD PMS	3	UNIX RTR R21.3, R21.19 and later	
AUD PROAD	2	UNIX RTR R1.5 only	
AUD PROAD	3	UNIX RTR R6.4 only	
AUD PROAD	3	UNIX RTR R21.3, R21.11, R21.15 and later	
CFR DUPLEXDISKS	1	UNIX RTR R21.27 and later	
CLR EMERDMP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
CLR FILESYS DIR	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
CLR FILESYS FILE	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
CLR FANALM	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
CLR IMCAT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
CLR IODRV	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
CLR IOMEM	1	UNIX RTR R21.27 and later	
CLR MHD MAEC	2	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
CLR PTN	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
CLR UMEM	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
CLR UTIL	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
CLR UTILFLAG	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
CMPR DISK CORE	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
CMPR MHD	2	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later	
CMPR MHD	2	UNIX RTR R21.11 and R21.15	
COPY ACTDISK	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
COPY ADDR	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
COPY BKDISK	3	UNIX RTR R1.5 and R6.4	
COPY BKDISK	3	UNIX RTR R21.3 and R21.11	
COPY BKDISK	4	UNIX RTR R21.15 and later	
COPY BKTAPE	1	UNIX RTR 21.15 and later	
COPY DIFF SRC	2	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later	
COPY DIFF SRC	2	UNIX RTR R21.11 and R21.15	
COPY FILESYS CFILE	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
COPY FILESYS FILE	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
COPY OOSDISK	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
COPY PTN ALL	2	UNIX RTR R1.5, R6.4, R21.3 and R21.11	
COPY PTN ALL	2	UNIX RTR R21.15 and later	
COPY PID	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
COPY REG	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
COPY SPDISK	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25	
COPY SPDISK	2	UNIX RTR R21.27 and later	
COPY TAPE EMERDMP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
COPY TAPE IN	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
COPY TAPE OUT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
COPY TAPE TEST	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
COPY TAPE TOP	1	UNIX RTR R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
COPY UID	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
COPY UVAR	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
CU RECOVERY UVAR	1	UNIX RTR R21.11, R21.15 and later	

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DGN CU	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DGN CU MASC	3	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DGN DCI	2	UNIX RTR R21.3, R21.11, R21.15 and later	
DGN DFC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25	
DGN DFC	2	UNIX RTR R21.27 and later	
DGN DUIC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DGN HSDC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DGN IOP	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DGN MHD	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DGN MT	2	UNIX RTR R21.3, R21.11, R21.15 and later	
DGN MTC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DGN MTTYC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25	
DGN MTTYC	2	UNIX RTR R21.27 and later	
DGN SCSDC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DGN SDLC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
DGN TTYC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DUMP ADDR	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DUMP BKTAPE	2	UNIX RTR 21.15 and later	
DUMP CACHE	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DUMP FILE ALL	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DUMP FILE FORMAT	1	UNIX RTR R1.5, R6.4, R21.3,R 21.11, R21.15 and later	
DUMP FILE PARTL	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DUMP KERN	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DUMP MHD BLOCK	1	UNIX RTR R1.5 only	
DUMP MHD BLOCK	1	UNIX RTR R6.4 only	
DUMP MHD BLOCK	2	UNIX RTR R21.3, R21.11, R21.15 and later	
DUMP MHD DEFECT	2	UNIX RTR R1.5 only	
DUMP MHD DEFECT	3	UNIX RTR R6.4 only	
DUMP MHD DEFECT	3	UNIX RTR R21.3, R21.11, R21.15 thru R21.21	
DUMP MHD DEFECT	3	UNIX RTR R21.23 and later	
DUMP MHD VTOC	1	UNIX RTR R1.5 only	
DUMP MHD VTOC	1	UNIX RTR R6.4 only	
DUMP MHD VTOC	2	UNIX RTR R21.3, R21.11, R21.15 and later	
DUMP PID	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DUMP PMEM	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DUMP REG	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DUMP UID	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DUMP UVAR	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
EX CU	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
EX DCI	2	UNIX RTR R21.3, R21.15 and later	
EX DFC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
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EX HSDC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
EX IOP	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later	
EX LDPARM	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
EX LOOP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
EX MHD	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
EX MT	2	UNIX RTR R21.3, R21.11, R21.15 and later	
EX MTC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
EX MTTYC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
EX PAUSE	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
EX SCSDC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
EX SDLC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
EX STEP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
EX STOP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
EX TTYC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
EXC ENVIR PROC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
EXC ENVIR UPROC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
EXC OFLBOOT	6	UNIX RTR R21.3 and R21.11	
EXC OFLBOOT	6	UNIX RTR R21.15 and later	
IN FILE APND	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
IN FILE DEL	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
IN FILE REPL	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
IN FILESYS DIR	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
IN REMOTE	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
IN REMOTE ERROR	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
IN REMOTE INITIALIZED	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
IN REMOTE STARTED	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
IN REMOTE STOPPED	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
IN XFER	1	UNIX RTR R21.11, R21.15 and later	
INH AUD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
INH CONFLOG	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
INH DMQ	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
INH EAIINT	1	UNIX RTR R21.3, R21.11, R21.15 and later	
INH ERRCHK	1	UNIX RTR R1.5 only	
INH ERRCHK	1	UNIX RTR R6.4 only	
INH ERRCHK	1	UNIX RTR R21.3, R21.11, R21.15 and later	
INH ERRINT	1	UNIX RTR R1.5 only	
INH ERRINT	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
INH ERRSRC	1	UNIX RTR R1.5 only	
INH ERRSRC	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
INH FILESYS UMOUNT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
INH HDWCHK	1	UNIX RTR R1.5 only	
INH HDWCHK	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
INH REX	1	UNIX RTR R21.3, R21.11, R21.15 and later	
INH SCSD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
INH SFTCHK	1	UNIX RTR R1.5 only	
INH SFTCHK	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
INH UMEM	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
INH UTIL	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
INH UTILFLAG	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
INIT MHD	2	UNIX RTR R1.5 only	
INIT MHD	2	UNIX RTR R6.4 only	
INIT MHD	3	UNIX RTR R21.3, R21.11, R21.15 and later	
INIT ULARP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
INIT UMEM	1	UNIX RTR R1.5 only	
INIT UMEM	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
LOAD ADDR	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
LOAD DFC PUMP	1	UNIX RTR R6.4 only	
LOAD DFC PUMP	1	UNIX RTR R21.3 and R21.11	
LOAD DFC PUMP	1	UNIX RTR R21.15 and later	
LOAD DFC RAM	1	UNIX RTR R6.4 only	
LOAD DFC RAM	1	UNIX RTR R21.3, R21.11, R21.15 and later	
LOAD MHD	1	UNIX RTR R1.5 and R6.4	
LOAD MHD	2	UNIX RTR R21.3 and R21.11	
LOAD MHD	2	UNIX RTR R21.15 and later	
LOAD MHD DEFECT	1	UNIX RTR R1.5 only	
LOAD MHD DEFECT	2	UNIX RTR R6.4 only	
LOAD MHD DEFECT	3	UNIX RTR R21.3, R21.11, R21.15 thru R21.21	
LOAD MHD DEFECT	3	UNIX RTR R21.23 only	
LOAD MHD DEFECT	3	UNIX RTR R21.25 and later	
LOAD MHD FIRMWARE	2	UNIX RTR R6.4 only	
LOAD MHD FIRMWARE	2	UNIX RTR R21.3, R21.11, R21.15 and later	
LOAD PMEM	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
LOAD REG	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
LOAD UVAR	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
VOLUME 3			
INDEX	18	UNIX RTR All Active Generics	
OP ABD	1	UNIX RTR R21.27 and later	
OP ACT	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP AUD	2	UNIX RTR R1.5 only	
OP AUD	2	UNIX RTR R6.4 only	
OP AUD	3	UNIX RTR R21.3, R21.11, R21.15 and later	
OP AUDERR	2	UNIX RTR R1.5 only	
OP AUDERR	2	UNIX RTR R6.4 only	
OP AUDERR	2	UNIX RTR R21.3, R21.11, R21.15 and later	
OP CFGSTAT	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP CLK	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP CONTROLLER INFO	2	UNIX RTR R21.37 and later	
OP DEVICE INFO	2	UNIX RTR R21.37 and later	
OP DFC INFO	2	UNIX RTR R1.5 only	
OP DFC INFO	4	UNIX RTR R6.4 only	
OP DFC INFO	4	UNIX RTR R21.3, R21.11, R21.15 thru R21.25	
OP DFC INFO	5	UNIX RTR R21.27 and later	
OP DFCELOG	2	UNIX RTR R1.5 only	
OP DFCELOG	2	UNIX RTR R6.4 only	
OP DFCELOG	2	UNIX RTR R21.3, R21.11, R21.15 and later	
OP DMQ	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP EMERSTAT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP ERRCHK	1	UNIX RTR R1.5 and R6.4	
OP ERRCHK	2	UNIX RTR R21.3, R21.11, R21.15 and later	
OP FNAME	1	UNIX RTR R1.5 and R6.4	
OP FNAME	2	UNIX RTR R21.3, R21.11, R21.15 and later	
OP GEN READLOG	3	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
OP GROW	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP INIT	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP IODRV	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP IOP INFO	2	UNIX RTR R21.27 and later	
OP LOG	1	UNIX RTR R1.5 and R6.4	
OP LOG	2	UNIX RTR R21.3, R21.11, R21.15 and later	
OP MEMERRS	2	UNIX RTR R1.5 only	
OP MEMERRS	2	UNIX RTR R6.4 only	
OP MEMERRS	2	UNIX RTR R21.3, R21.11, R21.15 and later	
OP MHD INFO	2	UNIX RTR R1.5 only	
OP MHD INFO	4	UNIX RTR R6.4 only	
OP MHD INFO	4	UNIX RTR R21.3, R21.11, R21.15 thru R21.25	
OP MHD INFO	4	UNIX RTR R21.27 and later	
OP MT INFO	2	UNIX RTR R21.3, R21.11, R21.15 and later	
OP OFL	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP OMDB	1	UNIX RTR R1.5, R6.4, and R21.3	
OP OMDB	1	UNIX RTR R21.11, R21.15 and later	
OP OOS	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP PMCR ERROR	3	UNIX RTR R1.5, R6.4 and R21.3	
OP PMCR ERROR	3	UNIX RTR R21.11, R21.15 and later	
OP REXINH	1	UNIX RTR R1.5 and R6.4	
OP REXINH	1	UNIX RTR R21.3, R21.11, R21.15 and later	
OP SCSD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP STATUS DISKUSE	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP STATUS FILESYS	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP STATUS FREEDISK	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP STATUS LISTDIR	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP STATUS PORTS	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
OP STATUS PROCESS	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP STATUS SUM	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP STBY	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP ULARP COMMAND	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP ULARP EXECSEQ	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP ULARP PROCESS	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP UMEM	1	UNIX RTR R1.5 only	
OP UMEM	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
OP UNAV	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP UNEQIP	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP UTIL	2	UNIX RTR R1.5 only	
OP UTIL	2	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
OP VERSION	1	UNIX RTR R21.11, R21.15 and later	
ORD SCSD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
PRM 0	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RCV DMTECD VFY	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RCV DMTSG VFY	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RCV MENU	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RCVRY ALARM	1	UNIX RTR R21.11, R21.15 and later	
RCVRY CU	1	UNIX RTR R1.5 only	
RCVRY DUI	1	UNIX RTR R1.5 only	
RCVRY DUIC	1	UNIX RTR R1.5 only	
RCVRY HSD	1	UNIX RTR R1.5 only	
RCVRY HSDC	1	UNIX RTR R1.5 only	
RCVRY IOP	1	UNIX RTR R1.5 only	
RCVRY MT	1	UNIX RTR R1.5 only	

Messages	No. of Sheets	Generic Range	Remarks
RCVRY MTC	1	UNIX RTR R1.5 only	
RCVRY MTTY	1	UNIX RTR R1.5 only	
RCVRY MTTYC	1	UNIX RTR R1.5 only	
RCVRY ROP	1	UNIX RTR R1.5 only	
RCVRY SCC	1	UNIX RTR R1.5 only	
RCVRY SCSDC	1	UNIX RTR R1.5 only	
RCVRY SDL	1	UNIX RTR R1.5 only	
RCVRY SDLC	1	UNIX RTR R1.5 only	
RCVRY TTY	1	UNIX RTR R1.5 only	
RCVRY TTYC	1	UNIX RTR R1.5 only	
REPT ADP	1	UNIX RTR R1.5 only	
REPT ADP	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT ADP AUTORST	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT ADP INHIBT ACT	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT ADP INTERFCE ERR	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT ADPAB	2	UNIX RTR R1.5 only	
REPT ADPAB	2	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT ANALY TLP	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT AUDSTAT	2	UNIX RTR R1.5 only	
REPT AUDSTAT	2	UNIX RTR R6.4 only	
REPT AUDSTAT	2	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT AUTORST FAILURE	2	UNIX RTR R1.5 only	
REPT AUTORST FAILURE	2	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT BAD ALIGN	1	UNIX RTR R1.5 only	
REPT BAD OST	1	UNIX RTR R1.5 only	
REPT BAD PRTY DIO	1	UNIX RTR R1.5 only	
REPT BAD PRTY DMA	1	UNIX RTR R1.5 only	
REPT BDG	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT BWMINT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT CCIO COMMAND	1	UNIX RTR R1.5 only	
REPT CCIO DATA PARITY	1	UNIX RTR R1.5 only	

Messages	No. of Sheets	Generic Range	Remarks
REPT CD CIA	1	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT C/D DLGGETTY	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT C/D ERROR	2	UNIX RTR R1.5 only	
REPT C/D ERROR	2	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT C/D GETTY	1	UNIX RTR R1.5 only	
REPT C/D GETTY	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT C/D POKER	2	UNIX RTR R1.5, R6.4, 21.3, R21.11, R21.15 and later	
REPT C/D STARTER	1	UNIX RTR R1.5 only	
REPT C/D STARTER	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT C/D STARTER	1	UNIX RTR R21.3 only	
REPT CFT LIB	2	UNIX RTR R1.5 and R6.4	
REPT CFT LIB	2	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT CFTSHL	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT CONFIG FAULT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT CONFIG RECONFIG	1	UNIX RTR R1.5, R6.4, 21.3, R21.11, R21.15 and later	
REPT CSOP	2	UNIX RTR R1.5 only	
REPT CSOP	3	UNIX RTR R6.4 only	
REPT CSOP	4	UNIX RTR R21.3 only	
REPT CSOP	4	UNIX RTR R21.11, R21.15 and later	
REPT CSOP FORMATTING	1	UNIX RTR R1.5 and R6.4	
REPT CSOP FORMATTING	1	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT CSOP IN	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT CSOP PRIM	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT CU	5	UNIX RTR R1.5, R6.4, R21.3, R21.11, and R21.15	
REPT CU	5	UNIX RTR R21.17 and later	
REPT CURSTRMV FAULT	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
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INDEX	18	UNIX RTR All Active Generics	
REPT DCI	2	UNIX RTR R21.3, R21.15 thru R21.30	
REPT DCI	3	UNIX RTR R21.31 and later	
REPT DCIDIP	1	UNIX RTR R21.17 and later	
REPT DEGROWTH	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT DFC	2	UNIX RTR R1.5 only	
REPT DFC	2	UNIX RTR R6.4 only.	
REPT DFC	2	UNIX RTR R21.3 only	
REPT DFC	2	UNIX RTR R21.11, R21.15 and later	
REPT DFC PUMP	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT DFCE	8	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT DFCI	3	UNIX RTR R1.5 only	
REPT DFCI	4	UNIX RTR R6.4 only	
REPT DFCI	4	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT DFRMVRST ERROR	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT DGN	6	UNIX RTR R1.5 and R6.4	
REPT DGN	6	UNIX RTR R21.3 only	
REPT DGN	6	UNIX RTR R21.11, R21.15 and later	
REPT DGN AUDIT	3	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT DIAMON	6	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT DIO ACK	1	UNIX RTR R1.5 only	
REPT DIO READY	1	UNIX RTR R1.5 only	
REPT DIOP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT DKDIP	1	UNIX RTR R1.5 only	
REPT DKDIP	1	UNIX RTR R6.4 only	
REPT DKDIP	1	UNIX RTR R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
REPT DKDRV	2	UNIX RTR R1.5 only	
REPT DKDRV	2	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT DLGGETTY	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT DLGSHL	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT DMA ADDR	1	UNIX RTR R1.5 only	
REPT DMA ASW	1	UNIX RTR R1.5 only	
REPT DMA CHNL	1	UNIX RTR R1.5 only	
REPT DMA RAM	1	UNIX RTR R1.5 only	
REPT DMA ROM	1	UNIX RTR R1.5 only	
REPT DMQ	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT DUI	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT DUIC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT EAI	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25	
REPT EAI	3	UNIX RTR R21.27 and later	
REPT ECDMAN	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT EMERGENCY DUMP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT ERRPORT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT ERSLOT	5	UNIX RTR R6.4 only	
REPT ERSLOT	9	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT FAN	1	UNIX RTR R1.5 and R6.4	
REPT FAN	2	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT FAN MULTI	1	UNIX RTR R1.5, R21.3, R21.11, R21.15 and later	
REPT FAN MULTI	1	UNIX RTR R6.4 only	
REPT FAN SINGLE	1	UNIX RTR R1.5, R21.3, R21.11, R21.15 and later	
REPT FAN SINGLE	1	UNIX RTR R6.4 only	
REPT FIELD MAINT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT FILESYS	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT FMGR	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
REPT FMGR DSW	1	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT FMGR ECD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT FMGR FILSYS	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT FMGR MOUNT	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT FMGR NONTASK FLT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT FMGR TBL OVERLD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT FMGR PROCESS	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT FMGR TASK STATUS	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT FMGR UMNTFLD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT FMGR UNMNT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT FMGR WNDW	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT FUSE ALARM	1	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT GRASP	2	UNIX RTR R1.5 only	
REPT GRASP	1	UNIX RTR R6.4 only	
REPT GRASP	2	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT GROWTH	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT HSD	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT HSDC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT ILL INSTRCT	1	UNIX RTR R1.5 only	
REPT ILL OPRND	1	UNIX RTR R1.5 only	
REPT ILL STACK	1	UNIX RTR R1.5 only	
REPT INHADM	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT INHIBIT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT INIT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
REPT INVLD ER INT	1	UNIX RTR R1.5 only	
REPT INVLD ER NUM	1	UNIX RTR R1.5 only	
REPT INVLD MNTC	1	UNIX RTR R1.5 only	
REPT IO CHNL ERR	1	UNIX RTR R1.5 only	
REPT IODRV ATTRIBUTE	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT IODRV ERR	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT IODRV ERROR	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT IODRV FAULT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT IOP	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT IORMVRST ERROR	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT KAUDPRC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT KLLA	2	UNIX RTR R1.5 only	
REPT LIBC ARGU	1	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT LIBC ER STRT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT LIBC EX	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT LIBC FAULT	1	UNIX RTR R1.5 and R6.4	
REPT LIBC FAULT	1	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT LIBC FORK	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT LIBC PROGRAM	1	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT LIBC SAVE	1	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT LIBC START	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT MAITNANCE REQSTS	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT MAPFILE	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT MAXINTVL	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
REPT MBD	1	UNIX RTR 6.4, 21.3, R21.11, R21.15 and later	
REPT MEMORY PRTY	1	UNIX RTR R1.5 only	
REPT MHD	2	UNIX RTR R1.5 only	
REPT MHD	2	UNIX RTR R6.4 only	
REPT MHD	3	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT MIRA	4	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT MKDSK	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT MMGR001	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT MMGR002	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT MMGR003	1	UNIX RTR R1.5 only	
REPT MMGR003	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT MMGR004	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT MMGR005	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT MOP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT MT	1	UNIX RTR R1.5 and R6.4	
REPT MT	3	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT MTC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT MTTY	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT MTTYC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT MY STORE A	1	UNIX RTR R1.5 only	
REPT MY STORE B	1	UNIX RTR R1.5 only	
REPT MY STORE C	1	UNIX RTR R1.5 and R6.4	
REPT NONCORR PRTY	1	UNIX RTR R1.5 only	
REPT OFFLINE	1	UNIX RTR R21.3, R21.11, R21.15 thru R21.33	
REPT OFFLINE	1	UNIX RTR R21.35 and later	
REPT OFLBOOT	19	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT OLBCONFIG FAULT	1	UNIX RTR 21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
REPT OUT OF RANGE MEM	1	UNIX RTR R1.5 only	
REPT OUT RNGE MEM OTR	2	UNIX RTR R1.5 only	
REPT OP PMCR	2	UNIX RTR R1.5 and R6.4	
REPT OP PMCR	2	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT OP PMCR ERROR	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT OTR STORE HDWARE	1	UNIX RTR R1.5 and R6.4	
REPT OTR STORE READ	1	UNIX RTR R1.5 and R6.4	
REPT OTR STORE REFRSH	1	UNIX RTR R1.5 and R6.4	
REPT OTR STORE TME OUT	1	UNIX RTR R1.5 only	
REPT OUTPUT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT PASSWORD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT PCPAUD	6	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25	
REPT PCPAUD	6	UNIX RTR R21.27 only	
REPT PCPAUD	6	UNIX RTR R21.29 and later	
REPT PCPMD FAULT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT PHASE	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT PINV	1	UNIX RTR R1.5 only	
REPT PLDMON ERROR	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT PMDBCOPY	1	UNIX RTR R1.5, R6.4, R21.11, R21.15 and R21.17	
REPT PMDBCOPY	1	UNIX RTR R21.3, R21.19 and later	
REPT PMGR ERROR	7	UNIX RTR R1.5 only	
REPT PMGR ERROR	7	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT PMSLOT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT POWER	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT PREPHASE	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT PRIV INSTR VIOL	1	UNIX RTR R1.5 only	
REPT PROTCTION VILTION	1	UNIX RTR R1.5 only	
REPT PARITY DIVERT	1	UNIX RTR R1.5 only	

Messages	No. of Sheets	Generic Range	Remarks
REPT PSM	2	UNIX RTR R1.5 and R6.4	
REPT PSM	2	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT PWRFLTC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

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REPT RCVRY CU	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT RCVRY DUI	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT RCVRY DUIC	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT RCVRY HSD	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT RCVRY HSDC	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT RCVRY IOP	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT RCVRY MT	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT RCVRY MTC	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT RCVRY MTTY	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT RCVRY MTTYC	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT RCVRY ROP	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT RCVRY SCC	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT RCVRY SCSDC	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT RCVRY SDL	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT RCVRY SDLC	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT RCVRY TTY	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
REPT RCVRY TTYC	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT REX UNABLE	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT REX SUMMARY	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT RMF	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT RMTGETTY	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT ROP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT RTS	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT SCC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT SCSD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT SCSDA	2	UNIX RTR R1.5 and R6.4	
REPT SCSDA	2	UNIX RTR R21.3, R21.11, R21.15 and later	
REPT SCSDC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT SDL	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT SDLC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT SDLRTC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT SDLRTN	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT SHLGETTY	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT SIM	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT SIMCHK	6	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT SIND	1	UNIX RTR R1.5 only	
REPT SINV	1	UNIX RTR R1.5 only	
REPT SIOF ERROR	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT SOP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT SPL SYNTAX ERROR	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
REPT SYSTEM	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
REPT TIME	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT TLP ERROR	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT 3/6 MN CHN ADDR	1	UNIX RTR R1.5 only	
REPT 3/6 MN CHN IO RESP	1	UNIX RTR R1.5 only	
REPT TTY	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT TTYC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT ULARP	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT UNIX INIT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
REPT VIRTUAL ADDR	1	UNIX RTR R1.5 only	
RFT FDUMP	1	UNIX RTR R1.5 only	
RMV CU	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RMV DCI	1	UNIX RTR R21.3, R21.15 and later	
RMV DFC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later	
RMV DUI	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RMV DUIC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RMV HSD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RMV HSDC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RMV IOP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RMV MHD	2	UNIX RTR R6.4, R21.3, R21.17 and later	
RMV MHD	2	UNIX RTR R21.11 and R21.15	
RMV MT	1	UNIX RTR R1.5 and R6.4	
RMV MT	1	UNIX RTR R21.3, R21.11, R21.15 and later	
RMV MTC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
RMV MTTY	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RMV MTTYC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RMV ROP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RMV SBUS	2	UNIX RTR R6.4 only	
RMV SBUS	1	UNIX RTR R21.3, R21.11, R21.15 and later	
RMV SCC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RMV SCSDC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RMV SDL	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RMV SDLC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RMV TTY	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RMV TTYC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RST CU	1	UNIX RTR R1.5, R6.4, 21.3, R21.11, R21.15 and later	
RST DCI	1	UNIX RTR R21.3, R21.15 and later	
RST DFC	1	UNIX RTR R1.5 and R6.4	
RST DFC	1	UNIX RTR R21.3, R21.11, R21.15 and later	
RST DUI	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RST DUIC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RST HSD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RST HSDC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RST IOP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RST MHD	2	UNIX RTR R1.5 and R6.4	
RST MHD	2	UNIX RTR R21.3, R21.11, R21.15 and later	
RST MT	2	UNIX RTR R1.5 and R6.4	
RST MT	2	UNIX RTR R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
RST MTC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RST MTTY	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RST MTTYC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RST ROP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RST SBUS	2	UNIX RTR R6.4 only	
RST SBUS	1	UNIX RTR R21.3, R21.11, R21.15 and later	
RST SCC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RST SCSDC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RST SDL	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RST SDLC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RST TTY	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RST TTYC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
SET CLK	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
SET IODRV	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
START OF	1	UNIX RTR R21.11, R21.15 and later	
STOP AUD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
STOP BKDISK	1	UNIX RTR R1.5, R6.4, R21.3 and R21.11	
STOP BKDISK	1	UNIX RTR R21.15 and later	
STOP DCI	1	UNIX RTR R21.3, R21.15 and later	
STOP DMQ	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
STOP EXC ANY	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
STOP EXC USER	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
STOP GEN	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
STOP OFLBOOT	2	UNIX RTR R21.3, R21.11, R21.15 and later	
STP DMQ	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
STP GEN	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
SW CU	1	UNIX RTR R1.5 only	
SW CU	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
SW OFLBOOT	3	UNIX RTR R21.3, R21.11, R21.15 and later	
SW PORTSW	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
TST SPL	1	UNIX RTR R1.5 only	
UPD APPLY	1	UNIX RTR R1.5, R6.4 and R21.3	
UPD AUTOCHK REPORT	2	UNIX RTR R21.11, R21.15 and later	
UPD AUTOMATION	1	UNIX RTR R21.11, R21.15 and later	
UPD BKOUT	1	UNIX RTR R1.5, R6.4 and R21.3	
UPD BLDBOOT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
UPD CLR	1	UNIX RTR R1.5, R6.4 and R21.3	
UPD COMMAND	1	UNIX RTR R21.11, R21.15 and later	
UPD CSCANS	3	UNIX RTR R21.11, R21.15 and later	
UPD CSCANS REPORT	1	UNIX RTR R21.11, R21.15 and later	
UPD DFC FLASH	2	UNIX RTR R21.11, R21.15 and later	
UPD DISPLAY	1	UNIX RTR R1.5, R6.4 and R21.3	
UPD DISPLAY	2	UNIX RTR R21.11, R21.15 and later	
UPD FLASH	3	UNIX RTR R21.11, R21.15 and later	
UPD FTRC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
UPD GEN APPLPROC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
UPD GEN BACKOUT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
UPD GEN COMMIT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
UPD GEN CONTINUE	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
UPD GEN ENTER	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
UPD GEN PROCEED	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
UPD GEN RESTORE	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
UPD ISG	2	UNIX RTR R1.5 and R6.4	
UPD ISG	2	UNIX RTR R21.3, R21.11, R21.15 and later	
UPD OMDB	1	UNIX RTR R1.5, R6.4 and R21.3	
UPD OMDB	1	UNIX RTR R21.11, R21.15 and later	
UPD OMIT	1	UNIX RTR R1.5, R6.4 and R21.3	
UPD PERM	1	UNIX RTR R1.5, R6.4 and R21.3	
UPD PURGE	1	UNIX RTR R1.5, R6.4 and R21.3	
UPD RECLAIM	1	UNIX RTR R1.5, R6.4 and R21.3	
UPD REPT	1	UNIX RTR R1.5, R6.4 and R21.3	
UPD REPT	1	UNIX RTR R21.11, R21.15 and later	
UPD RESET	1	UNIX RTR R1.5, R6.4 and R21.3	
UPD UPNM	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
UPD VERSION	1	UNIX RTR R21.11, R21.15 and later	
UPD VFY	1	UNIX RTR R1.5, R6.4 and R21.3	
UPD VFYCON	1	UNIX RTR R21.11, R21.15 and later	
VFY FILE	2	UNIX RTR R1.5 only	
VFY FILE	3	UNIX RTR R6.4 only	
VFY FILE	3	UNIX RTR R21.3, 21.11, R21.15 and later	
VFY MHD	2	UNIX RTR R1.5 only	
VFY MHD	2	UNIX RTR R6.4 only	
VFY MHD	3	UNIX RTR R21.3, R21.11, R21.15 and later	
VFY PAUTH	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
VFY PCGRP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
VFY PROFL	1	UNIX RTR R21.3, R21.11, R21.15 and later	
VFY TAPE	1	UNIX RTR R1.5, R6.4, R21.3 and R21.11	
VFY TAPE	2	UNIX RTR R21.15 and later	
VFY TAUTH	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
VFY TCGRP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
WHEN COND	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
WHEN PID	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
WHEN UID	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

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APPENDIX AUDIT C	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX AUDIT D	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX AUTH CODE	5	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
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APPENDIX DCI A	3	UNIX RTR R21.3 and R21.11	
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APPENDIX DCI A	3	UNIX RTR R21.31 and later	
APPENDIX DCI B	1	UNIX RTR R21.3, R21.11, R21.15 and later	
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APPENDIX DCI H	1	UNIX RTR R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
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APPENDIX DFC A	7	UNIX RTR R6.4 only	
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APPENDIX DFC A	10	UNIX RTR R21.11, 21.15, 21.19 R21.21 and R21.25	
APPENDIX DFC A	10	UNIX RTR R21.23 only	
APPENDIX DFC A	10	UNIX RTR R21.27 and 21.30	
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APPENDIX DFC C	1	UNIX RTR R1.5 and R6.4	
APPENDIX DFC C	4	UNIX RTR R21.3, R21.11, R21.15 and later	
APPENDIX DFC D	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX DFC E	1	UNIX RTR R1.5, R6.4, 21.3, R21.11, R21.15 and later	
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APPENDIX DFC H	1	UNIX RTR R21.11 and R21.15	
APPENDIX DFC I	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX DFC J	6	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX DFC K	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX DFC L	3	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX DFC M	11	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.6 and later	
APPENDIX DFC N	4	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later	
APPENDIX DFC O	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX DFC P	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX FAULT CODE	1	UNIX RTR R1.5, R6.4, R21.3,	

Messages	No. of Sheets	Generic Range	Remarks
		R21.11, R21.15 and later	
APPDX FLD MNT CODES	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APDX FLD UPDTE ER CD	5	UNIX R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX IOP A	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX IOP B	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX IOP C	1	UNIX RTR 1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX IOP D	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX IOP E	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX IOP F	32	UNIX RTR R1.5 and R6.4	
APPENDIX IOP F	41	UNIX RTR R21.3, R21.11, R21.15 thru R21.25	
APPENDIX IOP F	41	UNIX R21.27 and later	
APPENDIX IOP G	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX IOP H	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX IOP I	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX IOP J	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX LLA	4	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPDX MBR NMBRS B	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPDX MBR NMBRS C	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPDX MBR NMBRS D	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPDX MESSAGE CLASS	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX OMDB X REF	10	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX OP FNAME	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPENDIX OST	3	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
APPENDIX SUPR	17	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25	
APPENDIX SUPR	17	UNIX RTR R21.27 and later	
APPDX SUPR MNU PGE	35	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPDX SYS ERR CODES	3	UNIX RTR R1.5, R6.4 and R21.3	
APPDX SYS ERR CODES	3	UNIX RTR R21.11 and R21.15	
APPDX TAPE LIB ERRS	1	UNIX RTR R21.15 and later	
APPENDIX UTILITY ID	6	UNIX RTR R1.5, R6.4, R21.3 and R21.11	
APPENDIX UTILITY ID	6	UNIX RTR R21.15 and later	

PDS Output Messages

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Section 1

Introduction

1.1 Purpose of Manuals

The *AT&T 3B20D and 3B21D Computers UNIX® RTR Operating System Output Messages Manual* describes all output messages available on the maintenance interface channels of the AT&T 3B20D and 3B21D computers. The output messages documented in these manuals adhere to the Program Documentation Standards (PDS). For a full description of PDS, please refer to the *Program Documentation Standards* Reference Manual, available from AT&T Bell Laboratories.

The primary purpose of output messages is to report on the maintenance and administration functions initiated with input messages. To understand the contents of output messages, you should be familiar with the system architecture of the AT&T 3B20D or 3B21D computer. Output messages are typically used by system installers, maintainers, operators, and administrators, and are reported at the maintenance console.

The PDS output message manuals are a six-volume set designed to be used with the PDS *AT&T 3B20D and 3B21D Computers UNIX RTR Operating System PDS Input Messages* manuals. All messages in Issue 6 of these manuals represent the supported messages for generics UNIX RTR Release 1.5 and later.

1.2 Functions of Output Messages

Output messages perform the following functions:

- report status or action resulting from an input message request
- inform support personnel of changing system conditions
- report automatic operations performed by the system

You can use the information reported via output messages for system troubleshooting, monitoring subsystem status, and analyzing audit testing results.

Because output messages vary in length and complexity, you need to understand the basic information fields of an output message. Section 2 of this manual reviews the basic structure and format of output messages. When reading output messages, be sure to note the contents of the priority of action field (discussed in Section 2.2). This field indicates the importance of the message, as well as the urgency of any subsequent action that you may need to take in response to the message.

1.3 Organization of Manuals

The output message manual set contains three major sections of information:

- Overview (Volume 1 only)
- Message Descriptions (Volumes 1 through 5)
- Supplementary Information (Volume 6)

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The information found in each of these sections is described as follows.

Overview

The Overview section, found in Volume 1, introduces the manual set, explains the basic content of output messages and documentation format rules, and presents an alphabetical listing of all output messages.

Message Descriptions

This section contains a manual page for each output message available on the maintenance interface channels. The message descriptions are presented in alphabetical order in Volumes 1 through 5. For each message, the following information is documented:

- Keyblock
- Format
- Reason for Output
- Variable Fields
- Action to Be Taken
- Alarms
- References

Keyblock

An output message keyblock identifies the name of the message and the relevant software generic. The keyblock for each output message is located in the upper right corner of the first page of the message description. The following entries are found in every keyblock:

- ID - A unique identifier used in all output messages for organization. Note that the message ID is not necessarily the same as the message name. Message descriptions in the manuals are in alphabetical order by message IDs.

  If changes from one generic to another have affected a message, then the message is "split," and two or more separate message descriptions will be given for the same message name. Such a split will be indicated by the last character of the message ID. If separate message descriptions exist for the same message name, then the ID for the first message description will be followed by
  "-A", the second by "-B", and so on.

- GENERIC - The generic or range of generics to which a message applies. The following are some examples of possible release entries.

  UNIX RTR R1.5 and later Message applies to UNIX RTR Release 1.5 and later.

  UNIX RTR R1.5 - R6.3 Message applies to UNIX RTR Release 1.5 through UNIX RTR Release 6.3.

- TYPE - Identifies the message type: Input, Output, or Input/Output (indicates information relevant to both input and output message usage).

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- MESSAGE CLASS - Identifies the report destination name. For additional details, see the the Message Class Appendix, `MSGCLS-APP`.

Format

Message formats shows the different ways that output messages can be reported at the maintenance console. The format section of a message description is important, because it shows the exact order of the reported data variables.

For UNIX RTR R1.5 and later output messages, each format line also includes one or more associated Output Message Data Base (OMDB) keys, listed in the "REFERENCES" section at the end of the message. How to use OMDB keys is discussed in Section 2.

Reason for Output

This section offers a basic explanation of why an output message was generated.

Variable Fields

This section defines the variables used in the message. Variables for multiple formats are explained where appropriate. Additional explanatory text, notes, or tables may also be included to assist message interpretation.

Action to Be Taken

For each message, this section explains what action is required, if any, as a result of the message.

Alarms

Any alarms that are associated with this output message are listed in this section.

References

All associated OMDB keys are listed. All related input and output messages are listed. In addition, any related documentation references are given.

Supplementary Information

This section, which is located in Volume 6, contains the appendixes referred to in the output message descriptions. These appendixes provide further subsystem information that will help you understand output message content.

1.4 Error Reporting Procedures

We encourage you to report any errors that you may find in this set of manuals. Error reporting by users is an effective way of identifying inaccuracies that can be corrected in future issues of the books. For your convenience, an error-reporting form is provided in the back of this manual.

In addition, if you have any suggestions and/or comments that you would like to make about these manuals, please take a few minutes to note them. Your suggestions and comments will be used in preparing future issues. A comment card is also provided in the back of this manual for your use.

Section 2

User Guidelines

2.1 Introduction

Message fields and formats are important to note when using 3B20D and 3B21D computer output messages. This section contains a description of the standard output message fields and format, along with guidelines for interpreting the message descriptions provided in documentation.

2.2 Output Message Structure

The format of a 3B20D or 3B21D computer output message consists of a series of fields of information that are printed on the console in a prescribed order. Information fields report several different variables that must be interpreted. The following example shows how an output message might be displayed at the console:

```
   4321 82-02-19 20:59:30 12333
A 59 RMV CU 0 ABORTED 1
```

This sample message contains the following six fields:

`4321`	= Source identification (unique code used to identify instance of message).
`82-02-19 20:59:30`	= Date (year, month, day) and timestamp (hours, minutes, seconds).
`12333`	= Sequence number of message on console.
`A`	= Priority of action.
`59`	= Abbreviated time (minutes).
`RMV CU 0 ABORTED 1`	= Body of message.
`CLS`	= Class of message (optional field).

Most output messages have the fields illustrated above in the order shown. For system administrators and maintenance technicians, the most important fields to note are the date and timestamp, the priority of action, the abbreviated time, and the body of the message. Each of these fields conveys a specific type of information:

- Class field - Optional field that identifies the class of output messages. If this field is SPERR, then an error has occurred and the message sequence number will be the same as the previous message. See the `REPT-SOP` output message for more information.
- Full date and time field - Optional field that identifies the full date and timestamp associated with an output message (`82-02-19 20:59:30`). The reported information includes the month, day, and year (separated by dashes) followed by the hour, minutes, and seconds (separated by colons). The timestamp, which is based on a 24-hour clock, refers to the time that an output message was translated (ready for output); this time may or may not agree with the abbreviated time field.
- Priority of action field - Indicates the priority level of any subsequent required action and whether an audible alarm is generated (audible alarms are site-specific, but most sites typically have audible warnings for critical, major, and minor alarms). The

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characters or blanks printed in this field have the following meanings:

Printed Characters	Priority	Alarm/Nonalarm Action
*C	Critical	Accompanied by a critical alarm. Immediate action required.
**	Major	Accompanied by a major alarm, for example, power failure. Immediate action required.
*	Minor	Accompanied by a minor alarm. Action required.
M	Manual	Response to a manual request.
A	Action	Automatically generated. Action may be required.
	Information	Gives information about a specific event or problem. Automatically generated.

- Abbreviated time field - This field identifies the minutes after the hour when the message started printing (59). It may or may not be printed and may or may not be consistent with the timestamp. Control of the printing of this field is contained within the system. It is not user-definable.
- Body of message - Contains message data, including message name, termination report, and, if applicable, detailed results (`RMV CU 0 ABORTED 1`). When reading output messages, you should refer to the message descriptions for exact information about the reported message data.

2.3 Documentation Format Notation

Most output messages support several formats that vary depending on what is being reported. For example, the content of the `DGN-CU` output message varies depending on whether diagnostic reports are being given for an entire hardware unit or one diagnostic phase.

For each output message, you should refer to the message descriptions in these manuals for an explanation of the information that is reported. The documentation uses a standard format to help you interpret the reported data.

In the message descriptions, lowercase letters are used to denote variables. For example, the format of the `RMV-DFC` message is documented as:

`RMV-DFC` *a b*

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The variables *a* and *b* represent the member number of the DFC and the termination report of the message. The actual data variables printed at the console may be:

```
RMV DFC 1 COMPLETED
```

The message formats shown in the manuals use another notation that is not part of the message itself:

[] Brackets indicate optional responses.

{} Braces indicate two or more possible responses where one, and only one, is reported.

| OR bars separate entries within braces and brackets.

This notation is more relevant to input messages than output messages. In output messages, you will see this notation when a message contains a number of possible responses and one or more may be printed. For more information about how this notation is used in documentation, refer to Section 2 (User Guidelines) in Volume 1 of the *UNIX RTR MML Input Messages Manual* set.

For UNIX RTR R1.5 and later output messages, each format line may also have one or more associated Output Message Data Base (OMDB) keys, which are listed in the "REFERENCES" section at the end of the message. For example, the OMDB key reference for the the `RMV-DFC` output message appears in the "REFERENCES" section as follows:

OMDB Keys (UNIX RTR R1.5 and later)
There are OMDB keys of 308 and 601.

OMDB keys relate to the alarm level and message class for an output message. The alarm level indicates the severity of the output message; message class defines a set of output devices (for example, read-only printer, log file, or Switching Control Center System) to which an output message is reported or recorded. An output message format may have more than one OMDB key associated with it, because a message can be generated with different alarm levels or message classes. If a message format is not listed under the OMDB key references, it does not have an OMDB key associated with it (applicable to message formats that must be available even if the output message database is not).

OMDB keys are useful for the input messages that allow you to change the message class or alarm level for a message (`UPD:OMDB` and `OP:OMDB`) and for examining OMDB entries. To determine which output messages relate to a specific key number, you can use the input message `OP:OMDB;KEY=`*XX*, where *XX* is the key number. (See the input message description for `OP:OMDB` for more information about this.)

OMDB keys can also be used when an output message database entry becomes inaccessible. In this case, an output message will be reported to the console in "primitive mode", which means that the associated data is reported as a hexadecimal dump. The key for the message can be used with the hexadecimal dump to determine what the message would have reported had it been accessible from the database. For more information about this, see the OMDB Cross Reference Appendix in Volume 6, and the output message description for `REPT-CSOP,PRIMITIVE MODE`, which describes the layout of a primitive mode message and how to decode it.

Section 3

Output Message Alphabetical Indexes

Message Name	Message ID	Generic
ACTV OMDB	ACTV-OMDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW AUD	ALW-AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW CONFLOG	ALW-CONFLOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW DMQ	ALW-DMQ-A	UNIX RTR R1.5 only
ALW DMQ	ALW-DMQ-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW EAIINT	ALW-EAIINT	UNIX RTR R21.3, R21.11, R21.15 and later
ALW ERRCHK	ALW-ERRCHK-A	UNIX RTR R1.5 only
ALW ERRCHK	ALW-ERRCHK-B	UNIX RTR R6.4 only
ALW ERRCHK	ALW-ERRCHK-C	UNIX RTR R21.3, R21.11, R21.15 and later
ALW ERRINT	ALW-ERRINT-A	UNIX RTR R1.5 only
ALW ERRINT	ALW-ERRINT-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW ERRSRC	ALW-ERRSRC-A	UNIX RTR R1.5 only
ALW ERRSRC	ALW-ERRSRC-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW FILESYS ACCESS	ALW-F,ACCESS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW FILESYS MOUNT	ALW-F,MOUNT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW FILESYS OWNER	ALW-F,OWNER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW HDWCHK	ALW-HDWCHK-A	UNIX RTR R1.5 only
ALW HDWCHK	ALW-HDWCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW REX	ALW-REX	UNIX RTR R21.3, R21.11, R21.15 and later
ALW SCSD	ALW-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
ALW SFTCHK	ALW-SFTCHK-A	UNIX RTR R1.5 only
ALW SFTCHK	ALW-SFTCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW UMEM	ALW-UMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW UTIL	ALW-UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW UTILFLAG	ALW-UTILFLAG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ANALY TLPFILE	ANALY-TLPFILE-A	UNIX RTR R1.5, R6.4, and R21.3,
ANALY TLPFILE	ANALY-TLPFILE-B	UNIX RTR R21.11, R21.15, R21.17 and R21.31
ANALY TLPFILE	ANALY-TLPFILE-C	UNIX RTR R21.23, R21.27 and R21.30
ANALY TLPFILE	ANALY-TLPFILE-D	UNIX RTR R21.35 and later
APPENDIX ACKDGMNT DATABASE	APP-ACK-DB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT A	APP-AUD-APPA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT B	APP-AUD-APPB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT C	APP-AUD-APPC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT D	APP-AUD-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUTHORITY CODE	APP-AUTH-CODE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX BOOTDISKCHK	APP-BOOTDISKCHK	UNIX RTR R21.27 and later
APPENDIX DCI A	APP-DCI-APPA-A	UNIX RTR R21.3 and R21.11
APPENDIX DCI A	APP-DCI-APPA-B	UNIX RTR R21.15 thru R21.30
APPENDIX DCI A	APP-DCI-APPA-C	UNIX RTR R21.31 and later
APPENDIX DCI B	APP-DCI-APPB-A	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI C	APP-DCI-APPC	UNIX RTR R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
APPENDIX DCI D	APP-DCI-APPD	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI E	APP-DCI-APPE	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI F	APP-DCI-APPF	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI G	APP-DCI-APPG	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI H	APP-DCI-APPH	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DFC A	APP-DFC-APPA-A	UNIX RTR R1.5 only
APPENDIX DFC A	APP-DFC-APPA-B	UNIX RTR R6.4 only
APPENDIX DFC A	APP-DFC-APPA-C	UNIX RTR R21.3 only
APPENDIX DFC A	APP-DFC-APPA-D	UNIX RTR R21.11, R21.15, 21.19 thru 21.25
APPENDIX DFC A	APP-DFC-APPA-F	UNIX RTR R21.23 only
APPENDIX DFC A	APP-DFC-APPA-G	UNIX RTR R21.27 and R21.30
APPENDIX DFC A	APP-DFC-APPA-H	UNIX RTR R21.31, R21.33 and later
APPENDIX DFC B	APP-DFC-APPB-A	UNIX RTR R1.5 and R6.4
APPENDIX DFC B	APP-DFC-APPB-B	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DFC C	APP-DFC-APPC-A	UNIX RTR R1.5 and R6.4
APPENDIX DFC C	APP-DFC-APPC-B	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DFC D	APP-DFC-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC E	APP-DFC-APPE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC F	APP-DFC-APPF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC G	APP-DFC-APPG-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
APPENDIX DFC G	APP-DFC-APPG-B	UNIX RTR R21.11 and R21.15
APPENDIX DFC H	APP-DFC-APPH-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
APPENDIX DFC H	APP-DFC-APPH-B	UNIX RTR R21.11 and R21.15
APPENDIX DFC I	APP-DFC-APPI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
APPENDIX DFC J	APP-DFC-APPJ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC K	APP-DFC-APPK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC L	APP-DFC-APPL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC M	APP-DFC-APPM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC N	APP-DFC-APPN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC O	APP-DFC-APPO	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC P	APP-DFC-APPP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX FAULT CODE	APP-FAULT-CODE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX FIELD MAINT CODES	APP-FMC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX FLD UDATE ERROR CODES	APP-FUEC-APP	UNIX R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP A	APP-IOP-APPA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP B	APP-IOP-APPB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP C	APP-IOP-APPC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP D	APP-IOP-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP E	APP-IOP-APPE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP F	APP-IOP-APPF-A	UNIX RTR R1.5 and R6.4
APPENDIX IOP F	APP-IOP-APPF-B	UNIX RTR R21.3, R21.11, R21.15 thru R21.25
APPENDIX IOP F	APP-IOP-APPF-C	UNIX RTR R21.27 and later

Message Name	Message ID	Generic
APPENDIX IOP G	APP-IOP-APPG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP H	APP-IOP-APPH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP I	APP-IOP-APPI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP J	APP-IOP-APPJ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX LLA	APP-LLA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MEMBER NUMBERS B	APP-MEM-NUM-APPB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MEMBER NUMBERS C	APP-MEM-NUM-APPC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MEMBER NUMBERS D	APP-MEM-NUM-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MESSAGE CLASS	APP-MSGCLASS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX OMDB X REF	APP-OMDB-REF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX OP FNAME	APP-OP-FNAME	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX OST	APP-OST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX SUPR	APP-SUPR-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
APPENDIX SUPR	APP-SUPR-B	UNIX RTR R21.27 and later
APPENDIX SUPR MENU PAGE	APP-SUPR-MENU-PG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX SYSTEM ERROR CODES	APP-SYSERR-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
APPENDIX SYSTEM ERROR CODES	APP-SYSERR-B	UNIX RTR R21.11 and R21.15
APPENDIX TAPE LIBRARY ERRORS	APP-TAPE-LIB	UNIX RTR R21.15 and later
APPENDIX UTILITY ID	APP-UTIL-ID-A	UNIX RTR R1.5, R6.4, R21.3, and R21.11
APPENDIX UTILITY ID	APP-UTIL-ID-B	UNIX RTR R21.15 and later

Message Name	Message ID	Generic
APPLY OMDB	APPLY-OMDB-A	UNIX RTR R1.5 only
APPLY OMDB	APPLY-OMDB-B	UNIX RTR R6.4 and R21.3
APPLY OMDB	APPLY-OMDB-C	UNIX RTR R21.11, R21.15 and later
AUD CUMEM	AUD-CUMEM-A	UNIX RTR R1.5 only
AUD CUMEM	AUD-CUMEM-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD CUSTAT	AUD-CUSTAT-A	UNIX RTR R1.5 only
AUD CUSTAT	AUD-CUSTAT-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD ECD	AUD-ECD-A	UNIX RTR R1.5 only
AUD ECD	AUD-ECD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD ECDOWN	AUD-ECDOWN-A	UNIX RTR R1.5 only
AUD ECDOWN	AUD-ECDOWN-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 1	AUD-FMGR1-A	UNIX RTR R1.5 only
AUD FMGR 1	AUD-FMGR1-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 2	AUD-FMGR2-A	UNIX RTR R1.5 only
AUD FMGR 2	AUD-FMGR2-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 3	AUD-FMGR3-A	UNIX RTR R1.5 only
AUD FMGR 3	AUD-FMGR3-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 4	AUD-FMGR4-A	UNIX RTR R1.5 only
AUD FMGR 4	AUD-FMGR4-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 5	AUD-FMGR5-A	UNIX RTR R1.5 only
AUD FMGR 5	AUD-FMGR5-B	UNIX RTR R6.4 only
AUD FMGR 5	AUD-FMGR5-C	UNIX RTR R21.3, R21.11, R21.15 and later
AUD FMGR 6	AUD-FMGR6-A	UNIX RTR R1.5 only
AUD FMGR 6	AUD-FMGR6-B	UNIX RTR R6.4, R21.11, R21.15 thru R21.27
AUD FMGR 6	AUD-FMGR6-C	UNIX RTR R21.3, R21.29 and later
AUD FMGR 7	AUD-FMGR7-A	UNIX RTR R1.5 only
AUD FMGR 7	AUD-FMGR7-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
AUD FMGR 8	AUD-FMGR8-A	UNIX RTR R1.5 only
AUD FMGR 8	AUD-FMGR8-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 9	AUD-FMGR9-A	UNIX RTR R1.5 only
AUD FMGR 9	AUD-FMGR9-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FSBLK	AUD-FSBLK-A	UNIX RTR R1.5 only
AUD FSBLK	AUD-FSBLK-B	UNIX RTR R6.4 only
AUD FSBLK	AUD-FSBLK-C	UNIX RTR R21.3 and R21.11
AUD FSBLK	AUD-FSBLK-D	UNIX RTR R21.15 and later
AUD FSCMPT	AUD-FSCMPT-A	UNIX RTR R1.5 only
AUD FSCMPT	AUD-FSCMPT-B	UNIX RTR R6.4 only
AUD FSCMPT	AUD-FSCMPT-C	UNIX RTR R21.3 and R21.11
AUD FSCMPT	AUD-FSCMPT-D	UNIX RTR R21.15 and later
AUD FSLINK	AUD-FSLINK-A	UNIX RTR R1.5 only
AUD FSLINK	AUD-FSLINK-B	UNIX RTR R6.4 only
AUD FSLINK	AUD-FSLINK-C	UNIX RTR R21.3 and R21.11
AUD FSLINK	AUD-FSLINK-D	UNIX RTR R21.15 and later
AUD MMGR	AUD-MMGR-A	UNIX RTR R1.5 only
AUD MMGR	AUD-MMGR-B	UNIX RTR R6.4 only
AUD MMGR	AUD-MMGR-C	UNIX RTR R21.3, R21.11, R21.15 and later
AUD MSGBUF	AUD-MSGBUF-A	UNIX RTR R1.5 only
AUD MSGBUF	AUD-MSGBUF-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD PMS	AUD-PMS-A	UNIX RTR R1.5 only
AUD PMS	AUD-PMS-B	UNIX RTR R6.4, R21.11, R21.15 and R21.17
AUD PMS	AUD-PMS-C	UNIX RTR R21.3, R21.19 and later
AUD PROAD	AUD-PROAD-A	UNIX RTR R1.5 only
AUD PROAD	AUD-PROAD-B	UNIX RTR R6.4 only
AUD PROAD	AUD-PROAD-C	UNIX RTR R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
CFR DUPLEXDISKS	CFR-DUPLEXDISKS	UNIX R21.27 and later
CLR EMERDMP	CLR-EMERDMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR FILESYS DIR	CLR-F,DIR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR FILESYS FILE	CLR-F,FILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR FANALM	CLR-FANALM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR IMCAT	CLR-IMCAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR IODRV	CLR-IODRV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR IOMEM	CLR-IOMEM	UNIX RTR R21.27 and later
CLR MHD MAEC	CLR-M,MAEC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
CLR PTN	CLR-PTN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR UMEM	CLR-UMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR UTIL	CLR-UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR UTILFLAG	CLR-UTILFLAG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CMPR DISK CORE	CMPR-D,CORE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CMPR MHD	CMPR-MHD-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
CMPR MHD	CMPR-MHD-B	UNIX RTR R21.11 and R21.15
COPY ACTDISK	COPY-ACTDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY ADDR	COPY-ADDR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY BKDISK	COPY-BKDISK-A	UNIX RTR R1.5 and R6.4
COPY BKDISK	COPY-BKDISK-B	UNIX RTR R21.3 and R21.11
COPY BKDISK	COPY-BKDISK-C	UNIX RTR R21.15 and later
COPY BKTAPE	COPY-BKTAPE	UNIX RTR R21.15 and later

Message Name	Message ID	Generic
COPY DIFF SRC	COPY-DIFF,SRC-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
COPY DIFF SRC	COPY-DIFF,SRC-B	UNIX RTR R21.11 and R21.15
COPY FILESYS CFILE	COPY-F,CFILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY FILESYS FILE	COPY-F,FILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY OOSDISK	COPY-OOSDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY PTN ALL	COPY-P,ALL-A	UNIX RTR R1.5, R6.4, R21.3 and R21.11
COPY PTN ALL	COPY-P,ALL-B	UNIX RTR R21.15 and later
COPY PID	COPY-PID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY REG	COPY-REG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY SPDISK	COPY-SPDISK-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
COPY SPDISK	COPY-SPDISK-B	UNIX RTR R21.27 and later
COPY TAPE EMERDMP	COPY-T,EMERDMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE IN	COPY-T,IN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE OUT	COPY-T,OUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE TEST	COPY-T,TEST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE TOP	COPY-T,TOP	UNIX RTR R21.3, R21.11, R21.15 and later
COPY UID	COPY-UID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY UVAR	COPY-UVAR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CU RECOVERY	CU-RECOVERY	UNIX RTR R21.11, R21.15 and later
DEL LOG	DEL-LOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
DGN AUDIT	DGN-AUDIT	UNIX RTR R1.5 only
DGN CU	DGN-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN CU MASC	DGN-CU,MASC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN DCI	DGN-DCI	UNIX RTR R21.3, R21.11, R21.15 and later
DGN DFC	DGN-DFC-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
DGN DFC	DGN-DFC-B	UNIX RTR R21.27 and later
DGN DUIC	DGN-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN HSDC	DGN-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN IOP	DGN-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN MHD	DGN-MHD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN MT	DGN-MT	UNIX RTR R21.3, R21.11, R21.15 and later
DGN MTC	DGN-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN MTTYC	DGN-MTTYC-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
DGN MTTYC	DGN-MTTYC-B	UNIX RTR R21.27 and later
DGN SCSDC	DGN-SDSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN SDLC	DGN-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN TTYC	DGN-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP ADDR	DUMP-ADDR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP BKTAPE	DUMP-BKTAPE	UNIX RTR R21.15 and later
DUMP CACHE	DUMP-CACHE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP FILE ALL	DUMP-F,ALL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
DUMP FILE FORMAT	DUMP-F,FORMAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP FILE PARTL	DUMP-F,PARTL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP KERN	DUMP-KERN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP MHD BLOCK	DUMP-MHD,BLK-A	UNIX RTR R1.5 only
DUMP MHD BLOCK	DUMP-MHD,BLK-B	UNIX RTR R6.4 only
DUMP MHD BLOCK	DUMP-MHD,BLK-C	UNIX RTR R21.3, R21.11, R21.15 and later
DUMP MHD DEFECT	DUMP-MHD,DEF-A	UNIX RTR R1.5 only
DUMP MHD DEFECT	DUMP-MHD,DEF-B	UNIX RTR R6.4 only
DUMP MHD DEFECT	DUMP-MHD,DEF-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.21
DUMP MHD DEFECT	DUMP-MHD,DEF-D	UNIX RTR R21.23 and later
DUMP MHD VTOC	DUMP-MHD,VTO-A	UNIX RTR R1.5 only
DUMP MHD VTOC	DUMP-MHD,VTO-B	UNIX RTR R6.4 only
DUMP MHD VTOC	DUMP-MHD,VTO-C	UNIX RTR R21.3, R21.11, R21.15 and later
DUMP PID	DUMP-PID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP PMEM	DUMP-PMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP REG	DUMP-REG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP UID	DUMP-UID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP UVAR	DUMP-UVAR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX CU	EX-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX DCI	EX-DCI	UNIX RTR R21.3, R21.15 and later
EX DFC	EX-DFC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX DUIC	EX-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX HSDC	EX-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
EX IOP	EX-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX LDPARM	EX LDPARM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX LOOP	EX-LOOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX MHD	EX-MHD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX MT	EX-MT	UNIX RTR R21.3, R21.11, R21.15 and later
EX MTC	EX-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX MTTYC	EX-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX PAUSE	EX-PAUSE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX SCSDC	EX-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX SDLC	EX-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
EX STEP	EX-STEP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX STOP	EX-STOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX TTYC	EX-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EXC ENVIR PROC	EXC-E,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EXC ENVIR UPROC	EXC-E,UPROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EXC OFLBOOT	EXC-OFLBOOT-A	UNIX RTR R21.3 and R21.11
EXC OFLBOOT	EXC-OFLBOOT-B	UNIX RTR R21.15 and later
IN FILE APND	IN-F,APND	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN FILE DEL	IN-F,DEL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN FILE REPL	IN-F,REPL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN FILESYS DIR	IN-FI,DIR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
IN REMOTE	IN-REM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE ERROR	IN-REM,ERROR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE INITIALIZED	IN-REM,INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE STARTED	IN-REM,START	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE STOPPED	IN-REM,STOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN XFER	IN-XFER	UNIX RTR R21.11, R21.15 and later
INH AUD	INH-AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH CONFLOG	INH-CONFLOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH DMQ	INH-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH EAIINT	INH-EAIINT	UNIX RTR R21.3, R21.11, R21.15 and later
INH ERRCHK	INH-ERRCHK-A	UNIX RTR R1.5 only
INH ERRCHK	INH-ERRCHK-B	UNIX RTR R6.4 only
INH ERRCHK	INH-ERRCHK-C	UNIX RTR R21.3, R21.11, R21.15 and later
INH ERRINT	INH-ERRINT-A	UNIX RTR R1.5 only
INH ERRINT	INH-ERRINT-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH ERRSRC	INH-ERRSRC-A	UNIX RTR R1.5 only
INH ERRSRC	INH-ERRSRC-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH FILESYS UMOUNT	INH-F,UMOUNT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH HDWCHK	INH-HDWCHK-A	UNIX RTR R1.5 only
INH HDWCHK	INH-HDWCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH REX	INH-REX	UNIX RTR R21.3, R21.11, R21.15 and later
INH SCSD	INH-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
INH SFTCHK	INH-SFTCHK-A	UNIX RTR R1.5 only
INH SFTCHK	INH-SFTCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH UMEM	INH-UMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH UTIL	INH-UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH UTILFLAG	INH-UTILFLAG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INIT MHD	INIT-MHD-A	UNIX RTR R1.5 only
INIT MHD	INIT-MHD-B	UNIX RTR R6.4 only
INIT MHD	INIT-MHD-C	UNIX RTR R21.3, R21.11, R21.15 and later
INIT ULARP	INIT-ULARP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INIT UMEM	INIT-UMEM-A	UNIX RTR R1.5 only
INIT UMEM	INIT-UMEM-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
LOAD ADDR	LOAD-ADDR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
LOAD DFC PUMP	LOAD-DFC,PUMP-A	UNIX RTR R6.4 only
LOAD DFC PUMP	LOAD-DFC,PUMP-B	UNIX RTR R21.3 and R21.11
LOAD DFC PUMP	LOAD-DFC,PUMP-C	UNIX RTR R21.15 and later
LOAD DFC RAM	LOAD-DFC,RAM-A	UNIX RTR R6.4 only
LOAD DFC RAM	LOAD-DFC,RAM-B	UNIX RTR R21.3, R21.11, R21.15, and later
LOAD MHD	LOAD-MHD-A	UNIX RTR R1.5 and R6.4
LOAD MHD	LOAD-MHD-B	UNIX RTR R21.3 and R21.11
LOAD MHD	LOAD-MHD-C	UNIX RTR R21.15 and later
LOAD MHD DEFECT	LOAD-MHD,DEF-A	UNIX RTR R1.5 only
LOAD MHD DEFECT	LOAD-MHD,DEF-B	UNIX RTR R6.4 only
LOAD MHD DEFECT	LOAD-MHD,DEF-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.21
LOAD MHD DEFECT	LOAD-MHD,DEF-D	UNIX RTR R21.23 only
LOAD MHD DEFECT	LOAD-MHD,DEF-E	UNIX RTR R21.25 and later
LOAD MHD FIRMWARE	LOAD-MHD,FIRM-A	UNIX RTR R6.4 only
LOAD MHD FIRMWARE	LOAD-MHD,FIRM-B	UNIX RTR R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
LOAD PMEM	LOAD-PMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
LOAD REG	LOAD-REG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
LOAD UVAR	LOAD-UVAR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ABD	OP-ABD	UNIX RTR R21.27 and later
OP ACT	OP-ACT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP AUD	OP-AUD-A	UNIX RTR R1.5 only
OP AUD	OP-AUD-B	UNIX RTR R6.4 only
OP AUD	OP-AUD-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP AUDERR	OP-AUDERR-A	UNIX RTR R1.5 only
OP AUDERR	OP-AUDERR-B	UNIX RTR R6.4 only
OP AUDERR	OP-AUDERR-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP CFGSTAT	OP-CFGSTAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP CLK	OP-CLK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP CONTROLLER INFO	OP-CONTROLLER,INFO	UNIX RTR R21.37 and later
OP DEVICE INFO	OP-DEVICE,INFO	UNIX RTR R21.37 and later
OP DFC INFO	OP-DFC,INFO-A	UNIX RTR R1.5 only
OP DFC INFO	OP-DFC,INFO-B	UNIX RTR R6.4 only
OP DFC INFO	OP-DFC,INFO-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.25
OP DFC INFO	OP-DFC-INFO-D	UNIX RTR R21.27 and later
OP DFCELOG	OP-DFCELOG-A	UNIX RTR R1.5 only
OP DFCELOG	OP-DFCELOG-B	UNIX RTR R6.4 only
OP DFCELOG	OP-DFCELOG-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP DMQ	OP-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP EMERSTAT	OP-EMERSTAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
OP ERRCHK	OP-ERRCHK-A	UNIX RTR R1.5 and R6.4
OP ERRCHK	OP-ERRCHK-B	UNIX RTR R21.3, R21.11, R21.15 and later
OP FNAME	OP-FNAME-A	UNIX RTR R1.5 and R6.4
OP FNAME	OP-FNAME-B	UNIX RTR R21.3, R21.11, R21.15 and later
OP GEN READLOG	OP-G,READLOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP GROW	OP-GROW	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP INIT	OP-INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP IODRV	OP-IODRV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP IOP INFO	OP-IOP,INFO	UNIX RTR R21.27 and later
OP LOG	OP-LOG-A	UNIX RTR R1.5 and R6.4
OP LOG	OP-LOG-B	UNIX RTR R21.3, R21.,11, R21.15 and later
OP MEMERRS	OP-MEMERRS-A	UNIX RTR R1.5 only
OP MEMERRS	OP-MEMERRS-B	UNIX RTR R6.4 only
OP MEMERRS	OP-MEMERRS-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP MHD INFO	OP-MHD,INFO-A	UNIX RTR R1.5 only
OP MHD INFO	OP-MHD,INFO-B	UNIX RTR R6.4 only
OP MHD INFO	OP-MHD,INFO-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.25
OP MHD INFO	OP-MHD,INFO-D	UNIX RTR R21.27 and later
OP MT INFO	OP-MT,INFO	UNIX RTR R21.3, R21.11, R21.15 and later
OP OFL	OP-OFL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP OMDB	OP-OMDB-A	UNIX RTR R1.5, R6.4 and R21.3
OP OMDB	OP-OMDB-B	UNIX RTR R21.11, R21.15 and later

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Message Name	Message ID	Generic
OP OOS	OP-OOS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP PMCR ERROR	OP-PMCR-A	UNIX RTR R1.5, R6.4 and R21.3
OP PMCR ERROR	OP-PMCR-B	UNIX RTR R21.11, R21.15 and later
OP REXINH	OP-REXINH-A	UNIX RTR R1.5 and R6.4
OP REXINH	OP-REXINH-B	UNIX RTR R21.3, R21.11, R21.15 and later
OP SCSD	OP-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS DISKUSE	OP-ST,DISKUSE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS FILESYS	OP-ST,FILESYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS FREEDISK	OP-ST,FRDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP TATUS LISTDIR	OP-ST,LSTDIR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS PORTS	OP-ST,PORTS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS PROCESS	OP-ST,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS SUM	OP-ST,SUM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STBY	OP-STBY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ULARP COMMAND	OP-ULARP,COM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ULARP EXECSEQ	OP-ULARP,EXEC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ULARP PROCESS	OP-ULARP,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP UMEM	OP-UMEM-A	UNIX RTR R1.5 only
OP UMEM	OP-UMEM-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
OP UNAV	OP-UNAV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP UNEQIP	OP-UNEQIP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
OP UTIL	OP-UTIL-A	UNIX RTR R1.5 only
OP UTIL	OP-UTIL-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
OP VERSION	OP-VERSION	UNIX RTR R21.11, R21.15 and later
ORD SCSD	ORD-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
PRM 0	PRM-0	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTECD VFY	RCV-DMTECD,VFY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTSG VFY	RCV-DMTSG,VFY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU	RCV-MENU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCVRY ALARM	RCVRY-ALARM	UNIX RTR R21.11, R21.15 and later
RCVRY CU	RCVRY-CU	UNIX RTR R1.5 only
RCVRY DUI	RCVRY-DUI	UNIX RTR R1.5 only
RCVRY DUIC	RCVRY-DUIC	UNIX RTR R1.5 only
RCVRY HSD	RCVRY-HSD	UNIX RTR R1.5 only
RCVRY HSDC	RCVRY-HSDC	UNIX RTR R1.5 only
RCVRY IOP	RCVRY-IOP	UNIX RTR R1.5 only
RCVRY MT	RCVRY-MT	UNIX RTR R1.5 only
RCVRY MTC	RCVRY-MTC	UNIX RTR R1.5 only
RCVRY MTTY	RCVRY-MTTY	UNIX RTR R1.5 only
RCVRY MTTYC	RCVRY-MTTYC	UNIX RTR R1.5 only
RCVRY ROP	RCVRY-ROP	UNIX RTR R1.5 only
RCVRY SCC	RCVRY-SCC	UNIX RTR R1.5 only
RCVRY SCSDC	RCVRY-SCSDC	UNIX RTR R1.5 only
RCVRY SDL	RCVRY-SDL	UNIX RTR R1.5 only
RCVRY SDLC	RCVRY-SDLC	UNIX RTR R1.5 only
RCVRY TTY	RCVRY-TTY	UNIX RTR R1.5 only
RCVRY TTYC	RCVRY-TTYC	UNIX RTR R1.5 only
REPT ADP	REPT-ADP-A	UNIX RTR R1.5 only
REPT ADP	REPT-ADP-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT ADP AUTORST	REPT-ADP,AUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT ADP INHIBIT ACTIVE	REPT-ADP,INHIBIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ADP INTERFACE ERROR	REPT-ADP,INTER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ADPAB	REPT-ADPAB-A	UNIX RTR R1.5 only
REPT ADPAB	REPT-ADPAB-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT ANALY TLP	REPT-ANALY,TLP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT AUDSTAT	REPT-AUDSTAT-A	UNIX RTR R1.5 only
REPT AUDSTAT	REPT-AUDSTAT-B	UNIX RTR R6.4 only
REPT AUDSTAT	REPT-AUDSTAT-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT AUTORST FAILURE	REPT-AUTORST-A	UNIX RTR R1.5 only
REPT AUTORST FAILURE	REPT-AUTORST-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT BAD ALIGN	REPT-BAD,ALIGN	UNIX RTR R1.5 only
REPT BAD OST	REPT-BAD,OST	UNIX RTR R1.5 only
REPT BAD PRTY DIO	REPT-BAD,PRTY-DIO	UNIX RTR R1.5 only
REPT BAD PRTY DMA	REPT-BAD,PRTY-DMA	UNIX RTR R1.5 only
REPT BDG	REPT-BDG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT BWMINT	REPT-BWMINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CCIO COMMAND	REPT-CCIO,CMD	UNIX RTR R1.5 only
REPT CCIO DATA PARITY	REPT-CCIO,DATA	UNIX RTR R1.5 only
REPT CD CIA	REPT-CD,CIA0	UNIX RTR R21.3, R21.11, R21.15 and later
REPT C/D DLGGETTY	REPT-CD,DLGGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT C/D ERROR	REPT-CD,ERROR-A	UNIX RTR R1.5 only
REPT C/D ERROR	REPT-CD,ERROR-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT C/D GETTY	REPT-CD,GETTY-A	UNIX RTR R1.5 only
REPT C/D GETTY	REPT-CD,GETTY-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT C/D POKER	REPT-CD,POKER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT C/D STARTER	REPT-CD,STARTER-A	UNIX RTR R1.5 only
REPT C/D STARTER	REPT-CD,STARTER-B	UNIX RTR R6.4, R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT C/D STARTER	REPT-CD,STARTER-C	UNIX RTR R21.3 only
REPT CFT LIB	REPT-CFT,LIB-A	UNIX RTR R1.5 and R6.4
REPT CFT LIB	REPT-CFT,LIB-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT CFTSHL	REPT-CFTSHL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CONFIG FAULT	REPT-CONFIG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CONFIG RECONFIGURATION	REPT-CONFIG,REC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
REPT CSOP	REPT-CSOP-A	UNIX RTR R1.5 only
REPT CSOP	REPT-CSOP-B	UNIX RTR R6.4 only
REPT CSOP	REPT-CSOP-C	UNIX RTR R21.3 only
REPT CSOP	REPT-CSOP-D	UNIX RTR R21.11, R21.15 and later
REPT CSOP FORMATTING	REPT-CSOP,FORM-A	UNIX RTR R1.5 and R6.4
REPT CSOP FORMATTING	REPT-CSOP,FORM-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT CSOP IN	REPT-CSOP,IN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CSOP PRIM	REPT-CSOP,PRIM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CU	REPT-CU-A	UNIX RTR R1.5, R6.4, R21.3, R21.11 and R21.15
REPT CU	REPT-CU-B	UNIX RTR R21.17 and later
REPT CURSTRMV FAULT	REPT-CURSTRMV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DCI	REPT-DCI	UNIX RTR R21.3, R21.11, R21.15 thru R21.30
REPT DCI	REPT-DCI	UNIX RTR R21.31 and later
REPT DCIDIP	REPT-DCIDIP	UNIX RTR R21.17 and later
REPT DEGROWTH	REPT-DEGROWTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DFC	REPT-DFC-A	UNIX RTR R1.5 only
REPT DFC	REPT-DFC-B	UNIX RTR R6.4 only.
REPT DFC	REPT-DFC-C	UNIX RTR R21.3 only
REPT DFC	REPT-DFC-D	UNIX RTR R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT DFC PUMP	REPT-DFC,PUMP	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT DFCE	REPT-DFCE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DFCI	REPT-DFCI-A	UNIX RTR R1.5 only
REPT DFCI	REPT-DFCI-B	UNIX RTR R6.4 only
REPT DFCI	REPT-DFCI-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT DFRMVRST ERROR	REPT-DFRMVRST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DGN	REPT-DGN-A	UNIX RTR R1.5 and R6.4
REPT DGN	REPT-DGN-B	UNIX RTR R21.3 only
REPT DGN	REPT-DGN-C	UNIX RTR R21.11, R21.15 and later
REPT DGN AUDIT	REPT-DGN,AUDIT	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT DIAMON	REPT-DIAMON	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DIO ACK	REPT-DIO,ACK	UNIX RTR R1.5 only
REPT DIO READY	REPT-DIO,READY	UNIX RTR R1.5 only
REPT DIOP	REPT-DIOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DKDIP	REPT-DKDIP-A	UNIX RTR R1.5 only
REPT DKDIP	REPT-DKDIP-B	UNIX RTR R6.4 only
REPT DKDIP	REPT-DKDIP-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT DKDRV	REPT-DKDRV-A	UNIX RTR R1.5 only
REPT DKDRV	REPT-DKDRV-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT DLGGETTY	REPT-DLGGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DLGSHL	REPT-DLGSHL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DMA ADDR	REPT-DMA,ADDR	UNIX RTR R1.5 only
REPT DMA ASW	REPT-DMA,ASW	UNIX RTR R1.5 only
REPT DMA CHNL	REPT-DMA,CHNL	UNIX RTR R1.5 only

Message Name	Message ID	Generic
REPT DMA RAM	REPT-DMA,RAM	UNIX RTR R1.5 only
REPT DMA ROM	REPT-DMA,ROM	UNIX RTR R1.5 only
REPT DMQ	REPT-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DUI	REPT-DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DUIC	REPT-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT EAI	REPT-EAI-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
REPT EAI	REPT-EAI-B	UNIX RTR R21.27 and later
REPT ECDMAN	REPT-ECDMAN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT EMERGENCY DUMP	REPT-EMER,DUMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ERRPORT	REPT-ERRPORT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ERSLOT	REPT-ERSLOT-A	UNIX RTR R6.4 only
REPT ERSLOT	REPT-ERSLOT-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT FAN	REPT-FAN-A	UNIX RTR R1.5 and R6.4
REPT FAN	REPT-FAN-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT FAN MULTI	REPT-FF,MULTI-A	UNIX RTR R1.5, R21.3, R21.11, R21.15 and later
REPT FAN MULTI	REPT-FF,MULTI-B	UNIX RTR R6.4 only
REPT FAN SINGLE	REPT-FF,SING-A	UNIX RTR R1.5, R21.3, R21.11, R21.15 and later
REPT FAN SINGLE	REPT-FF,SING-B	UNIX RTR R6.4 only
REPT FIELD MAINT	REPT-FIELD,MAINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FILESYS	REPT-FILESYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR	REPT-FMGR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR DSW	REPT-FMGR,DSW	UNIX RTR R21.3, R21.11, R21.15 and later
REPT FMGR ECD	REPT-FMGR,ECD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT FMGR FILSYS	REPT-FMGR,FILSYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR MOUNT	REPT-FMGR,MOUNT	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR NONTASK FAULT	REPT-FMGR,NF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR TABLE OVERLOAD	REPT-FMGR,OVLD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR PROCESS	REPT-FMGR,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR TASK STATUS	REPT-FMGR,TS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR UMNTFLD	REPT-FMGR-UMNTFLD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR UNMNT	REPT-FMGR,UNMNT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR WNDW	REPT-FMGR,WNDW	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FUSE ALARM	REPT-FUSE,ALM	UNIX RTR R21.3, R21.11, R21.15 and later
REPT GRASP	REPT-GRASP-A	UNIX RTR R1.5 only
REPT GRASP	REPT-GRASP-B	UNIX RTR R6.4 only
REPT GRASP	REPT-GRASP-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT GROWTH	REPT-GROWTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT HSD	REPT-HSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT HSDC	REPT-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ILL INSTRCT	REPT-ILL,INSTRCT	UNIX RTR R1.5 only
REPT ILL OPRND	REPT-ILL,OPRND	UNIX RTR R1.5 only
REPT ILL STACK	REPT-ILL,STACK	UNIX RTR R1.5 only
REPT INHADM	REPT-INHADM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT INHIBIT	REPT-INHIBIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT INIT	REPT-INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT INVLD ER INT	REPT-INVLD,ER-INT	UNIX RTR R1.5 only
REPT INVLD ER NUM	REPT-INVLD,ER-NUM	UNIX RTR R1.5 only

Message Name	Message ID	Generic
REPT INVLD MNTC	REPT-INVLD,MNTC	UNIX RTR R1.5 only
REPT IO CHNL ERR	REPT-IO,CHNL-ERR	UNIX RTR R1.5 only
REPT IODRV ATTRIBUTE	REPT-IODRV,AT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IODRV	REPT-IODRV,ERR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IODRV	REPT-IODRV,ERROR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IODRV	REPT-IODRV,FAULT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IOP	REPT-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IORMVRST ERROR	REPT-IORMVRST	UNIX RTR R1.5, R6.4, R21.3, and later
REPT KAUDPRC	REPT-KAUDPRC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT KLLA	REPT-KLLA	UNIX RTR R1.5 only
REPT LIBC ARGU	REPT-LIBC,ARGU	UNIX RTR R21.3, R21.11, R21.15 and later
REPT LIBC ER STRT	REPT-LIBC,ER-STRT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT LIBC EX	REPT-LIBC,EX	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT LIBC FAULT	REPT-LIBC,FL-A	UNIX RTR R1.5 and R6.4
REPT LIBC FAULT	REPT-LIBC,FL-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT LIBC FORK	REPT-LIBC,FO	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT LIBC PROGRAM	REPT-LIBC,PROGRAM	UNIX RTR R21.3, R21.11, R21.15 and later
REPT LIBC SAVE	REPT-LIBC,SAVE	UNIX RTR R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT LIBC START	REPT-LIBC,START	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MAINTENANCE REQUESTS	REPT-MAINT,REQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MAPFILE	REPT-MAPFILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MAXINTVL	REPT-MAXINTVL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MBD	REPT-MBD	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MEMORY PRTY	REPT-MEMORY,PRTY	UNIX RTR R1.5 only
REPT MHD	REPT-MHD-A	UNIX RTR R1.5 only
REPT MHD	REPT-MHD-B	UNIX RTR R6.4 only
REPT MHD	REPT-MHD-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT MIRA	REPT-MIRA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MKDSK	REPT-MKDSK	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR001	REPT-MMGR001	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR002	REPT-MMGR002	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR003	REPT-MMGR003-A	UNIX RTR R1.5 only
REPT MMGR003	REPT-MMGR003-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR004	REPT-MMGR004	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR005	REPT-MMGR005	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MOP	REPT-MOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MT	REPT-MT-A	UNIX RTR R1.5 and R6.4
REPT MT	REPT-MT-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT MTC	REPT-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT MTTY	REPT-MTTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MTTYC	REPT-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MY STORE A	REPT-MY,STORE-A	UNIX RTR R1.5 only
REPT MY STORE B	REPT-MY,STORE-B	UNIX RTR R1.5 only
REPT MY STORE C	REPT-MY,STORE-C	UNIX RTR R1.5 and R6.4
REPT NONCORR PRTY	REPT-NONCORR,PRTY	UNIX RTR R1.5 only
REPT OFFLINE	REPT-OFFLINE	UNIX RTR R21.3, R21.11, R21.15 thru R21.33
REPT OFFLINE	REPT-OFFLINE	UNIX RTR R21.35 and later
REPT OFLBOOT	REPT-OFLBOOT	UNIX RTR R21.3, R21.11, R21.15 and later
REPT OLBCONFIG FAULT	REPT-OLBCONFIG	UNIX RTR R21.3, R21.11, R21.15 and later
REPT OUT OF RANGE MEM	REPT-OORMR	UNIX RTR R1.5 only
REPT OUT OF RANGE MEM OTHER	REPT-OORMR,OTHR	UNIX RTR R1.5 only
REPT OP PMCR	REPT-OP,PMCR-A	UNIX RTR R1.5 and R6.4
REPT OP PMCR	REPT-OP,PMCR-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT OP PMCR ERROR	REPT-OP,PMER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT OTHER STORE HARDWARE	REPT-OTHR,SHE	UNIX RTR R1.5 and R6.4
REPT OTHER STORE READ	REPT-OTHR,SRDPE	UNIX RTR R1.5 and R6.4
REPT OTHER STORE REFRESH	REPT-OTHR,SRFPE	UNIX RTR R1.5 and R6.4
REPT OTHER STORE TIME OUT	REPT-OTHR,STOE	UNIX RTR R1.5 only
REPT OUTPUT	REPT-OUTPUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PASSWORD	REPT-PASSWORD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PCPAUD	REPT-PCPAUD-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
REPT PCPAUD	REPT-PCPAUD-B	UNIX RTR R21.27 only
REPT PCPAUD	REPT-PCPAUD-C	UNIX RTR R21.29 and later
REPT PCPMD FAULT	REPT-PCPMD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PHASE	REPT-PHASE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PINV	REPT-PINV	UNIX RTR R1.5 only

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Message Name	Message ID	Generic
REPT PLDMON ERROR	REPT-PLDMON,ERR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PMDBCOPY	REPT-PMDBCOPY-A	UNIX RTR R1.5, R6.4, R21.11, R21.15 thru R21.17
REPT PMDBCOPY	REPT-PMDBCOPY-B	UNIX RTR R21.3, R21.19 and later
REPT PMGR ERROR	REPT-PMGR,ERR-A	UNIX RTR R1.5 only
REPT PMGR ERROR	REPT-PMGR,ERR-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT PMSLOT	REPT-PMSLOT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT POWER	REPT-POWER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PREPHASE	REPT-PREPHASE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PRIV INSTR VIOL	REPT-PRIV,INSTRCT	UNIX RTR R1.5 only
REPT PROTECTION VIOLATION	REPT-PROTECT,VLTN	UNIX RTR R1.5 only
REPT PARITY DIVERT	REPT-PRTY-DVRT	UNIX RTR R1.5 only
REPT PSM	REPT-PSM-A	UNIX RTR R1.5 and R6.4
REPT PSM	REPT-PSM-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT PWRFLTC	REPT-PWRFLTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY CU	REPT-RCVRY,CU	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY DUI	REPT-RCVRY,DUI	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY DUIC	REPT-RCVRY,DUIC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY HSD	REPT-RCVRY,HSD	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY HSDC	REPT-RCVRY,HSDC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY IOP	REPT-RCVRY,IOP	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY MT	REPT-RCVRY,MT	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY MTC	REPT-RCVRY,MTC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY MTTY	REPT-RCVRY,MTTY	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT RCVRY MTTYC	REPT-RCVRY,MTTYC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY ROP	REPT-RCVRY,ROP	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SCC	REPT-RCVRY,SCC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SCSDC	REPT-RCVRY,SCSDC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SDL	REPT-RCVRY,SDL	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SDLC	REPT-RCVRY,SDLC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY TTY	REPT-RCVRY,TTY	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY TTYC	REPT-RCVRY,TTYC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT REX UNABLE	REPT-REX	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT REX SUMMARY	REPT-REX,SUM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RMF	REPT-RMF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RMTGETTY	REPT-RMTGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ROP	REPT-ROP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RTS	REPT-RTS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SCC	REPT-SCC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
REPT SCSD	REPT-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SCSDA	REPT-SCSDA-A	UNIX RTR R1.5 and R6.4
REPT SCSDA	REPT-SCSDA-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT SCSDC	REPT-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT SDL	REPT-SDL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SDLC	REPT-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SDLRTC	REPT-SDLRTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SDLRTN	REPT-SDLRTN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SHLGETTY	REPT-SHLGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SIM	REPT-SIM	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT SIMCHK	REPT-SIMCHK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SIND	REPT-SIND	UNIX RTR R1.5 only
REPT SINV	REPT-SINV	UNIX RTR R1.5 only
REPT SIOF ERROR	REPT-SIOF,ERROR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SOP	REPT-SOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SPL SYNTAX ERROR	REPT-SPL,SYN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SYSTEM	REPT-SYSTEM	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT TIME	REPT-TIME	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT TLP ERROR	REPT-TLP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT 3/6 MAIN CHAN ADDR	REPT-TS,MCASE	UNIX RTR R1.5 only
REPT 3/6 MAIN CHAN IO RESP	REPT-TS,MCIORE	UNIX RTR R1.5 only
REPT TTY	REPT-TTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT TTYC	REPT-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ULARP	REPT-ULARP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT UNIX INIT	REPT-UNIX,INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT VIRTUAL ADDR	REPT-VIRTUAL,ADDR	UNIX RTR R1.5 only

Message Name	Message ID	Generic
RFT FDUMP	RFT-FDUMP	UNIX RTR R1.5 only
RMV CU	RMV-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV DCI	RMV-DCI	UNIX RTR R21.3, R21.15 and later
RMV DFC	RMV-DFC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV DUI	RMV-DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV DUIC	RMV-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV HSD	RMV-HSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV HSDC	RMV-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV IOP	RMV-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV MHD	RMV-MHD-A	UNIX RTR R6.4, R21.3, R21.17 and later
RMV MHD	RMV-MHD-B	UNIX RTR R21.11 and R21.15
RMV MT	RMV-MT-A	UNIX RTR R1.5 and R6.4
RMV MT	RMV-MT-B	UNIX RTR R21.3, R21.11, R21.15 and later
RMV MTC	RMV-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV MTTY	RMV-MTTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV MTTYC	RMV-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV ROP	RMV-ROP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SBUS	RMV-SBUS-A	UNIX RTR R6.4 only
RMV SBUS	RMV-SBUS-B	UNIX RTR R21.3, R1.11, R21.15 and later
RMV SCC	RMV-SCC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SCSDC	RMV-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SDL	RMV-SDL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SDLC	RMV-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
RMV TTY	RMV-TTY	UNIX RTR R1.5, R6.4, R21.3, and later
RMV TTYC	RMV-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST CU	RST-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST DCI	RST-DCI	UNIX RTR R21.3, R21.15 and later
RST DFC	RST-DFC-A	UNIX RTR R1.5 and R6.4
RST DFC	RST-DFC-B	UNIX RTR R21.3, R21.11, R21.15 and later
RST DUI	RST-DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST DUIC	RST-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST HSD	RST-HSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST HSDC	RST-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
RST IOP	RST-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
RST MHD	RST-MHD-A	UNIX RTR R1.5 and R6.4
RST MHD	RST-MHD-B	UNIX RTR R21.3, R21.11, R21.15 and later
RST MT	RST-MT-A	UNIX RTR R1.5 and R6.4
RST MT	RST-MT-B	UNIX RTR R21.3, R21.11, R21.15 and later
RST MTC	RST-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST MTTY	RST-MTTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST MTTYC	RST-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST ROP	RST-ROP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST SBUS	RST-SBUS-A	UNIX RTR R6.4 only
RST SBUS	RST-SBUS-B	UNIX RTR R21.3, R21.11, R21.15, and later
RST SCC	RST-SCC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST SCSDC	RST-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST SDL	RST-SDL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
RST SDLC	RST-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST TTY	RST-TTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST TTYC	RST-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
SET CLK	SET-CLK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
SET IODRV	SET-IODRV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
START OF	START-OF	UNIX RTR R21.11, R21.15 and later
STOP AUD	STOP-AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
STOP BKDISK	STOP-BKDISK-A	UNIX RTR R1.5, R6.4, R21.3 and R21.11
STOP BKDISK	STOP-BKDISK-B	UNIX RTR R21.15 and later
STOP DCI	STOP-DCI	UNIX RTR R21.3, R21.11, R21.15 and later
STOP DMQ	STOP-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP EXC ANY	STOP-EXC,ANY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP EXC USER	STOP-EXC,USER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP GEN	STOP-GEN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP OFLBOOT	STOP-OFLBOOT	UNIX RTR R21.3, R21.11, R21.15 and later
STP DMQ	STP-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STP GEN	STP-GEN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
SW CU	SW-CU-A	UNIX RTR R1.5 only
SW CU	SW-CU-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
SW OFLBOOT	SW-OFLBOOT	UNIX RTR R21.3, R21.11, R21.15 and later
SW PORTSW	SW-PORTSW	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TST SPL	TST-SPL	UNIX RTR R1.5 only
UPD APPLY	UPD-APPLY	UNIX RTR R1.5, R6.4 and R21.3
UPD AUTOCHK REPORT	UPD-AUTOCHK	UNIX RTR R21.11, R21.15 and later
UPD AUTOMATION	UPD-AUTOMATION	UNIX RTR R21.11, R21.15 and later
UPD BKOUT	UPD-BKOUT	UNIX RTR R1.5, R6.4 and R21.3
UPD BLDBOOT	UPD-BLDBOOT	UNIX RTR R1.5, R6.4, R21.3 R21.11, R21.15 and later
UPD CLR	UPD-CLR	UNIX RTR R1.5, R6.4 and R21.3
UPD COMMAND	UPD-COMMAND	UNIX RTR R21.11, R21.15 and later
UPD CSCANS	UPD-CSCANS	UNIX RTR R21.11, R21.15 and later
UPD CSCANS REPORT	UPD-CSCANS-REPT	UNIX RTR R21.11, R21.11, R21.15 and later
UPD DFC FLASH	UPD-DFC,FLASH	UNIX RTR R21.11, R21.15 and later
UPD DISPLAY	UPD-DISPLAY-A	UNIX RTR R1.5, R6.4 and R21.3
UPD DISPLAY	UPD-DISPLAY-B	UNIX RTR R21.11, R21.15 and later
UPD FLASH	UPD-FLASH	UNIX RTR R21.11, R21.15 and later
UPD FTRC	UPD-FTRC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN APPLPROC	UPD-G,APPLPROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN BACKOUT	UPD-G,BKOUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN COMMIT	UPD-G,COMMIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN CONTINUE	UPD-G,CONT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN ENTER	UPD-G,ENTER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN PROCEED	UPD-G,PROCD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
UPD GEN RESTORE	UPD-G,RESTR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
UPD ISG	UPD-ISG-A	UNIX RTR R1.5 and R6.4
UPD ISG	UPD-ISG-B	UNIX RTR R21.3, R21.11, R21.15 and later
UPD OMDB	UPD-OMDB-A	UNIX RTR R1.5, R6.4 and R21.3
UPD OMDB	UPD-OMDB-B	UNIX RTR R21.11, R21.15 and later
UPD OMIT	UPD-OMIT	UNIX RTR R1.5, R6.4 and R21.3
UPD PERM	UPD-PERM	UNIX RTR R1.5, R6.4 and R21.3
UPD PURGE	UPD-PURGE	UNIX RTR R1.5, R6.4 and R21.3
UPD RECLAIM	UPD-RECLAIM	UNIX RTR R1.5, R6.4 and R21.3
UPD REPT	UPD-REPT-A	UNIX RTR R1.5, R6.4 and R21.3
UPD REPT	UPD-REPT-B	UNIX RTR R21.11, R21.15 and later
UPD RESET	UPD-RESET	UNIX RTR R1.5, R6.4 and R21.3
UPD UPNM	UPD-UPNM	UNIX RTR R1.5, R6.4 and R21.3
UPD VERSION	UPD-VERSION	UNIX RTR R21.11, R21.15 and later
UPD VFY	UPD-VFY	UNIX RTR R1.5, R6.4 and R21.3
UPD VFYCON	UPD-VFYCON	UNIX RTR R21.11, R21.15 and later
VFY FILE	VFY-FILE-A	UNIX RTR R1.5 only
VFY FILE	VFY-FILE-B	UNIX RTR R6.4 only
VFY FILE	VFY-FILE-C	UNIX RTR R21.3, R21.11, R21.15 and later
VFY MHD	VFY-MHD-A	UNIX RTR R1.5 only
VFY MHD	VFY-MHD-B	UNIX RTR R6.4 only
VFY MHD	VFY-MHD-C	UNIX RTR R21.3, R21.11, R21.15 and later
VFY PAUTH	VFY-PAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
VFY PCGRP	VFY-PCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
VFY PROFL	VFY-PROFL	UNIX RTR R21.3, R21.11, R21.15 and later
VFY TAPE	VFY-TAPE-A	UNIX RTR R1.5, R6.4, R21.3 and R21.11
VFY TAPE	VFY-TAPE-B	UNIX RTR R21.15 and later

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Message Name	Message ID	Generic
VFY TAUTH	VFY-TAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
VFY TCGRP	VFY-TCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
WHEN COND	WHEN-COND	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
WHEN PID	WHEN-PID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
WHEN UID	WHEN-UID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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ID . . . . . ACTV-OMDB
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1]
```
ACTV OMDB COMPLETED
 OMDB SEGMENTS:
TOTAL          ACTIVE
 a       b
```

[2]
```
ACTV OMDB FAILED
```

[3]
```
ACTV OMDB ABORTED
UNABLE TO SEND REQUEST TO CSOP
```

2. REASON FOR OUTPUT

To report the completion of processing an `ACTV:OMDB` input message to refresh the active (incore) output message database (OMDB).

3. VARIABLE FIELD DEFINITIONS

a = Total number of segments that the OMDB requires.

b = Number of segments that are active (incore).

4. ACTION TO BE TAKEN

For Format 2, `REPT-CSOP` message(s) found in the receive-only printer (ROP) output preceding this message should give more information about the nature of the error. If they indicate that the file `/cft/spl/omdb` is not accessible, determine if the disk is available. If the disk is available, verify the status of the OMDB disk file by using the `OP:STATUS;LISTDIR` input message for `/cft/spl/omdb`. If neither of these actions determines a probable cause, there may be insufficient memory available to bring a fresh copy of the OMDB incore.

For Format 3, verify that the coordinator of spooler output processes craft output spooler (CSOP) is running.

5. ALARMS

None. This alarm is a manually-requested report.

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6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 1.
Format 3 has an OMDB key of 118.

Input Messages
```
ACTV:OMDB
APPLY:OMDB
OP:OMDB
OP:ST;LSTDIR
UPD:OMDB
```

Output Message
```
REPT-CSOP
```

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ID . . . . . ALW-AUD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `ALW AUD COMPLETED`

[2] `ALW AUD NOT STARTED`
`CONFLICT WITH CURRENT SYSTEM STATUS` *a* `| RETRY LATER` *b* `|`
`UNABLE TO IDENTIFY ERROR INPUT ERROR`

2. REASON FOR OUTPUT

To report the termination status of the `ALW:AUD` input message.

3. VARIABLE FIELD DEFINITIONS

a = Explanation of error. See Output Audit Appendix C, `AUD-APPC`.

b = Explanation of error. See Output Audit Appendix D, `AUD-APPD`.

NOTE: See Output Audit Appendixes A and B, `AUD-APPA` and `AUD-APPB`, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

In case of failure (Format 2), use the `OP:AUD` input message to determine the current system status.

5. ALARMS

None.

6. REFERENCES

Output Appendixes
- `AUD-APPA`
- `AUD-APPB`
- `AUD-APPC`
- `AUD-APPD`

Input Messages
- `ALW:AUD`
- `OP:AUD`

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Output Message
OP-AUD

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ID . . . . . ALW-CONFLOG
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `ALW CONFLOG COMPLETED`

[2] `ALW CONFLOG NOT STARTED`
`INVAILD ID FIELD`

[3] `ALW CONFLOG NOT STARTED`
`RETRY LATER`

2. REASON FOR OUTPUT

To report the termination status of the `ALW:CONFLOG` input message.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Messages
`ALW:CONFLOG`
`INH:CONFLOG`

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

ID . . . . . ALW-DMQ-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `ALW DMQ COMPLETED`

[2] `ALW DMQ SOURCE` *a* `IS NOT INHIBITED`

[3] `ALW DMQ ENABLED` *a*

2. REASON FOR OUTPUT

Format 1 indicates that an `ALW:DMQ` input message has completed.

Format 2 indicates that an `ALW:DMQ` input message was entered for a non-inhibited source.

Format 3 reports that a specific source of automatic maintenance requests is no longer inhibited. It is now allowed to send requests to the maintenance input request administrator (MIRA).

3. VARIABLE FIELD DEFINITIONS

a = Three-character name of the source currently allowed to make automatic maintenance requests. The computer source names are:

`REX` — routine exercises.
`ADP` — automatic diagnostic process.
`ALL` — allows all automatic maintenance requests by clearing the inhibited sources that were inhibited by `ALL`.

4. ACTION TO BE TAKEN

Use the `OP:DMQ` input message to determine which diagnostic sources are inhibited.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Formats 2 and 3 have an OMDB key of 67.

Input Messages
`ALW:DMQ`
`INH:DMQ`
`OP:DMQ`

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Output Messages
OP-DMQ
REPT-DMQ

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ID . . . . . ALW-DMQ-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `ALW DMQ COMPLETED`

[2] `ALW DMQ SOURCE` *a* `IS NOT INHIBITED`

[3] `ALW DMQ SOURCE` *a* `IS INHIBITED BY SOURCE ALL`

[4] `ALW DMQ ENABLED` *a*

2. REASON FOR OUTPUT

Format 1 indicates that an `ALW:DMQ` input message has completed.

Format 2 indicates that an `ALW:DMQ` input message was entered for a non-inhibited source.

Format 3 indicates that an `ALW:DMQ` input message was entered for a source inhibited by `ALL`. A source cannot be allowed if the source `ALL` is inhibited.

Format 4 reports that a specific source of automatic maintenance requests is no longer inhibited. It is now allowed to send requests to the maintenance input request administrator (MIRA).

3. VARIABLE FIELD DEFINITIONS

a = Three-character name of the source currently allowed to make automatic maintenance requests. The computer source names are:

`REX` — routine exercises.
`ADP` — automatic diagnostic process.
`ALL` — allows all automatic maintenance requests by clearing the inhibited sources that were inhibited by `ALL`.

4. ACTION TO BE TAKEN

Use the `OP:DMQ` input message to determine which diagnostic sources are inhibited.

5. ALARMS

None. This alarm is a manually-requested report.

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6. REFERENCES

OMDB Keys
Formats 2 and 3 have an OMDB key of 67.
Format 4 has an OMDB key of 66.

Input Messages
ALW:DMQ
INH:DMQ
OP:DMQ

Output Messages
OP-DMQ
REPT-DMQ

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ID . . . . . ALW-EAIINT
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `ALW EAIINT` *a* `COMPLETED`

[2] `ALW EAIINT` *a* `COMPLETED WITH` *c*

[3] `ALW EAIINT` *a* `ABORTED` *b*

2. REASON FOR OUTPUT

To indicate the result of a request to allow emergency action interface (EAI) error interrupts on a specified 3B21D computer control unit (CU), or on both 3B21D computer CUs.

NOTE: The 3B20D computer CUs do not have EAI error interrupts.

Format 1 indicates successful completion.

Format 2 indicates successful completion with a message port problem.

Format 3 indicates an error.

3. VARIABLE FIELD DEFINITIONS

a = One of the following: CU 0, CU 1, or CU 0 and CU 1.

b = One of the following error codes:

- `50` — message could not be sent to a driver or real time status (RTS) report
- `51` — equipment configuration data base (ECD) access function completed unsuccessfully
- `52` — error in message communication
- `53` — error internal to the inhibit administrator

c = One of the following port problems:

`AN INVALID SYSTEM PORT SPECIFIED`
`AN INVALID SYSTEM PORT SPECIFIED FOR AIM` (application integrity monitor)
`NO PROCESS ATTACHED TO THE SPECIFIED PORT`
`NO PROCESS ATTACHED TO THE AIM PORT`

4. ACTION TO BE TAKEN

For Format 1, no action is necessary.

For Format 2, seek technical assistance.

For Format 3, use the `OP:ERRCHK` input message to learn the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

5. ALARMS

None. This report is either a manually-requested report or an automatically-generated report for information only.

6. REFERENCES

OMDB Key(s)
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 658.
Format 3 has an OMDB key of 414.

Input Message(s)

```
ALW:EAIINT
ALW:ERRCHK
INH:EAIINT
INH:ERRCHK
OP:ERRCHK
```

Output Message(s)

```
ALW-ERRCHK
INH-EAIINT
INH-ERRCHK
OP-ERRCHK
```

ID . . . . . ALW-ERRCHK-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `ALW ERRCHK COMPLETED`

[2] `ALW ERRCHK ABORTED` *a*

[3] `ALW ERRCHK NOT STARTED`
`INVALID ID FIELD`

2. REASON FOR OUTPUT

To indicate the result of a request to allow all computer error sources.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes:

- `50` — A message could not be sent to a driver or real time status report (RTS).
- `51` — An equipment configuration data base (ECD) access function completed unsuccessfully.
- `52` — An error in message communication.
- `53` — An error internal to the inhibit administrator.
- `55` — An invalid system port was specified.
- `56` — No process is attached to the specified port.

4. ACTION TO BE TAKEN

If an error was reported, use the `OP:ERRCHK` input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 414.

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Input Messages

```
ALW:ERRCHK
INH:ERRCHK
OP:ERRCHK
```

Output Messages

```
INH-ERRCHK
OP-ERRCHK
```

ID . . . . . ALW-ERRCHK-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `ALW ERRCHK COMPLETED`

[2] `ALW ERRCHK COMPLETED WITH` *b*

[3] `ALW ERRCHK ABORTED` *a*

[4] `ALW ERRCHK NOT STARTED`
`INVALID ID FIELD`

2. REASON FOR OUTPUT

To indicate the result of a request to allow all computer error sources.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes:

- `50` — A message could not be sent to a driver or real time status report (RTS).
- `51` — An equipment configuration data base (ECD) access function completed unsuccessfully.
- `52` — An error in message communication.
- `53` — An error internal to the inhibit administrator.

b = This is one of the following port problems:

- — Invalid system port specified.
- — Invalid system port specified for analog interface module (AIM).
- — No process attached to the specified port.
- — No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the `OP:ERRCHK` input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

If the process completes with a port problem, the craft should seek technical assistance.

5. ALARMS

None.

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6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 658.
Format 3 has an OMDB key of 414.

Input Messages
`ALW:ERRCHK`
`INH:ERRCHK`
`OP:ERRCHK`

Output Messages
`INH-ERRCHK`
`OP-ERRCHK`

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ID . . . . . ALW-ERRCHK-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `ALW ERRCHK COMPLETED`

[2] `ALW ERRCHK COMPLETED WITH` *b*

[3] `ALW ERRCHK ABORTED` *a*

[4] `ALW ERRCHK NOT STARTED`
`INVALID ID FIELD`

2. REASON FOR OUTPUT

To indicate the result of a request to allow all computer error sources.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes:

- `50` — message could not be sent to a driver or real time status report (RTS)
- `51` — equipment configuration data base (ECD) access function completed unsuccessfully
- `52` — error in message communication
- `53` — error internal to the inhibit administrator

b = One of the following port problems:

- — Invalid system port specified.
- — Invalid system port specified for analog interface module (AIM).
- — No process attached to the specified port.
- — No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the `OP:ERRCHK` input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

If the process completes with a port problem, seek technical assistance.

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5. ALARMS

For format 1, none. This report is a manually-requested report.

For format 2 and 3, none. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 658.
Format 3 has an OMDB key of 414.

Input Messages
`ALW:ERRCHK`
`INH:ERRCHK`
`OP:ERRCHK`

Output Messages
`INH-ERRCHK`
`OP-ERRCHK`

ID . . . . . ALW-ERRINT-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `ALW ERRINT COMPLETED`

[2] `ALW ERRINT ABORTED` *a*

[3]
```
ALW ERRINT NOT STARTED
INVALID ID FIELD - INPUT ERROR
```

[4]
```
ALW ERRINT NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS - UNEQUIPPED UNIT
```

2. REASON FOR OUTPUT

To indicate the result of a request to allow error interrupts on a particular computer unit or complex, or on all computer hardware units.

Format 1 indicates successful completion.

Format 2 indicates an error.

Format 3 indicates an error in the identification field of the input. Possibly, the unit name and number specified cannot be found in the data base.

Format 4 indicates unit name and number specified was found in the data base, but is unequipped.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes:

- `50` — a message could not be sent to a driver or real time status (RTS) report
- `51` — an equipment configuration data base (ECD) access function completed unsuccessfully
- `52` — an error in message communication
- `53` — an error internal to the inhibit administrator
- `55` — an invalid system port was specified
- `56` — no process is attached to the specified port

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4. ACTION TO BE TAKEN

For Formats 1, 3, and 4, no action is necessary.

For Format 2, use the `OP:ERRCHK` input message to learn the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

5. ALARMS

None. This report is either a manually-requested report or an automatically-generated report for information only.

6. REFERENCES

OMDB Key(s)
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 414.

Input Message(s)
`ALW:ERRINT`
`INH:ERRINT`
`OP:ERRCHK`

Output Message(s)
`INH-ERRINT`
`OP-ERRCHK`

ID . . . . . ALW-ERRINT-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has five formats.

[1] `ALW ERRINT COMPLETED`

[2] `ALW ERRINT COMPLETED WITH` *b*

[3] `ALW ERRINT ABORTED` *a*

[4]
```
ALW ERRINT NOT STARTED
INVALID ID FIELD - INPUT ERROR
```

[5]
```
ALW ERRINT NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS - UNEQUIPPED UNIT
```

2. REASON FOR OUTPUT

To indicate the result of a request to allow error interrupts on a particular hardware unit or complex, or on all hardware units.

Format 1 indicates successful completion.

Format 2 indicates successful completion with a message port problem.

Format 3 indicates an error.

Format 4 indicates an error in the identification field of the input. Possibly, the unit name and number specified cannot be found in the data base.

Format 5 indicates unit name and number specified was found in the data base, but is unequipped.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes:

- `50` — a message could not be sent to a driver or real time status (RTS) report
- `51` — an equipment configuration data base (ECD) access function completed unsuccessfully
- `52` — an error in message communication
- `53` — an error internal to the inhibit administrator

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b = One of the following port problems:

`AN INVALID SYSTEM PORT SPECIFIED`

`AN INVALID SYSTEM PORT SPECIFIED FOR AIM` (application integrity monitor)

`NO PROCESS ATTACHED TO THE SPECIFIED PORT`

`NO PROCESS ATTACHED TO THE AIM PORT`

4. ACTION TO BE TAKEN

For Formats 1, 4, and 5, no action is necessary.

For Format 2, seek technical assistance.

For Format 3, use the `OP:ERRCHK` input message to learn the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

5. ALARMS

None. This report is either a manually-requested report or an automatically-generated report for information only.

6. REFERENCES

OMDB Key(s)
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 658.
Format 3 has an OMDB key of 414.

Input Message(s)
`ALW:ERRCHK`
`INH:ERRCHK`
`OP:ERRCHK`

Output Message(s)
`INH-ERRCHK`
`OP-ERRCHK`

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ID . . . . . ALW-ERRSRC-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `ALW ERRSRC COMPLETED`

[2] `ALW ERRSRC ABORTED` *a*

[3] `ALW ERRSRC NOT STARTED`
`INVALID ID FIELD`

2. REASON FOR OUTPUT

To indicate the result of a request to allow the processing of errors under a computer control unit (CU) pseudo-node.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes:

- `50` — A message could not be sent to a driver or real time status report (RTS).
- `51` — An equipment configuration data base (ECD) access function completed unsuccessfully.
- `52` — An error in message communication.
- `53` — An error internal to the inhibit administrator.
- `55` — An invalid system port was specified.
- `56` — No process is attached to the specified port.

4. ACTION TO BE TAKEN

If an error was reported, use the `OP:ERRCHK` input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 414.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
ALW:ERRSRC
INH:ERRSRC
OP:ERRCHK
```

Output Messages

```
INH-ERRSRC
OP-ERRCHK
```

ID . . . . . ALW-ERRSRC-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `ALW ERRSRC COMPLETED`

[2] `ALW ERRSRC COMPLETED WITH` *b*

[3] `ALW ERRSRC ABORTED` *a*

[4] `ALW ERRSRC NOT STARTED`
`INVALID ID FIELD`

2. REASON FOR OUTPUT

To indicate the result of a request to allow the processing of errors under a computer control unit (CU) pseudo-node.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes:

- `50` — A message could not be sent to a driver or real time status report (RTS).
- `51` — An equipment configuration data base (ECD) access function completed unsuccessfully.
- `52` — An error in message communication.
- `53` — An error internal to the inhibit administrator.

b = This is one of the following port problems:

- — Invalid system port specified.
- — Invalid system port specified for analog interface module (AIM).
- — No process attached to the specified port.
- — No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the `OP:ERRCHK` input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

If the process completes with a port problem, the craft should seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 658.
Format 3 has an OMDB key of 414.

Input Messages
`ALW:ERRCHK`
`INH:ERRCHK`
`OP:ERRCHK`

Output Messages
`INH-ERRCHK`
`OP-ERRCHK`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . ALW-F,ACCESS
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `ALW FILESYS ACCESS COMPLETED`

[2] `ALW FILESYS ACCESS STOPPED`
a

2. REASON FOR OUTPUT

To report the result of an `ALW:FILESYS;ACCESS` input message to change the mode of a file.

3. VARIABLE FIELD DEFINITIONS

a = The description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success, and no action is necessary.

Format 2 indicates the command has failed. The explanatory text will indicate the error encountered. Refer to the *Input Message Manual* for the correct format and reenter the message, or check the status of the file using the `OP:STATUS;LISTDIR` input message.

Seek technical assistance if any other error message is printed.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 282.
Format 2 has an OMDB key of 288.

Input Messages
`ALW:F;ACCESS`
`ALW:F;OWNER`
`OP:ST;LSTDIR`

Output Messages
```
OP-ST,FILESYS
OP-ST,LSTDIR
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

ID . . . . . ALW-F,MOUNT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `ALW FILESYS MOUNT COMPLETED`

[2] `ALW FILESYS MOUNT STOPPED`
a

2. REASON FOR OUTPUT

To report the result of executing an `ALW:FILESYS;MOUNT` input message to mount a file system.

Format 1 is printed when the input message has been completed.

Format 2 is printed when the execution has been stopped.

3. VARIABLE FIELD DEFINITIONS

a = Description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success, and no action is necessary.

Format 2 indicates the command has failed, and explanatory text will indicate the error encountered.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 282.
Format 2 has an OMDB key of 288.

Input Messages
`ALW:F;MOUNT`
`INH:F;UMOUNT`
`OP:ST;FILESYS`
`OP:ST;LSTDIR`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
OP-ST,FILESYS
OP-ST,LSTDIR
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

ID . . . . . ALW-F,OWNER
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `ALW FILESYS OWNER COMPLETED`

[2] `ALW FILESYS OWNER STOPPED`
a

2. REASON FOR OUTPUT

To report the result of an `ALW:FILESYS;OWNER` input message to change the owner and group of a file.

3. VARIABLE FIELD DEFINITIONS

a = The description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success, and no action is necessary.

Format 2 indicates the command failed. The explanatory text will indicate the error encountered. Refer to the *Input Message Manual* for the correct format and reenter the message, or check the status of the file using the `OP:STATUS;LISTDIR` input message if the message indicates that the file or directory is missing.

Seek technical assistance if any other error message is printed.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 282.
Format 2 has an OMDB key of 288.

Input Messages
`ALW:F;ACCESS`
`ALW:F;OWNER`
`OP:ST;LSTDIR`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message
`OP-ST,LSTDIR`

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

ID . . . . . ALW-HDWCHK-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `ALW HDWCHK COMPLETED`

[2] `ALW HDWCHK ABORTED` *a*

[3] `ALW HDWCHK NOT STARTED`
`INVALID ID FIELD`

2. REASON FOR OUTPUT

To indicate the result of a request to allow computer hardware checks.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes:

- `50` — A message could not be sent to a driver or real time status report (RTS).
- `51` — An equipment configuration data base (ECD) access function completed unsuccessfully.
- `52` — An error in message communication.
- `53` — An error internal to the inhibit administrator.
- `55` — An invalid system port was specified.
- `56` — No process is attached to the specified port.

4. ACTION TO BE TAKEN

If an error was reported, use the `OP:ERRCHK` input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 414.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
ALW:HDWCHK
INH:HDWCHK
OP:ERRCHK
```

Output Messages

```
INH-HDWCHK
OP-ERRCHK
```

ID . . . . . ALW-HDWCHK-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `ALW HDWCHK COMPLETED`

[2] `ALW HDWCHK COMPLETED WITH` *b*

[3] `ALW HDWCHK ABORTED` *a*

[4] `ALW HDWCHK NOT STARTED`
`INVALID ID FIELD`

2. REASON FOR OUTPUT

To indicate the result of a request to allow computer hardware checks.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes:

- `50` — A message could not be sent to a driver or real time status report (RTS).
- `51` — An equipment configuration data base (ECD) access function completed unsuccessfully.
- `52` — An error in message communication.
- `53` — An error internal to the inhibit administrator.

b = This is one of the following port problems:

- — Invalid system port specified.
- — Invalid system port specified for analog interface module (AIM).
- — No process attached to the specified port.
- — No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the `OP:ERRCHK` input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

If the process completes with a port problem, the craft should seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 658.
Format 3 has an OMDB key of 414.

Input Messages
`ALW:ERRCHK`
`INH:ERRCHK`
`OP:ERRCHK`

Output Messages
`INH-ERRCHK`
`OP-ERRCHK`

ID . . . . . ALW-REX
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `ALW REX COMPLETED`

[2] `ALW REX NOT STARTED`
`{CONFLICT WITH CURRENT SYSTEM STATUS`
`|RETRY LATER }`

2. REASON FOR OUTPUT

To report the termination status of the `ALW:REX` input message.

3. ACTION TO BE TAKEN

For Format 1, no action is needed.

For Format 2, `CONFLICT WITH CURRENT SYSTEM STATUS` indicates that temporary routine exercise (REX) inhibits are not available for the unit specified, or all the units specified due to active permanent REX inhibit(s). Use the `OP:REXINH` input message with the `PERM` option to determine the current permanent `REX` inhibits.

`RETRY LATER` indicates that the database manager or a database record could not be opened; try again at a later time. If this persists, seek technical assistance.

4. ALARMS

None.

5. REFERENCES

Input Messages
`ALW:REX`
`OP:REXINH`

Output Message
`OP-REXINH`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . ALW-SCSD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `ALW SCSD UNIT` *a* `PT` *b*[*bbbbbbb*] *f*

[2] `ALW SCSD GRPN` *c* `DUPID` *d* `PT` *e*[*eeeee*] *f*

[3]
```
ALW SCSD NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS
```

2. REASON FOR OUTPUT

To indicate whether a scan point has been enabled as a result of executing an `ALW:SCSD` input message. This allows a scan point transition to be reported.

Format 1 is used when a scan point is identified by physical location.

Format 2 is used when a scan point is identified by logical address.

Format 3 is used when the SCSD administration process is not active. No communication with scanner and signal distributor (SCSD) points is possible.

3. VARIABLE FIELD DEFINITIONS

a = Member number of SCSD unit.

b = Physical scan point number on an SCSD (`0-47`).

c = Name of the logical group.

d = Duplex group ID (`0` or `1`).

e = Number of a point within a logical group.

SEE PROPRIETARY NOTICE ON COVER PAGE

f = Termination status:

`FAILED` — Action could not be completed by SCSD Administrator.

Possible reasons for failure are:

— SCSD unit number is invalid.

— Point number is invalid for the logical group.

— Logical group name is invalid and either the SCSD unit is out-of-service (OOS) or is in an inactive state to the SCSD Administrator.

`COMPLETED` — Action completed.

4. ACTION TO BE TAKEN

Issue the `OP:OOS` input message to determine if the SCSD unit is listed as out-of-service. Otherwise, enter recent change and verify (RC/V) to verify input message arguments.

If logical addressing is used, check that the logical group name exists and/or the point number is contained in the logical group. If physical addressing is used, verify that the SCSD unit is equipped.

If the above results are negative, seek technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 229.

Input Messages
`ALW:SCSD`
`OP:OOS`

Practice 254-341-110 *DMERT Kernel and Basic Services Software Subsystem Description 3B20D Processor*

ID . . . . . ALW-SFTCHK-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `ALW SFTCHK COMPLETED`

[2] `ALW SFTCHK ABORTED` *a*

[3] `ALW SFTCHK NOT STARTED`
`INVALID ID FIELD`

2. REASON FOR OUTPUT

To indicate the result of a request to allow computer software checks.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes:

- `50` — A message could not be sent to a driver or real time status report (RTS).
- `51` — An equipment configuration data base (ECD) access function completed unsuccessfully.
- `52` — An error in message communication.
- `53` — An error internal to the inhibit administrator.
- `55` — An invalid system port was specified.
- `56` — No process is attached to the specified port.

4. ACTION TO BE TAKEN

If an error was reported, use the `OP:ERRCHK` input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 414.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
ALW:SFTCHK
INH:SFTCHK
OP:ERRCHK
```

Output Messages

```
INH-SFTCHK
OP-ERRCHK
```

ID . . . . . ALW-SFTCHK-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `ALW SFTCHK COMPLETED`

[2] `ALW SFTCHK COMPLETED WITH` *b*

[3] `ALW SFTCHK ABORTED` *a*

[4] `ALW SFTCHK NOT STARTED`
`INVALID ID FIELD`

2. REASON FOR OUTPUT

To indicate the result of a request to allow computer software checks.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes:

- `50` — A message could not be sent to a driver or real time status report (RTS).
- `51` — An equipment configuration data base (ECD) access function completed unsuccessfully.
- `52` — An error in message communication.
- `53` — An error internal to the inhibit administrator.

b = This is one of the following port problems:

- — Invalid system port specified.
- — Invalid system port specified for AIM.
- — No process attached to the specified port.
- — No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the `OP:ERRCHK` input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

If the process completes with a port problem, the craft should seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 658.
Format 3 has an OMDB key of 414.

Input Messages
`ALW:ERRCHK`
`INH:ERRCHK`
`OP:ERRCHK`

Output Messages
`INH-ERRCHK`
`OP-ERRCHK`

ID . . . . . ALW-UMEM
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`ALW UMEM` *a* `WAS` *b* `NOW` *c* *#d*

2. REASON FOR OUTPUT

To report the disposition of an `ALW:UMEM` input message.

3. VARIABLE FIELD DEFINITIONS

a = Status of the operation:

- `COMPLETED` — The trace has begun monitoring the flow of execution.
- `NOT STARTED` — The operation was ignored because data loss might have resulted.
- `STOPPED UCERR` — The operation could not be completed because the utility circuit either does not respond or does not match the circuit present when the trace was defined.

b = The state of the trace before the operation was attempted:

- `DUMPED` — The trace was not running and its data had already been dumped.
- `NEW` — The trace was not running and did not have data.
- `RUNNING` — The trace was collecting data.
- `STOPPED` — The trace was not running and did have data.
- `UNDEF` — No trace was defined.

c = The state of the trace after the operation was attempted.

- `RUNNING` — The trace is collecting data.
- `STOPPED` — The trace is stopped and does contain data.
- `UNDEF` — No trace is defined.

d = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If *a* is `NOT STARTED`, the trace must be in the `NEW` or `DUMPED` state in order to be started. Use the `INH:UMEM` and/or the `OP:UMEM` input messages before reissuing the `ALW:UMEM` input message.

If *a* is `STOPPED UCERR`, check the utility circuit hardware. After it is fixed, use the `INIT:UC` input message to reinitialize the circuit.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
This message has an OMDB key of 496.

Input Messages
```
ALW:UMEM
INH:UMEM
INIT:UC
OP:UMEM
OP:UTIL
```

Output Message
```
OP-UTIL
```

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . ALW-UTIL
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`ALW UTIL` *a #b*

2. REASON FOR OUTPUT

To report the disposition of an `ALW:UTIL` input message.

3. VARIABLE FIELD DEFINITIONS

a = Termination status:

`COMPLETED` — The actions associated with any breakpoint will be executed when the breakpoint conditions occur.

`STOPPED UCERR` — The operation was completed successfully for all software breakpoints, but the utility circuit does not respond or does not match the circuit present when the hardware breakpoints were defined.

b = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If *a* is `STOPPED UCERR`, check the utility circuit hardware. After it is fixed, use the `INIT:UC` input message to reinitialize the circuit.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
This message has an OMDB key of 494.

Input Messages
`ALW:UTIL`
`INH:UTIL`
`INH:UTILFLAG`
`INIT:UC`
`OP:UTIL`

Output Message
`OP-UTIL`

SEE PROPRIETARY NOTICE ON COVER PAGE

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . ALW-UTILFLAG
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`ALW UTILFLAG` *a b #c*

2. REASON FOR OUTPUT

To report the disposition of an `ALW:UTILFLAG` input message.

3. VARIABLE FIELD DEFINITIONS

a = Numeric identifier (one or more decimal digits) for the breakpoint that was enabled.

b = Termination status:

`COMPLETED` — The associated actions will be executed when the breakpoint conditions occur.

`STOPPED UCERR` — The operations could not be performed because the utility circuit either does not respond or does not match the circuit present when the breakpoint was defined.

c = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If *b* is `STOPPED UCERR`, check the utility circuit hardware. After it is fixed, use the `INIT:UC` input message to reinitialize the circuit.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
This message has an OMDB key of 494.

Input Messages
`INH:UTIL`
`INH:UTILFLAG`
`INIT:UC`
`OP:UTIL`

Output Message
`OP-UTIL`

SEE PROPRIETARY NOTICE ON COVER PAGE

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . ANALY-TLPFILE-A
GENERIC . . . . . UNIX RTR R1.5, R6.4 and R21.3
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1]
```
ANALY TLPFILE a SUMMARY DATA MSG STARTED
TLP: a PH=b K1=0Xc K2=0Xd FFK=e
  . . . . .
  . . . . .
  . . . . .
TLPFILE COMPLETED
```

[2]
```
ANALY TLPFILE  a   MSG IP
  TLPFILE # f
```

[3]
```
ANALY TLPFILE a SUSPECTED FAULTY EQUIPMENT  MSG COMPL
UNIT MV VALUE = g
CODE   EQL   FS   SYM   SD   UNIT   WT   NOTE
[h] [i] [j] [k] [l] [m]  n  [o]
```

[4]
```
ANALY TLPFILE a SUSPECTED FAULTY EQUIPMENT  MSG COMPL
CODE   EQL   FS   SYM   SD   UNIT   WT   NOTE
[h] [i] [j] [k] [l] [m]  n  [o]
```

2. REASON FOR OUTPUT

To print trouble location information for a failing diagnostic.

Format 1 is always printed after diagnostic failures have occurred. This message summarizes the failing trouble locating procedure (TLP) key information for each failing phase.

Formats 2 - 4 are printed only when diagnostic failures have occurred and the TLP option was specified in the input command. The information in these messages is used to repair the failing unit.

See Practices 254-301-100, or 254-302-100 for further details. Also see *System Maintenance Manual*, 254-303-106.

3. VARIABLE FIELD DEFINITIONS

a = Unit and side that failed diagnostic (for example, `CU 0`).

b = Failing diagnostic phase number.

c = Failing TLP keys - word 1. One bit set for each failing TLP key, `0-31`.

SEE PROPRIETARY NOTICE ON COVER PAGE

d = Failing TLP keys - word 2. One bit set for each failing TLP key, 32-63.

e = First failing TLP key number.

f = Unique decimal number identifying the TLP process.

g = Model version (mv) of the unit being diagnosed.

h = Equipment code.

i = Equipment location.

j = Functional schematic number for the equipment.

k = Functional schematic symbol number for the equipment.

l = Schematic diagram number for the unit.

m = Unit(s) containing the equipment when not the same as the unit being diagnosed. DO NOT REMOVE POWER OR EQUIPMENT FROM AN ACTIVE OR IN-SERVICE UNIT. ONL in the unit column means on-line or active unit. PU in the unit column means peripheral unit such as disk file controller (DFC) or input output processor (IOP).

n = Weight on a scale from 1 to 10 with the equipment most likely to be faulty having the highest number.

o = Note number. If note is nonzero, see Table 1. Note 0 is not used.

Table 1

Note Number	Definition
CC NOTE 01	Do not remove power or equipment from an active or in-service unit.
CC NOTE 02	Cable to the maintenance channel of the CU.
CC NOTE 03	CU could be held stopped by micro level test set (MLTS) or bus display unit (BDU).
CC NOTE 05	MLTS, TN16, or UN16 if equipped.
CC NOTE 06	CU could be powered down.
CC NOTE 07	Power switch board or one of the power converters may be bad. If ALARM is lighted on power switch board, power cycle CU. If light remains on in one of the power converters, that converter may be bad. If lights go out on all converters and CU fails to power up, power switch board may be bad. (Model 1 3B20 CU power switch circuitry includes EAI board, TN11.)

SEE PROPRIETARY NOTICE ON COVER PAGE

Table 1 *(continued)*

Note Number	Definition
CC NOTE 10	Board is in input output process (IOP) 0.
CC NOTE 11	Board is in IOP 1.
CC NOTE 50	Channel board in the channel 0 position.
CC NOTE 51	Channel board in the channel 1 position.
CC NOTE 52	Channel board in the channel 2 position.
CC NOTE 53	Channel board in the channel 3 position.
CC NOTE 54	Channel board in the channel 4 position.
CC NOTE 55	Channel board in the channel 5 position.
CC NOTE 56	Channel board in the channel 6 position.
CC NOTE 57	Board in the DMA 0 position (Model 1 UN36).
CC NOTE 58	Board in the DMA 1 position (Model 1 UN36).
CC NOTE 59	A channel address lead is being held active by CU, channel, or DMA.
CC NOTE 60	A channel or DMA bus may be responding and/or acknowledging falsely.
CC NOTE 61	A channel or DMA is holding channel error (ER bit 16) active (low).
CH NOTE 01	Suspect any channel (CH) or direct memory access (DMA).
CH NOTE 02	Unterminated or defective cable on port under test.
CSU NOTE 01	Verify hardware for the kernel stack in interrupt stack cache memory feature corresponds with the cache store unit (CSU's) unit control block (UCB) hardware version (HV) field. A 1 in bit 0 of this field indicates the feature is present. The hardware for this feature is a UN45C store address translation (SAT), with pins 149 and 047 wired together on the SAT backplane to enable the feature. Discrepancy between HV value and hardware should be corrected.

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Table 1 *(continued)*

Note Number	Definition
DMA NOTE 01	Suspect any channel or DMA.
DUIC NOTE 01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
DUIC NOTE 02	Replacement equipment must have same microcode (MC) number.
DCI NOTE 01	The dual serial channel/computer interconnect (DCI) could be powered down. This board is located in the attached processor.
DCI NOTE 02	The attached processor or its software may be the cause of this phase failing.
DFC NOTE 01	The disk file controller (or) disk file control frame (DFC) could be powered down.
DFC NOTE 02	Do not remove power or equipment from an active or in-service unit.
IOP NOTE 01	The input output processor (IOP) could be powered down.
IOP NOTE 02	Do not remove power or equipment from an active or in-service unit.
MASC NOTE 01	Do not remove power or equipment from an active or in-service unit.
MASC NOTE 09	Array identified by DGN CU_ MASC_ PH_ MEMORY FAILURE RESULTS output message.
MASC NOTE 10	Other units on the store bus: CC, other MASC in CU under test (in CUs with two UN39-UN40 MASCs), DMA(s), CSU (if equipped), SAT.
MASC NOTE 12	Any array in Main Store Controller (MASC).
MASC NOTE 13	Other MASC (in CUs with 2 UN39-UN40 MASCs) may have error(s) active in CC ER.
MHD NOTE 01	Part of the DFC, the DFC must be removed from service and powered down before this equipment can be replaced.

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Table 1 *(continued)*

Note Number	Definition
MHD NOTE 09	Refer to the Maintenance Instruction Manual for KS-21995,L2 and KS-22707,L2 Memory available from Century Data System, part number 76261-3xx.
MHD NOTE 10	These circuit cards are located in the logic card cage of the KS-22707,L2 Memory unit. Also refer to MHD NOTE 09.
MHD NOTE 11	The Power Amplifier, VP58 is located behind the logic card cage. Also refer to MHD NOTE 09.
MHD NOTE 12	Codes for all circuit cards in the KS-22707,L1 Memory are a four-character string of alpha-numeric or alpha characters. The first character in the string determines the revision level and the last three characters determine the circuit card code. Identification of the circuit card, therefore, is based on the last three characters.
MHD NOTE 13	Read MHD NOTE 12 then proceed. These circuit cards are located in the logic chassis. Refer to Practice 254-302-210, 300 Megabyte Moving Head Disk Drives, General Description, 3B20D Model 2 Processor.
MHD NOTE 14	Read MHD NOTE 12 then proceed. These circuit cards are located on the deck plate of the memory unit. Refer to Maintenance Instruction Manual for KS-22702,L1 memory.
MHD NOTE 16	MHD could be spun down.
MHD NOTE 17	MHD could be powered down. Check power inverter for alarm or no power. Check MHD power cord, power switch, and power indicator. On KS-22875 340MB MHD, check the diagnostic mode switch behind the front panel to ensure it is not in the diagnostic mode and the diagnostic mode indicator light is extinguished.
MHD NOTE 18	Incorrect ID setting could be the cause of this failure.
MT NOTE 18	Incorrect ID setting could be the cause of this failure.
MTC NOTE 01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
MTC NOTE 02	The indicated faulty equipment is in the transport.

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Table 1 *(continued)*

Note Number	Definition
MTTYC NOTE 01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
SCSDC NOTE 01	Part of the IOP controller; the IOP must be removed from service and powered down before this equipment can be replaced.
SDLC NOTE 01	Part of the IOP controller; the IOP must be removed from service and powered down before this equipment can be replaced.
TTYC NOTE 01	Part of the IOP controller; the IOP must be removed from service and powered down before this equipment can be replaced.
UC NOTE 01	Field test set (FTS) may have control of the utility circuit (UC).

4. ACTION TO BE TAKEN

Format 1 is failing TLP key summary information. If the failing diagnostic did not have the TLP option specified, request the diagnostic again with the TLP option. The failing TLP key summary information can be used to monitor changes in failing TLP keys. No actions based on the contents of this message are required.

Format 2 provides the ID of the TLP process which is running. No actions based on the contents of this message are required.

Formats 3 and 4 are used to repair the faulty unit using the suspected faulty equipment list. The most likely equipment is at the top of the list.

If the NOTE column *o* has non-zero entries, first read the identified TLP notes for the failing unit from Table 1. TLP notes may contain information regarding the cause of the trouble. Check for any specific trouble identified by the TLP notes. In some cases, the trouble can be resolved without replacing equipment.

If the UNIT column *m* has non-blank entries, the suspected faulty equipment is not in the unit that failed diagnostics. Defer replacing equipment in other units until all suspected equipment in the failing unit has been tried. It may be necessary to reconfigure the system to allow the other unit(s) to be removed from service. It will be necessary to remove from service and power down the other unit(s) before replacing equipment in the other unit(s).

Replace the equipment at the top of the list with a spare, and retest the unit with the diagnostics. If the unit still fails, restore the original equipment to the unit and replace the next equipment on the list with a spare. Continue until faulty equipment found or list exhausted.

When faulty equipment is found, verify it causes the diagnostic failure by restoring it to the unit and rerunning diagnostics. If the diagnostics DO NOT fail as before, suspect the faulty equipment is intermittent or temperature sensitive. Occasionally, removing and

restoring power to the unit or reseating equipment clears the trouble. Note the equipment involved in clearing the trouble. If the diagnostic failure returns and the same equipment is involved in clearing the trouble, replace the equipment.

If asterisks (*) are printed in the equipment location field *i*, TLP cannot directly determine the location of the equipment from the failing diagnostic *a*. If the `UNIT` column *m* is blank, all equipment of the code identified in *h* are implicated in the failing unit. If the `UNIT` column *m* identifies another unit (or units), all equipment of the code identified in *h* are implicated in the unit (or units) identified by *m*. In some cases, further resolution is possible; see below.

If *h* = `UN09`, TLP may not be able to directly determine the channel based on the unit under test. Channel diagnostics should be run to more accurately determine the faulty equipment. For example, if the DMA 0 diagnostic failed and TLP implicated the UN09, run DMA 0 channel diagnostics (CH 11-14).

If *h* = `UN19`, this indicates that TLP cannot directly determine the channel based on the unit under test. Channel diagnostics (CH 0-9) should be run to more accurately determine the faulty equipment.

If *h* = `TN69` or `TN70`, the TN69 or TN70 equipment in the peripheral device being used as a helper unit is being implicated. See the diagnostic listing for further information on the peripheral device involved with the phase which failed. Table 2 translates some of the channel diagnostic phases to the subchannel being tested.

Table 2

Failing CH Phase	Subchannel Under Test
8 or 24	0
9 or 25	1
10 or 26	2
11 or 27	3
12 or 28	4
13 or 29	5
14 or 30	6
15 or 31	7
16 or 32	8
17 or 33	9
18 or 34	10
19 or 35	11
20 or 36	12
21 or 37	13
22 or 38	14
23 or 39	15

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If *h* = TN14, TN28 or TN56, or TN2012, this indicates TLP may not be able to determine the failing mainstore array (MASA) based on the unit under test. Some MASC diagnostic phases have a histogram output message that identifies the failing MASA. If the MASC diagnostic was not run, the MASC diagnostic should be run to more accurately determine the faulty equipment.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 16.
Format 2 has OMDB keys of 17 and 18.

Input Messages

```
DGN:CU
DGN:DCI
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:MHD
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
EX:CU
EX:DCI
EX:DFC
EX:DUIC
EX:HSDC
EX:IOP
EX:LDPARM
EX:LOOP
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE
EX:SCSDC
EX:SDLC
EX:STEP
EX:STOP
EX:TTYC
RST:CU
RST:DCI
RST:DFC
RST:DUI
RST:DUIC
RST:HSD
```

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RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC

Output Messages

DGN-AUDIT
DGN-CU
DGN-CU,MASC
DGN-DCI
DGN-DFC
DGN-DUIC
DGN-HSDC
DGN-IOP
DGN-MHD
DGN-MTC
DGN-MTTYC
DGN-SCSDC
DGN-SDLC
DGN-TTYC
EX-CU
EX-DCI
EX-DFC
EX-DUIC
EX-HSDC
EX-IOP
EX-LDPARM
EX-LOOP
EX-MHD
EX-MTC
EX-MTTYC
EX-PAUSE
EX-SCSDC
EX-SDLC
EX-STEP
EX-TTYC
RST-CU
RST-DCI
RST-DFC

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```
RST-DUI
RST-DUIC
RST-HSD
RST-HSDC
RST-IOP
RST-MHD
RST-MT
RST-MTC
RST-MTTY
RST-MTTYC
RST-ROP
RST-SBUS
RST-SCC
RST-SCSDC
RST-SDL
RST-SDLC
RST-TTY
RST-TTYC
```

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Practice 254-302-210 *300 Megabyte Moving Head Disk Drives General Description 3B20D Model 2 Processor*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . ANALY-TLPFILE-B
GENERIC . . . . . UNIX RTR R21.11, R21.15, R21.17 and 21.31
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1]
```
ANALY TLPFILE a SUMMARY DATA MSG STARTED
TLP: a PH=b K1=0Xc K2=0Xd FFK=e
  . . . . .
  . . . . .
  . . . . .
TLPFILE COMPLETED
```

[2]
```
ANALY TLPFILE  a   MSG IP
  TLPFILE # f
```

[3]
```
ANALY TLPFILE a SUSPECTED FAULTY EQUIPMENT  MSG COMPL
UNIT MV VALUE = g
CODE   EQL   FS   SYM   SD   UNIT   WT   NOTE
[h] [i] [j] [k] [l] [m]  n  [o]
```

[4]
```
ANALY TLPFILE a SUSPECTED FAULTY EQUIPMENT  MSG COMPL
CODE   EQL   FS   SYM   SD   UNIT   WT   NOTE
[h] [i] [j] [k] [l] [m]  n  [o]
```

2. REASON FOR OUTPUT

To print trouble location information for a failing diagnostic.

Format 1 is always printed after diagnostic failures have occurred. This message summarizes the failing trouble locating procedure (TLP) key information for each failing phase.

Formats 2 - 4 are printed only when diagnostic failures have occurred and the TLP option was specified in the input command. The information in these messages is used to repair the failing unit.

See Practices 254-301-100, or 254-302-100 for further details. Also see *System Maintenance Manual*, 254-303-106.

3. VARIABLE FIELD DEFINITIONS

a = Unit and side that failed diagnostic (for example, `CU 0`).

b = Failing diagnostic phase number.

c = Failing TLP keys - word 1. One bit set for each failing TLP key, `0-31`.

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d = Failing TLP keys - word 2. One bit set for each failing TLP key, 32-63.

e = First failing TLP key number.

f = Unique decimal number identifying the TLP process.

g = Model version (mv) of the unit being diagnosed.

h = Equipment code.

i = Equipment location.

j = Functional schematic number for the equipment.

k = Functional schematic symbol number for the equipment.

l = Schematic diagram number for the unit.

m = Unit(s) containing the equipment when not the same as the unit being diagnosed. DO NOT REMOVE POWER OR EQUIPMENT FROM AN ACTIVE OR IN-SERVICE UNIT. ONL in the unit column means on-line or active unit. PU in the unit column means peripheral unit such as disk file controller (DFC) or input output processor (IOP).

n = Weight on a scale from 1 to 10 with the equipment most likely to be faulty having the highest number.

o = Note number. If note is nonzero, see Table 1. Note 0 is not used.

Table 1

Note Number	Definition
CC NOTE 01	Do not remove power or equipment from an active or in-service unit.
CC NOTE 02	Cable to the maintenance channel of the CU.
CC NOTE 03	CU could be held stopped by micro level test set (MLTS) or bus display unit (BDU).
CC NOTE 04	If a ‘‘forced switch’’ of the CU is required, special precautions are required to ensure the appropriate initialization level of the out-of-service (OOS) CU being forced to the active state. An RTR level 4 boot is always required if the side to be forced active has been previously powered down. Seek technical assistance (3B Customer Technical Support) for diagnostic failure analysis and appropriate procedures for the force and boot of an out-of-service CU.
CC NOTE 05	MLTS, TN16, or UN16 if equipped.

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Table 1

Note Number	Definition
CC NOTE 06	CU could be powered down.
CC NOTE 07	Power switch board or one of the power converters may be bad. If ALARM is lighted on power switch board, power cycle CU. If light remains on in one of the power converters, that converter may be bad. If lights go out on all converters and CU fails to power up, power switch board may be bad. (Model 1 3B20 CU power switch circuitry includes EAI board, TN11.)
CC NOTE 10	Board is in input output process (IOP) 0.
CC NOTE 11	Board is in IOP 1.
CC NOTE 50	Channel board in the channel 0 position.
CC NOTE 51	Channel board in the channel 1 position.
CC NOTE 52	Channel board in the channel 2 position.
CC NOTE 53	Channel board in the channel 3 position.
CC NOTE 54	Channel board in the channel 4 position.
CC NOTE 55	Channel board in the channel 5 position.
CC NOTE 56	Channel board in the channel 6 position.
CC NOTE 57	Board in the DMA 0 position (Model 1 UN36).
CC NOTE 58	Board in the DMA 1 position (Model 1 UN36).
CC NOTE 59	A channel address lead is being held active by CU, channel, or DMA.
CC NOTE 60	A channel or DMA bus may be responding and/or acknowledging falsely.
CC NOTE 61	A channel or DMA is holding channel error (ER bit 16) active (low).
CH NOTE 01	Suspect any channel (CH) or direct memory access (DMA).
CH NOTE 02	Unterminated or defective cable on port under test.

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Table 1 *(continued)*

Note Number	Definition
CH NOTE 03	Suspect Helper Unit circuit packs. IOP and DFC circuit packs may be at fault. For the SCSI DFC, these circuit packs include the Host Adapter (HA) and the DFC.
CH NOTE 04	The under-test CH is connected, via the DSCH cable, to another circuit pack. Suspect the DDSBS logic in that circuit pack or the DSCH cable.
CSU NOTE 01	Verify hardware for the kernel stack in interrupt stack cache memory feature corresponds with the cache store unit (CSU's) unit control block (UCB) hardware version (HV) field. A 1 in bit 0 of this field indicates the feature is present. The hardware for this feature is a UN45C store address translation (SAT), with pins 149 and 047 wired together on the SAT backplane to enable the feature. Discrepancy between HV value and hardware should be corrected.
CSU NOTE 04	If a ''forced switch'' of the CU is required, special precautions are required to ensure the appropriate initialization level of the out-of-service (OOS) CU being forced to the active state. An RTR level 4 boot is always required if the side to be forced active has been previously powered down. Seek technical assistance (3B Customer Technical Support) for diagnostic failure analysis and appropriate procedures for the force and boot of an out-of-service CU.
DMA NOTE 01	Suspect any channel or DMA.
DMA NOTE 04	If a ''forced switch'' of the CU is required, special precautions are required to ensure the appropriate initialization level of the out-of-service (OOS) CU being forced to the active state. An RTR level 4 boot is always required if the side to be forced active has been previously powered down. Seek technical assistance (3B Customer Technical Support) for diagnostic failure analysis and appropriate procedures for the force and boot of an out-of-service CU.
DUIC NOTE 01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
DUIC NOTE 02	Replacement equipment must have same microcode (MC) number.

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Table 1 *(continued)*

Note Number	Definition
DCI NOTE 01	The dual serial channel/computer interconnect (DCI) could be powered down. This board is located in the attached processor.
DCI NOTE 02	The attached processor or its software may be the cause of this phase failing.
DFC NOTE 01	The disk file controller (or) disk file control frame (DFC) could be powered down.
DFC NOTE 02	Do not remove power or equipment from an active or in-service unit.
IOP NOTE 01	The input output processor (IOP) could be powered down.
IOP NOTE 02	Do not remove power or equipment from an active or in-service unit.
MASC NOTE 01	Do not remove power or equipment from an active or in-service unit.
MASC NOTE 04	If a ''forced switch'' of the CU is required, special precautions are required to ensure the appropriate initialization level of the out-of-service (OOS) CU being forced to the active state. An RTR level 4 boot is always required if the side to be forced active has been previously powered down. Seek technical assistance (3B Customer Technical Support) for diagnostic failure analysis and appropriate procedures for the force and boot of an out-of-service CU.
MASC NOTE 09	Array identified by DGN CU_ MASC_ PH_ MEMORY FAILURE RESULTS output message.
MASC NOTE 10	Other units on the store bus: CC, other MASC in CU under test (in CUs with two UN39-UN40 MASCs), DMA(s), CSU (if equipped), SAT.
MASC NOTE 12	Any array in Main Store Controller (MASC).
MASC NOTE 13	Other MASC (in CUs with 2 UN39-UN40 MASCs) may have error(s) active in CC ER.
MHD NOTE 01	Part of the DFC, the DFC must be removed from service and powered down before this equipment can be replaced.

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Table 1 *(continued)*

Note Number	Definition
MHD NOTE 09	Refer to the Maintenance Instruction Manual for KS-21995,L2 and KS-22707,L2 Memory available from Century Data System, part number 76261-3xx.
MHD NOTE 10	These circuit cards are located in the logic card cage of the KS-22707,L2 Memory unit. Also refer to MHD NOTE 09.
MHD NOTE 11	The Power Amplifier, VP58 is located behind the logic card cage. Also refer to MHD NOTE 09.
MHD NOTE 12	Codes for all circuit cards in the KS-22707,L1 Memory are a four-character string of alpha-numeric or alpha characters. The first character in the string determines the revision level and the last three characters determine the circuit card code. Identification of the circuit card, therefore, is based on the last three characters.
MHD NOTE 13	Read MHD NOTE 12 then proceed. These circuit cards are located in the logic chassis. Refer to Practice 254-302-210, 300 Megabyte Moving Head Disk Drives, General Description, 3B20D Model 2 Processor.
MHD NOTE 14	Read MHD NOTE 12 then proceed. These circuit cards are located on the deck plate of the memory unit. Refer to Maintenance Instruction Manual for KS-22702,L1 memory.
MHD NOTE 16	MHD could be spun down.
MHD NOTE 17	MHD could be powered down. Check power inverter for alarm or no power. Check MHD power cord, power switch, and power indicator. On KS-22875 340MB MHD, check the diagnostic mode switch behind the front panel to ensure it is not in the diagnostic mode and the diagnostic mode indicator light is extinguished.
MHD NOTE 18	Incorrect ID setting could be the cause of this failure.
MT NOTE 18	Incorrect ID setting could be the cause of this failure.
MTC NOTE 01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
MTC NOTE 02	The indicated faulty equipment is in the transport.

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Table 1 *(continued)*

Note Number	Definition
MTTYC NOTE 01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
SCSDC NOTE 01	Part of the IOP controller; the IOP must be removed from service and powered down before this equipment can be replaced.
SDLC NOTE 01	Part of the IOP controller; the IOP must be removed from service and powered down before this equipment can be replaced.
TTYC NOTE 01	Part of the IOP controller; the IOP must be removed from service and powered down before this equipment can be replaced.
UC NOTE 01	Field test set (FTS) may have control of the utility circuit (UC).

4. ACTION TO BE TAKEN

Format 1 is failing TLP key summary information. If the failing diagnostic did not have the TLP option specified, request the diagnostic again with the TLP option. The failing TLP key summary information can be used to monitor changes in failing TLP keys. No actions based on the contents of this message are required.

Format 2 provides the ID of the TLP process which is running. No actions based on the contents of this message are required.

Formats 3 and 4 are used to repair the faulty unit using the suspected faulty equipment list. The most likely equipment is at the top of the list.

If the NOTE column *o* has non-zero entries, first read the identified TLP notes for the failing unit from Table 1. TLP notes may contain information regarding the cause of the trouble. Check for any specific trouble identified by the TLP notes. In some cases, the trouble can be resolved without replacing equipment.

If the UNIT column *m* has non-blank entries, the suspected faulty equipment is not in the unit that failed diagnostics. Defer replacing equipment in other units until all suspected equipment in the failing unit has been tried. It may be necessary to reconfigure the system to allow the other unit(s) to be removed from service. It will be necessary to remove from service and power down the other unit(s) before replacing equipment in the other unit(s).

Replace the equipment at the top of the list with a spare, and retest the unit with the diagnostics. If the unit still fails, restore the original equipment to the unit and replace the next equipment on the list with a spare. Continue until faulty equipment found or list exhausted.

When faulty equipment is found, verify it causes the diagnostic failure by restoring it to the unit and rerunning diagnostics. If the diagnostics DO NOT fail as before, suspect the faulty equipment is intermittent or temperature sensitive. Occasionally, removing and

restoring power to the unit or reseating equipment clears the trouble. Note the equipment involved in clearing the trouble. If the diagnostic failure returns and the same equipment is involved in clearing the trouble, replace the equipment.

If asterisks (*) are printed in the equipment location field *i*, TLP cannot directly determine the location of the equipment from the failing diagnostic *a*. If the `UNIT` column *m* is blank, all equipment of the code identified in *h* are implicated in the failing unit. If the `UNIT` column *m* identifies another unit (or units), all equipment of the code identified in *h* are implicated in the unit (or units) identified by *m*. In some cases, further resolution is possible; see below.

If *h* = `UN09`, TLP may not be able to directly determine the channel based on the unit under test. Channel diagnostics should be run to more accurately determine the faulty equipment. For example, if the DMA 0 diagnostic failed and TLP implicated the UN09, run DMA 0 channel diagnostics (CH 11-14).

If *h* = `UN19`, this indicates that TLP cannot directly determine the channel based on the unit under test. Channel diagnostics (CH 0-9) should be run to more accurately determine the faulty equipment.

If *h* = `TN69` or `TN70`, the TN69 or TN70 equipment in the peripheral device being used as a helper unit is being implicated. See the diagnostic listing for further information on the peripheral device involved with the phase which failed. Table 2 translates some of the channel diagnostic phases to the subchannel being tested.

Table 2

Failing CH Phase	Subchannel Under Test
8 or 24	0
9 or 25	1
10 or 26	2
11 or 27	3
12 or 28	4
13 or 29	5
14 or 30	6
15 or 31	7
16 or 32	8
17 or 33	9
18 or 34	10
19 or 35	11
20 or 36	12
21 or 37	13
22 or 38	14
23 or 39	15

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If *h* = TN14, TN28 or TN56, or TN2012, this indicates TLP may not be able to determine the failing mainstore array (MASA) based on the unit under test. Some MASC diagnostic phases have a histogram output message that identifies the failing MASA. If the MASC diagnostic was not run, the MASC diagnostic should be run to more accurately determine the faulty equipment.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 16.
Format 2 has OMDB keys of 17 and 18.

Input Messages

```
DGN:CU
DGN:DCI
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:MHD
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
EX:CU
EX:DCI
EX:DFC
EX:DUIC
EX:HSDC
EX:IOP
EX:LDPARM
EX:LOOP
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE
EX:SCSDC
EX:SDLC
EX:STEP
EX:STOP
EX:TTYC
RST:CU
RST:DCI
RST:DFC
RST:DUI
RST:DUIC
RST:HSD
```

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RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC

Output Messages

DGN-AUDIT
DGN-CU
DGN-CU,MASC
DGN-DCI
DGN-DFC
DGN-DUIC
DGN-HSDC
DGN-IOP
DGN-MHD
DGN-MTC
DGN-MTTYC
DGN-SCSDC
DGN-SDLC
DGN-TTYC
EX-CU
EX-DCI
EX-DFC
EX-DUIC
EX-HSDC
EX-IOP
EX-LDPARM
EX-LOOP
EX-MHD
EX-MTC
EX-MTTYC
EX-PAUSE
EX-SCSDC
EX-SDLC
EX-STEP
EX-TTYC
RST-CU
RST-DCI
RST-DFC

```
RST-DUI
RST-DUIC
RST-HSD
RST-HSDC
RST-IOP
RST-MHD
RST-MT
RST-MTC
RST-MTTY
RST-MTTYC
RST-ROP
RST-SBUS
RST-SCC
RST-SCSDC
RST-SDL
RST-SDLC
RST-TTY
RST-TTYC
```

Practice 254-302-100 *Input-Output Interfaces Description and Theory of Operation Lucent Technologies 3B20D Model 2 Computer*

Practice 254-302-210 *300 Megabyte Moving Head Disk Drives General Description 3B20D Model 2 Processor*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . ANALY-TLPFILE-C
GENERIC . . . . . UNIX RTR R21.23, R21.27 and R21.30
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1]
```
ANALY TLPFILE a SUMMARY DATA MSG STARTED
TLP: a PH=b K1=0Xc K2=0Xd FFK=e
  . . . . .
  . . . . .
  . . . . .
TLPFILE COMPLETED
```

[2]
```
ANALY TLPFILE  a   MSG IP
  TLPFILE # f
```

[3]
```
ANALY TLPFILE a SUSPECTED FAULTY EQUIPMENT  MSG COMPL
UNIT MV VALUE = g
CODE   EQL   FS   SYM   SD   UNIT   WT   NOTE
[h] [i] [j] [k] [l] [m]  n  [o]
```

[4]
```
ANALY TLPFILE a SUSPECTED FAULTY EQUIPMENT  MSG COMPL
CODE   EQL   FS   SYM   SD   UNIT   WT   NOTE
[h] [i] [j] [k] [l] [m]  n  [o]
```

2. REASON FOR OUTPUT

To print trouble location information for a failing diagnostic.

Format 1 is always printed after diagnostic failures have occurred. This message summarizes the failing trouble locating procedure (TLP) key information for each failing phase.

Formats 2 - 4 are printed only when diagnostic failures have occurred and the TLP option was specified in the input command. The information in these messages is used to repair the failing unit.

See Practices 254-301-100, or 254-302-100 for further details. Also see *System Maintenance Manual*, 254-303-106.

3. VARIABLE FIELD DEFINITIONS

a = Unit and side that failed diagnostic (for example, `CU 0`).

b = Failing diagnostic phase number.

c = Failing TLP keys - word 1. One bit set for each failing TLP key, `0-31`.

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d = Failing TLP keys - word 2. One bit set for each failing TLP key, 32-63.

e = First failing TLP key number.

f = Unique decimal number identifying the TLP process.

g = Model version (mv) of the unit being diagnosed.

h = Equipment code.

i = Equipment location.

j = Functional schematic number for the equipment.

k = Functional schematic symbol number for the equipment.

l = Schematic diagram number for the unit.

m = Unit(s) containing the equipment when not the same as the unit being diagnosed. DO NOT REMOVE POWER OR EQUIPMENT FROM AN ACTIVE OR IN-SERVICE UNIT. ONL in the unit column means on-line or active unit. PU in the unit column means peripheral unit such as disk file controller (DFC) or input output processor (IOP).

n = Weight on a scale from 1 to 10 with the equipment most likely to be faulty having the highest number.

o = Note number. If note is nonzero, see Table 1. Note 0 is not used.

Table 1

Note Number	Definition
CC NOTE 01	Do not remove power or equipment from an active or in-service unit.
CC NOTE 02	Cable to the maintenance channel of the CU.
CC NOTE 03	CU could be held stopped by micro level test set (MLTS) or bus display unit (BDU).
CC NOTE 04	If a ‘‘forced switch’’ of the CU is required, special precautions are required to ensure the appropriate initialization level of the out-of-service (OOS) CU being forced to the active state. An RTR level 4 boot is always required if the side to be forced active has been previously powered down. Seek technical assistance (3B Customer Technical Support) for diagnostic failure analysis and appropriate procedures for the force and boot of an out-of-service CU.

Table 1

Note Number	Definition
CC NOTE 05	MLTS, TN16, or UN16 if equipped.
CC NOTE 06	CU could be powered down.
CC NOTE 07	Power switch board or one of the power converters may be bad. If ALARM is lighted on power switch board, power cycle CU. If light remains on in one of the power converters, that converter may be bad. If lights go out on all converters and CU fails to power up, power switch board may be bad. (Model 1 3B20 CU power switch circuitry includes EAI board, TN11.)
CC NOTE 10	Board is in input output process (IOP) 0.
CC NOTE 11	Board is in IOP 1.
CC NOTE 50	Channel board in the channel 0 position.
CC NOTE 51	Channel board in the channel 1 position.
CC NOTE 52	Channel board in the channel 2 position.
CC NOTE 53	Channel board in the channel 3 position.
CC NOTE 54	Channel board in the channel 4 position.
CC NOTE 55	Channel board in the channel 5 position.
CC NOTE 56	Channel board in the channel 6 position.
CC NOTE 57	Board in the DMA 0 position (Model 1 UN36).
CC NOTE 58	Board in the DMA 1 position (Model 1 UN36).
CC NOTE 59	A channel address lead is being held active by CU, channel, or DMA.
CC NOTE 60	A channel or DMA bus may be responding and/or acknowledging falsely.
CC NOTE 61	A channel or DMA is holding channel error (ER bit 16) active (low).

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Table 1 *(continued)*

Note Number	Definition
CH NOTE 01	Suspect any channel (CH) or direct memory access (DMA).
CH NOTE 02	Unterminated or defective cable on port under test.
CSU NOTE 01	Verify hardware for the kernel stack in interrupt stack cache memory feature corresponds with the cache store unit (CSU's) unit control block (UCB) hardware version (HV) field. A 1 in bit 0 of this field indicates the feature is present. The hardware for this feature is a UN45C store address translation (SAT), with pins 149 and 047 wired together on the SAT backplane to enable the feature. Discrepancy between HV value and hardware should be corrected.
CSU NOTE 04	If a ''forced switch'' of the CU is required, special precautions are required to ensure the appropriate initialization level of the out-of-service (OOS) CU being forced to the active state. An RTR level 4 boot is always required if the side to be forced active has been previously powered down. Seek technical assistance (3B Customer Technical Support) for diagnostic failure analysis and appropriate procedures for the force and boot of an out-of-service CU.

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Table 1 *(continued)*

Note Number	Definition
DMA NOTE 01	Suspect any channel or DMA.
DMA NOTE 04	If a ''forced switch'' of the CU is required, special precautions are required to ensure the appropriate initialization level of the out-of-service (OOS) CU being forced to the active state. An RTR level 4 boot is always required if the side to be forced active has been previously powered down. Seek technical assistance (3B Customer Technical Support) for diagnostic failure analysis and appropriate procedures for the force and boot of an out-of-service CU.
DUIC NOTE 01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
DUIC NOTE 02	Replacement equipment must have same microcode (MC) number.
DCI NOTE 01	The dual serial channel/computer interconnect (DCI) could be powered down. This board is located in the attached processor.
DCI NOTE 02	The attached processor or its software may be the cause of this phase failing.
DFC NOTE 01	The disk file controller (or) disk file control frame (DFC) could be powered down.
DFC NOTE 02	Do not remove power or equipment from an active or in-service unit.
IOP NOTE 01	The input output processor (IOP) could be powered down.
IOP NOTE 02	Do not remove power or equipment from an active or in-service unit.
MASC NOTE 01	Do not remove power or equipment from an active or in-service unit.

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Table 1 *(continued)*

Note Number	Definition
MASC NOTE 04	If a ''forced switch'' of the CU is required, special precautions are required to ensure the appropriate initialization level of the out-of-service (OOS) CU being forced to the active state. An RTR level 4 boot is always required if the side to be forced active has been previously powered down. Seek technical assistance (3B Customer Technical Support) for diagnostic failure analysis and appropriate procedures for the force and boot of an out-of-service CU.
MASC NOTE 09	Array identified by DGN CU_ MASC_ PH_ MEMORY FAILURE RESULTS output message.
MASC NOTE 10	Other units on the store bus: CC, other MASC in CU under test (in CUs with two UN39-UN40 MASCs), DMA(s), CSU (if equipped), SAT.
MASC NOTE 12	Any array in Main Store Controller (MASC).
MASC NOTE 13	Other MASC (in CUs with 2 UN39-UN40 MASCs) may have error(s) active in CC ER.
MHD NOTE 01	Part of the DFC, the DFC must be removed from service and powered down before this equipment can be replaced.

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Table 1 *(continued)*

Note Number	Definition
MHD NOTE 09	Refer to the Maintenance Instruction Manual for KS-21995,L2 and KS-22707,L2 Memory available from Century Data System, part number 76261-3xx.
MHD NOTE 10	These circuit cards are located in the logic card cage of the KS-22707,L2 Memory unit. Also refer to MHD NOTE 09.
MHD NOTE 11	The Power Amplifier, VP58 is located behind the logic card cage. Also refer to MHD NOTE 09.
MHD NOTE 12	Codes for all circuit cards in the KS-22707,L1 Memory are a four-character string of alpha-numeric or alpha characters. The first character in the string determines the revision level and the last three characters determine the circuit card code. Identification of the circuit card, therefore, is based on the last three characters.
MHD NOTE 13	Read MHD NOTE 12 then proceed. These circuit cards are located in the logic chassis. Refer to Practice 254-302-210, 300 Megabyte Moving Head Disk Drives, General Description, 3B20D Model 2 Processor.
MHD NOTE 14	Read MHD NOTE 12 then proceed. These circuit cards are located on the deck plate of the memory unit. Refer to Maintenance Instruction Manual for KS-22702,L1 memory.
MHD NOTE 16	MHD could be spun down.
MHD NOTE 17	MHD could be powered down. Check power inverter for alarm or no power. Check MHD power cord, power switch, and power indicator. On KS-22875 340MB MHD, check the diagnostic mode switch behind the front panel to ensure it is not in the diagnostic mode and the diagnostic mode indicator light is extinguished.
MHD NOTE 18	Incorrect ID setting could be the cause of this failure.
MT NOTE 18	Incorrect ID setting could be the cause of this failure.
MTC NOTE 01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
MTC NOTE 02	The indicated faulty equipment is in the transport.

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Table 1 *(continued)*

Note Number	Definition
MTTYC NOTE 01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
SCSDC NOTE 01	Part of the IOP controller; the IOP must be removed from service and powered down before this equipment can be replaced.
SDLC NOTE 01	Part of the IOP controller; the IOP must be removed from service and powered down before this equipment can be replaced.
TTYC NOTE 01	Part of the IOP controller; the IOP must be removed from service and powered down before this equipment can be replaced.
UC NOTE 01	Field test set (FTS) may have control of the utility circuit (UC).

4. ACTION TO BE TAKEN

Format 1 is failing TLP key summary information. If the failing diagnostic did not have the TLP option specified, request the diagnostic again with the TLP option. The failing TLP key summary information can be used to monitor changes in failing TLP keys. No actions based on the contents of this message are required.

Format 2 provides the ID of the TLP process which is running. No actions based on the contents of this message are required.

Formats 3 and 4 are used to repair the faulty unit using the suspected faulty equipment list. The most likely equipment is at the top of the list.

If the NOTE column *o* has non-zero entries, first read the identified TLP notes for the failing unit from Table 1. TLP notes may contain information regarding the cause of the trouble. Check for any specific trouble identified by the TLP notes. In some cases, the trouble can be resolved without replacing equipment.

If the UNIT column *m* has non-blank entries, the suspected faulty equipment is not in the unit that failed diagnostics. Defer replacing equipment in other units until all suspected equipment in the failing unit has been tried. It may be necessary to reconfigure the system to allow the other unit(s) to be removed from service. It will be necessary to remove from service and power down the other unit(s) before replacing equipment in the other unit(s).

Replace the equipment at the top of the list with a spare, and retest the unit with the diagnostics. If the unit still fails, restore the original equipment to the unit and replace the next equipment on the list with a spare. Continue until faulty equipment found or list exhausted.

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When faulty equipment is found, verify it causes the diagnostic failure by restoring it to the unit and rerunning diagnostics. If the diagnostics `DO NOT` fail as before, suspect the faulty equipment is intermittent or temperature sensitive. Occasionally, removing and restoring power to the unit or reseating equipment clears the trouble. Note the equipment involved in clearing the trouble. If the diagnostic failure returns and the same equipment is involved in clearing the trouble, replace the equipment.

If asterisks (*) are printed in the equipment location field *i*, TLP cannot directly determine the location of the equipment from the failing diagnostic *a*. If the `UNIT` column *m* is blank, all equipment of the code identified in *h* are implicated in the failing unit. If the `UNIT` column *m* identifies another unit (or units), all equipment of the code identified in *h* are implicated in the unit (or units) identified by *m*. In some cases, further resolution is possible; see below.

If *h* = `UN09`, TLP may not be able to directly determine the channel based on the unit under test. Channel diagnostics should be run to more accurately determine the faulty equipment. For example, if the DMA 0 diagnostic failed and TLP implicated the UN09, run DMA 0 channel diagnostics (CH 11-14).

If *h* = `UN19`, this indicates that TLP cannot directly determine the channel based on the unit under test. Channel diagnostics (CH 0-9) should be run to more accurately determine the faulty equipment.

If *h* = `TN69` or `TN70`, the TN69 or TN70 equipment in the peripheral device being used as a helper unit is being implicated. See the diagnostic listing for further information on the peripheral device involved with the phase which failed. Table 2 translates some of the channel diagnostic phases to the subchannel being tested.

Table 2

Failing CH Phase	Subchannel Under Test
8 or 24	0
9 or 25	1
10 or 26	2
11 or 27	3
12 or 28	4
13 or 29	5
14 or 30	6
15 or 31	7
16 or 32	8
17 or 33	9
18 or 34	10

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Table 2 continued

Failing CH Phase	Subchannel Under Test
19 or 35	11
20 or 36	12
21 or 37	13
22 or 38	14
23 or 39	15

If *h* = TN14, TN28 or TN56, or TN2012, this indicates TLP may not be able to determine the failing mainstore array (MASA) based on the unit under test. Some MASC diagnostic phases have a histogram output message that identifies the failing MASA. If the MASC diagnostic was not run, the MASC diagnostic should be run to more accurately determine the faulty equipment.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 16.
Format 2 has OMDB keys of 17 and 18.

Input Messages
DGN:CU
DGN:DCI
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:MHD
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
EX:CU
EX:DCI
EX:DFC
EX:DUIC
EX:HSDC
EX:IOP
EX:LDPARM
EX:LOOP
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE

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EX:SCSDC
EX:SDLC
EX:STEP
EX:STOP
EX:TTYC
RST:CU
RST:DCI
RST:DFC
RST:DUI
RST:DUIC
RST:HSD
RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC

Output Messages

DGN-AUDIT
DGN-CU
DGN-CU,MASC
DGN-DCI
DGN-DFC
DGN-DUIC
DGN-HSDC
DGN-IOP
DGN-MHD
DGN-MTC
DGN-MTTYC
DGN-SCSDC
DGN-SDLC
DGN-TTYC
EX-CU
EX-DCI
EX-DFC
EX-DUIC
EX-HSDC
EX-IOP
EX-LDPARM
EX-LOOP

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```
EX-MHD
EX-MTC
EX-MTTYC
EX-PAUSE
EX-SCSDC
EX-SDLC
EX-STEP
EX-TTYC
RST-CU
RST-DCI
RST-DFC
RST-DUI
RST-DUIC
RST-HSD
RST-HSDC
RST-IOP
RST-MHD
RST-MT
RST-MTC
RST-MTTY
RST-MTTYC
RST-ROP
RST-SBUS
RST-SCC
RST-SCSDC
RST-SDL
RST-SDLC
RST-TTY
RST-TTYC
```

Practice 254-302-100 *Input-Output Interfaces Description and Theory of Operation Lucent Technologies 3B20D Model 2 Computer*

Practice 254-302-210 *300 Megabyte Moving Head Disk Drives General Description 3B20D Model 2 Processor*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

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ID . . . . . ANALY-TLPFILE-D
GENERIC . . . . . UNIX RTR R21.35 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1]
```
ANALY TLPFILE a SUMMARY DATA MSG STARTED
TLP: a PH=b K1=0Xc K2=0Xd FFK=e
  . . . . .
  . . . . .
  . . . . .
TLPFILE COMPLETED
```

[2]
```
ANALY TLPFILE  a   MSG IP
  TLPFILE # f
```

[3]
```
ANALY TLPFILE a SUSPECTED FAULTY EQUIPMENT  MSG COMPL
UNIT MV VALUE = g
CODE   EQL   FS   SYM   SD   UNIT   WT   NOTE
[h] [i] [j] [k] [l] [m]  n  [o]
VERIFY IF TLP NOTE 4 IS PRESENT - BEFORE REPLACING THE EQUIPMENT
ASSOCIATED WITH NOTE 4, CONTACT 3B/RTR GLOBAL CTS IMMEDIATELY.
TEXT FROM TLP NOTE 4 FOLLOWS:
IF A FORCED SWITCH OF THE CU IS REQUIRED, SPECIAL PRECAUTIONS
ARE REQUIRED TO INSURE THE APPROPRIATE INITIALIZATION LEVEL
OF THE OUT-OF-SERVICE (OOS) CU BEING FORCED TO THE ACTIVE STATE.
AN RTR LEVEL 4 BOOT IS ALWAYS REQUIRED IF THE SIDE TO BE
FORCED ACTIVE HAS BEEN PREVIOUSLY POWERED DOWN.
SEEK TECHNICAL ASSISTANCE (3B CUSTOMER TECHNICAL SUPPORT) FOR
DIAGNOSTIC FAILURE ANALYSIS AND APPROPRIATE PROCEDURES
FOR THE FORCE AND BOOT OF AN OUT-OF-SERVICE CU.
```

[4]
```
ANALY TLPFILE a SUSPECTED FAULTY EQUIPMENT  MSG COMPL
CODE   EQL   FS   SYM   SD   UNIT   WT   NOTE
[h] [i] [j] [k] [l] [m]  n  [o]
```

2. REASON FOR OUTPUT

To print trouble location information for a failing diagnostic.

Format 1 is always printed after diagnostic failures have occurred. This message summarizes the failing trouble locating procedure (TLP) key information for each failing phase.

Formats 2 - 4 are printed only when diagnostic failures have occurred and the TLP option was specified in the input command. The information in these messages is used to repair the failing unit.

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See Practices 254-301-100, or 254-302-100 for further details. Also see *System Maintenance Manual*, 254-303-106.

3. VARIABLE FIELD DEFINITIONS

a = Unit and side that failed diagnostic (for example, `CU 0`).

b = Failing diagnostic phase number.

c = Failing TLP keys - word 1. One bit set for each failing TLP key, `0-31`.

d = Failing TLP keys - word 2. One bit set for each failing TLP key, `32-63`.

e = First failing TLP key number.

f = Unique decimal number identifying the TLP process.

g = Model version (mv) of the unit being diagnosed.

h = Equipment code.

i = Equipment location.

j = Functional schematic number for the equipment.

k = Functional schematic symbol number for the equipment.

l = Schematic diagram number for the unit.

m = Unit(s) containing the equipment when not the same as the unit being diagnosed. `DO NOT REMOVE POWER OR EQUIPMENT FROM AN ACTIVE OR IN-SERVICE UNIT.` `ONL` in the unit column means on-line or active unit. `PU` in the unit column means peripheral unit such as disk file controller (DFC) or input output processor (IOP).

n = Weight on a scale from `1` to `10` with the equipment most likely to be faulty having the highest number.

o = Note number. If note is nonzero, see Table 1. Note 0 is not used.

Table 1

Note Number	Definition
`CC NOTE 01`	Do not remove power or equipment from an active or in-service unit.
`CC NOTE 02`	Cable to the maintenance channel of the CU.
`CC NOTE 03`	CU could be held stopped by micro level test set (MLTS) or bus display unit (BDU).

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Table 1

Note Number	Definition
CC NOTE 04	If a ''forced switch'' of the CU is required, special precautions are required to ensure the appropriate initialization level of the out-of-service (OOS) CU being forced to the active state. An RTR level 4 boot is always required if the side to be forced active has been previously powered down. Seek technical assistance (3B Customer Technical Support) for diagnostic failure analysis and appropriate procedures for the force and boot of an out-of-service CU.
CC NOTE 05	MLTS, TN16, or UN16 if equipped.
CC NOTE 06	CU could be powered down.
CC NOTE 07	Power switch board or one of the power converters may be bad. If ALARM is lighted on power switch board, power cycle CU. If light remains on in one of the power converters, that converter may be bad. If lights go out on all converters and CU fails to power up, power switch board may be bad. (Model 1 3B20 CU power switch circuitry includes EAI board, TN11.)
CC NOTE 10	Board is in input output process (IOP) 0.
CC NOTE 11	Board is in IOP 1.
CC NOTE 50	Channel board in the channel 0 position.
CC NOTE 51	Channel board in the channel 1 position.
CC NOTE 52	Channel board in the channel 2 position.
CC NOTE 53	Channel board in the channel 3 position.
CC NOTE 54	Channel board in the channel 4 position.
CC NOTE 55	Channel board in the channel 5 position.
CC NOTE 56	Channel board in the channel 6 position.
CC NOTE 57	Board in the DMA 0 position (Model 1 UN36).

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Table 1 *(continued)*

Note Number	Definition
CC NOTE 58	Board in the DMA 1 position (Model 1 UN36).
CC NOTE 59	A channel address lead is being held active by CU, channel, or DMA.
CC NOTE 60	A channel or DMA bus may be responding and/or acknowledging falsely.
CC NOTE 61	A channel or DMA is holding channel error (ER bit 16) active (low).
CH NOTE 01	Suspect any channel (CH) or direct memory access (DMA).
CH NOTE 02	Unterminated or defective cable on port under test.
CH NOTE 03	Suspect Helper Unit circuit packs. IOP and DFC circuit packs may be at fault. For the SCSI DFC, these circuit packs include the Host Adapter (HA) and the DFC.
CH NOTE 04	The under-test CH is connected, via the DSCH cable, to another circuit pack. Suspect the DDSBS logic in that circuit pack or the DSCH cable.
CSU NOTE 01	Verify hardware for the kernel stack in interrupt stack cache memory feature corresponds with the cache store unit (CSU's) unit control block (UCB) hardware version (HV) field. A 1 in bit 0 of this field indicates the feature is present. The hardware for this feature is a UN45C store address translation (SAT), with pins 149 and 047 wired together on the SAT backplane to enable the feature. Discrepancy between HV value and hardware should be corrected.
CSU NOTE 04	If a ''forced switch'' of the CU is required, special precautions are required to ensure the appropriate initialization level of the out-of-service (OOS) CU being forced to the active state. An RTR level 4 boot is always required if the side to be forced active has been previously powered down. Seek technical assistance (3B Customer Technical Support) for diagnostic failure analysis and appropriate procedures for the force and boot of an out-of-service CU.

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Table 1 *(continued)*

Note Number	Definition
DMA NOTE 01	Suspect any channel or DMA.
DMA NOTE 04	If a ‘‘forced switch’’ of the CU is required, special precautions are required to ensure the appropriate initialization level of the out-of-service (OOS) CU being forced to the active state. An RTR level 4 boot is always required if the side to be forced active has been previously powered down. Seek technical assistance (3B Customer Technical Support) for diagnostic failure analysis and appropriate procedures for the force and boot of an out-of-service CU.
DUIC NOTE 01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
DUIC NOTE 02	Replacement equipment must have same microcode (MC) number.

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Table 1 *(continued)*

Note Number	Definition
DCI NOTE 01	The dual serial channel/computer interconnect (DCI) could be powered down. This board is located in the attached processor.
DCI NOTE 02	The attached processor or its software may be the cause of this phase failing.
DFC NOTE 01	The disk file controller (or) disk file control frame (DFC) could be powered down.
DFC NOTE 02	Do not remove power or equipment from an active or in-service unit.
IOP NOTE 01	The input output processor (IOP) could be powered down.
IOP NOTE 02	Do not remove power or equipment from an active or in-service unit.
MASC NOTE 01	Do not remove power or equipment from an active or in-service unit.
MASC NOTE 04	If a ''forced switch'' of the CU is required, special precautions are required to ensure the appropriate initialization level of the out-of-service (OOS) CU being forced to the active state. An RTR level 4 boot is always required if the side to be forced active has been previously powered down. Seek technical assistance (3B Customer Technical Support) for diagnostic failure analysis and appropriate procedures for the force and boot of an out-of-service CU.
MASC NOTE 09	Array identified by DGN CU_ MASC_ PH_ MEMORY FAILURE RESULTS output message.
MASC NOTE 10	Other units on the store bus: CC, other MASC in CU under test (in CUs with two UN39-UN40 MASCs), DMA(s), CSU (if equipped), SAT.
MASC NOTE 12	Any array in Main Store Controller (MASC).
MASC NOTE 13	Other MASC (in CUs with 2 UN39-UN40 MASCs) may have error(s) active in CC ER.
MHD NOTE 01	Part of the DFC, the DFC must be removed from service and powered down before this equipment can be replaced.

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Table 1 *(continued)*

Note Number	Definition
MHD NOTE 09	Refer to the Maintenance Instruction Manual for KS-21995,L2 and KS-22707,L2 Memory available from Century Data System, part number 76261-3xx.
MHD NOTE 10	These circuit cards are located in the logic card cage of the KS-22707,L2 Memory unit. Also refer to MHD NOTE 09.
MHD NOTE 11	The Power Amplifier, VP58 is located behind the logic card cage. Also refer to MHD NOTE 09.
MHD NOTE 12	Codes for all circuit cards in the KS-22707,L1 Memory are a four-character string of alpha-numeric or alpha characters. The first character in the string determines the revision level and the last three characters determine the circuit card code. Identification of the circuit card, therefore, is based on the last three characters.
MHD NOTE 13	Read MHD NOTE 12 then proceed. These circuit cards are located in the logic chassis. Refer to Practice 254-302-210, 300 Megabyte Moving Head Disk Drives, General Description, 3B20D Model 2 Processor.
MHD NOTE 14	Read MHD NOTE 12 then proceed. These circuit cards are located on the deck plate of the memory unit. Refer to Maintenance Instruction Manual for KS-22702,L1 memory.
MHD NOTE 16	MHD could be spun down.
MHD NOTE 17	MHD could be powered down. Check power inverter for alarm or no power. Check MHD power cord, power switch, and power indicator. On KS-22875 340MB MHD, check the diagnostic mode switch behind the front panel to ensure it is not in the diagnostic mode and the diagnostic mode indicator light is extinguished.
MHD NOTE 18	Incorrect ID setting could be the cause of this failure.
MT NOTE 18	Incorrect ID setting could be the cause of this failure.
MTC NOTE 01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
MTC NOTE 02	The indicated faulty equipment is in the transport.

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Table 1 *(continued)*

Note Number	Definition
MTTYC NOTE 01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
SCSDC NOTE 01	Part of the IOP controller; the IOP must be removed from service and powered down before this equipment can be replaced.
SDLC NOTE 01	Part of the IOP controller; the IOP must be removed from service and powered down before this equipment can be replaced.
TTYC NOTE 01	Part of the IOP controller; the IOP must be removed from service and powered down before this equipment can be replaced.
UC NOTE 01	Field test set (FTS) may have control of the utility circuit (UC).

4. ACTION TO BE TAKEN

Format 1 is failing TLP key summary information. If the failing diagnostic did not have the TLP option specified, request the diagnostic again with the TLP option. The failing TLP key summary information can be used to monitor changes in failing TLP keys. No actions based on the contents of this message are required.

Format 2 provides the ID of the TLP process which is running. No actions based on the contents of this message are required.

Formats 3 and 4 are used to repair the faulty unit using the suspected faulty equipment list. The most likely equipment is at the top of the list.

If the NOTE column *o* has non-zero entries, first read the identified TLP notes for the failing unit from Table 1. TLP notes may contain information regarding the cause of the trouble. Check for any specific trouble identified by the TLP notes. In some cases, the trouble can be resolved without replacing equipment.

If the UNIT column *m* has non-blank entries, the suspected faulty equipment is not in the unit that failed diagnostics. Defer replacing equipment in other units until all suspected equipment in the failing unit has been tried. It may be necessary to reconfigure the system to allow the other unit(s) to be removed from service. It will be necessary to remove from service and power down the other unit(s) before replacing equipment in the other unit(s).

Replace the equipment at the top of the list with a spare, and retest the unit with the diagnostics. If the unit still fails, restore the original equipment to the unit and replace the next equipment on the list with a spare. Continue until faulty equipment found or list exhausted.

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When faulty equipment is found, verify it causes the diagnostic failure by restoring it to the unit and rerunning diagnostics. If the diagnostics `DO NOT` fail as before, suspect the faulty equipment is intermittent or temperature sensitive. Occasionally, removing and restoring power to the unit or reseating equipment clears the trouble. Note the equipment involved in clearing the trouble. If the diagnostic failure returns and the same equipment is involved in clearing the trouble, replace the equipment.

If asterisks (*) are printed in the equipment location field *i*, TLP cannot directly determine the location of the equipment from the failing diagnostic *a*. If the `UNIT` column *m* is blank, all equipment of the code identified in *h* are implicated in the failing unit. If the `UNIT` column *m* identifies another unit (or units), all equipment of the code identified in *h* are implicated in the unit (or units) identified by *m*. In some cases, further resolution is possible; see below.

If *h* = `UN09`, TLP may not be able to directly determine the channel based on the unit under test. Channel diagnostics should be run to more accurately determine the faulty equipment. For example, if the DMA 0 diagnostic failed and TLP implicated the UN09, run DMA 0 channel diagnostics (CH 11-14).

If *h* = `UN19`, this indicates that TLP cannot directly determine the channel based on the unit under test. Channel diagnostics (CH 0-9) should be run to more accurately determine the faulty equipment.

If *h* = `TN69` or `TN70`, the TN69 or TN70 equipment in the peripheral device being used as a helper unit is being implicated. See the diagnostic listing for further information on the peripheral device involved with the phase which failed. Table 2 translates some of the channel diagnostic phases to the subchannel being tested.

Table 2

Failing CH Phase	Subchannel Under Test
8 or 24	0
9 or 25	1
10 or 26	2
11 or 27	3
12 or 28	4
13 or 29	5
14 or 30	6
15 or 31	7
16 or 32	8
17 or 33	9
18 or 34	10

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Table 2 continued

Failing CH Phase	Subchannel Under Test
19 or 35	11
20 or 36	12
21 or 37	13
22 or 38	14
23 or 39	15

If *h* = TN14, TN28 or TN56, or TN2012, this indicates TLP may not be able to determine the failing mainstore array (MASA) based on the unit under test. Some MASC diagnostic phases have a histogram output message that identifies the failing MASA. If the MASC diagnostic was not run, the MASC diagnostic should be run to more accurately determine the faulty equipment.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 16.
Format 2 has OMDB keys of 17 and 18.

Input Messages

```
DGN:CU
DGN:DCI
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:MHD
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
EX:CU
EX:DCI
EX:DFC
EX:DUIC
EX:HSDC
EX:IOP
EX:LDPARM
EX:LOOP
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE
```

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EX:SCSDC
EX:SDLC
EX:STEP
EX:STOP
EX:TTYC
RST:CU
RST:DCI
RST:DFC
RST:DUI
RST:DUIC
RST:HSD
RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC

Output Messages

DGN-AUDIT
DGN-CU
DGN-CU,MASC
DGN-DCI
DGN-DFC
DGN-DUIC
DGN-HSDC
DGN-IOP
DGN-MHD
DGN-MTC
DGN-MTTYC
DGN-SCSDC
DGN-SDLC
DGN-TTYC
EX-CU
EX-DCI
EX-DFC
EX-DUIC
EX-HSDC
EX-IOP
EX-LDPARM
EX-LOOP

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```
EX-MHD
EX-MTC
EX-MTTYC
EX-PAUSE
EX-SCSDC
EX-SDLC
EX-STEP
EX-TTYC
RST-CU
RST-DCI
RST-DFC
RST-DUI
RST-DUIC
RST-HSD
RST-HSDC
RST-IOP
RST-MHD
RST-MT
RST-MTC
RST-MTTY
RST-MTTYC
RST-ROP
RST-SBUS
RST-SCC
RST-SCSDC
RST-SDL
RST-SDLC
RST-TTY
RST-TTYC
```

Practice 254-302-100 *Input-Output Interfaces Description and Theory of Operation Lucent Technologies 3B20D Model 2 Computer*

Practice 254-302-210 *300 Megabyte Moving Head Disk Drives General Description 3B20D Model 2 Processor*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . APPLY-OMDB-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has 15 formats.

[1] `APPLY OMDB COMPLETED`

[2]
```
APPLY OMDB COMPLETED
NO OMDB LOG FILE FOUND
```

[3]
```
APPLY OMDB NO DATABASE ENTRY FOUND FOR THE
FOLLOWING KEYS:
b
```

[4]
```
APPLY OMDB FAILED
UNABLE TO ACCESS /cft/spl/omdb
```

[5]
```
APPLY OMDB LOGFILE ERROR
ENTRY SKIPPED
c
```

[6]
```
APPLY OMDB CANNOT OPEN OR CREATE LOGFILE
UPDATE NOT LOGGED
```

[7]
```
APPLY OMDB ABORTED
UNABLE TO CREATE TEMP FILE
```

[8]
```
APPLY OMDB ABORTED
UNABLE TO SEND REQUEST TO CSOP
```

[9] `APPLY OMDB ABORTED`

[10]
```
APPLY OMDB FAILED
UNABLE TO LINK -- DATA SAVED IN FILE d
MOVE THE CONTENTS OF THIS FILE TO e
```

[11]
```
REPT CSOP FALLOC SYSTEM CALL FAILED
APPLY OMDB ABORTED
```

[12]
```
REPT CSOP CREATE SYSTEM CALL FAILED
APPLY OMDB ABORTED
```

[13] `REPT CSOP WRITE SYSTEM CALL FAILED`
`APPLY OMDB ABORTED`

[14] `REPT CSOP OPEN SYSTEM CALL FAILED`
`APPLY OMDB ABORTED`

[15] `REPT CSOP FMMV SYSTEM CALL FAILED`
`APPLY OMDB ABORTED`

2. REASON FOR OUTPUT

To report the result of executing an `APPLY:OMDB` input message.

3. VARIABLE FIELD DEFINITIONS

a = List of message keys for which the `APPLY:OMDB` completed successfully.

b = List of message keys for which the `APPLY:OMDB` failed, that is, these keys no longer exist in the OMDB disk file.

c = Logfile entry containing the syntax error.

d = File name of a temporary file that contains the original contents of the file `OMDB_LOG`.

e = Logfile that contains the update information for the OMDB.

4. ACTION TO BE TAKEN

For Format 1, the list of successful keys can be found in the file `/cft/cpl/OMDB_LOG`.

For Format 4, determine if the disk is available. If the disk is available, verify the status of the OMDB disk file by using the `OP:STATUS-LISTDIR` input message for `/cft/spl/omdb`.

Format 5 most likely results from direct manipulation of the logfile. The entry in error should be examined for the cause of the error, and if appropriate, the `UPD:OMDB` input message can be used to reapply that update with the corrected data. The format of each logfile entry is: a keyword indicating the type of update (either `ALARM` or `MSGCLS`), the new value for either the alarm level or the message class, and a list of keys for which the update had been performed.

Formats 6 and 7 indicate a possible file system problem, such as lack of available disk space.

For Format 8, verify that the coordinator of spooler output processes (CSOP) is running.

For Format 9, re-execute command. If `APPLY` fails again, seek technical assistance.

For Format 10, manually move file d to file e using the UNIX® command mv.

For Formats 11 and 12, re-execute command. If `APPLY` fails again, seek technical assistance.

Format 13 indicates a possible lack of disk space.

For Formats 14 and 15, re-execute command. If APPLY fails again, seek technical assistance.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 5.
Format 2 has an OMDB key of 2.
Format 3 has an OMDB key of 3.
Format 5 has an OMDB key of 8.
Format 6 has an OMDB key of 9.
Format 7 has an OMDB key of 10.
Format 8 has an OMDB key of 118.
Format 11 has an OMDB key of 642.
Format 12 has an OMDB key of 643.
Format 13 has an OMDB key of 644.
Format 14 has an OMDB key of 645.
Format 15 has an OMDB key of 646.

Input Messages

```
ACTV:OMDB
APPLY:OMDB
OP:OMDB
OP:ST;FRDISK
UPD:OMDB
```

ID . . . . . APPLY-OMDB-B
GENERIC . . . . . UNIX RTR R6.4, and R21.3
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has 12 formats.

[1] `APPLY OMDB COMPLETED`

[2]
```
APPLY OMDB COMPLETED
NO OMDB LOG FILE FOUND
```

[3]
```
APPLY OMDB NO DATABASE ENTRY FOUND FOR THE
FOLLOWING KEYS:
```
a

[4]
```
APPLY OMDB FAILED
UNABLE TO ACCESS /cft/spl/omdb
```

[5]
```
APPLY OMDB LOGFILE ERROR
ENTRY SKIPPED
```
b

[6]
```
APPLY OMDB CANNOT OPEN OR CREATE LOGFILE
UPDATE NOT LOGGED
```

[7]
```
APPLY OMDB ABORTED
UNABLE TO CREATE TEMP FILE
```

[8]
```
APPLY OMDB ABORTED
UNABLE TO SEND REQUEST TO CSOP
```

[9]
```
APPLY OMDB ABORTED
CANNOT ALLOCATE DISK SPACE FOR OMDB
```

[10]
```
APPLY OMDB ABORTED
CANNOT CREATE TEMPORARY OMDB
```

[11]
```
APPLY OMDB ABORTED
OMDB COPY FAILURE
```

[12]
```
APPLY OMDB ABORTED
CANNOT SWITCH COPIES OF OMDB
```

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2. REASON FOR OUTPUT

To report the result of executing an APPLY:OMDB input message. Format 1 indicates successful execution of the command. Formats 2, 3, 5, and 6 are warning messages. In some cases, updates may have taken place. All other formats indicate complete failure.

3. VARIABLE FIELD DEFINITIONS

a = List of message keys for which the APPLY:OMDB failed, that is, these keys no longer exist in the OMDB disk file.

b = Logfile entry containing the syntax error.

4. ACTION TO BE TAKEN

Format 1 indicates success; no action is required. However, the list of successful updates can be found in the file /cft/cpl/OMDB_LOG.

Format 2 indicates that no record of previous updates could be found. If no updates have been made to the OMDB previously, this message can be ignored. If previous updates have been made to the OMDB, seek technical assistance.

Format 3 indicates that some of the updates failed. This generally indicates that keys have been removed from the OMDB. Verify that the keys listed no longer exist using the OP:OMDB input message to examine the DISK copy of the OMDB. If the keys do not exist, the message can be ignored. If the keys do exist, seek technical assistance.

Format 4 indicates that the OMDB disk file could not be accessed. Seek technical assistance.

Format 5 most likely results from direct manipulation of the logfile. The entry in error should be examined for the cause of the error, and if appropriate, the UPD:OMDB input message can be used to reapply that update with the corrected data. The format of each logfile entry is: a keyword indicating the type of update (either ALARM or MSGCLS), the new value for either the alarm level or the message class, and a list of keys for which the update had been performed.

Formats 6 and 7 indicate a possible file system problem. Use the OP:STATUS:FREEDISK input message to check if the root file system is out of place. If the file system is out of place, clean up unused files and retry the command. If the file system is not out of space, seek technical assistance.

Format 8 indicates that the command could not send a message to the coordinator of spooler output processes (CSOP). Seek technical assistance.

Formats 9 through 12 indicate that CSOP could not make a new temporary copy of the OMDB for applying updates while the OMDB is in the temporary state. Seek technical assistance.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

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6. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 5.
Format 2 has an OMDB key of 2.
Format 3 has an OMDB key of 3.
Format 5 has an OMDB key of 8.
Format 6 has an OMDB key of 9.
Format 7 has an OMDB key of 10.
Format 8 has an OMDB key of 118.
Formats 9 - 12 have an OMDB key of 642.

Input Messages

```
ACTV:OMDB
APPLY:OMDB
OP:OMDB
UPD:OMDB
OP:ST;FRDISK
```

ID . . . . . APPLY-OMDB-C
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has 12 formats.

[1] `APPLY OMDB COMPLETED`

[2]
```
APPLY OMDB COMPLETED
NO OMDB LOG FILE FOUND
```

[3]
```
APPLY OMDB NO DATABASE ENTRY FOUND FOR THE
FOLLOWING KEYS:
```
a

[4]
```
APPLY OMDB FAILED
UNABLE TO ACCESS /cft/spl/omdb
```

[5]
```
APPLY OMDB LOGFILE ERROR
ENTRY SKIPPED
```
b

[6]
```
APPLY OMDB CANNOT OPEN OR CREATE LOGFILE
UPDATE NOT LOGGED
```

[7]
```
APPLY OMDB ABORTED
UNABLE TO CREATE TEMP FILE
```

[8]
```
APPLY OMDB ABORTED
UNABLE TO SEND REQUEST TO CSOP
```

[9]
```
APPLY OMDB ABORTED
CANNOT ALLOCATE DISK SPACE FOR OMDB
```

[10]
```
APPLY OMDB ABORTED
CANNOT CREATE TEMPORARY OMDB
```

[11]
```
APPLY OMDB ABORTED
OMDB COPY FAILURE
```

[12]
```
APPLY OMDB ABORTED
CANNOT SWITCH COPIES OF OMDB
```

SEE PROPRIETARY NOTICE ON COVER PAGE

2. REASON FOR OUTPUT

To report the result of executing an APPLY:OMDB input message. Format 1 indicates successful execution of the command. Formats 2, 3, 5, and 6 are warning messages. In some cases, updates may have taken place. All other formats indicate complete failure.

3. VARIABLE FIELD DEFINITIONS

a = List of message keys for which the APPLY:OMDB failed, that is, these keys no longer exist in the OMDB disk file.

b = Logfile entry containing the syntax error.

4. ACTION TO BE TAKEN

Format 1 indicates success; no action is required. However, the list of successful updates can be found in the file /cft/cpl/OMDB_LOG.

Format 2 indicates that no record of previous updates could be found. If no updates have been made to the OMDB previously, this message can be ignored. If previous updates have been made to the OMDB, seek technical assistance.

Format 3 indicates that some of the updates failed. This generally indicates that keys have been removed from the OMDB. Verify that the keys listed no longer exist using the OP:OMDB input message to examine the DISK copy of the OMDB. If the keys do not exist, the message can be ignored. If the keys do exist, seek technical assistance.

Format 4 indicates that the OMDB disk file could not be accessed. Seek technical assistance.

Format 5 most likely results from direct manipulation of the logfile. The entry in error should be examined for the cause of the error, and if appropriate, the UPD:OMDB input message can be used to reapply that update with the corrected data. The format of each logfile entry is: a keyword indicating the type of update (either ALARM or MSGCLS), the new value for either the alarm level or the message class, and a list of keys for which the update had been performed.

Formats 6 and 7 indicate a possible file system problem. Use the OP:STATUS:FREEDISK input message to check if the root file system is out of place. If the file system is out of place, clean up unused files and retry the command. If the file system is not out of space, seek technical assistance.

Format 8 indicates that the command could not send a message to the coordinator of spooler output processes (CSOP). Seek technical assistance.

Formats 9 through 12 indicate that CSOP could not make a new temporary copy of the OMDB for applying updates while the OMDB is in the temporary state. Seek technical assistance.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

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6. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 5.
Format 2 has an OMDB key of 2.
Format 3 has an OMDB key of 3.
Format 5 has an OMDB key of 8.
Format 6 has an OMDB key of 9.
Format 7 has an OMDB key of 10.
Format 8 has an OMDB key of 118.
Formats 9 - 12 have an OMDB key of 642.

Input Messages

```
ACTV:OMDB
APPLY:OMDB
OP:OMDB
UPD:OMDB
OP:ST;FRDISK
```

ID . . . . . AUD-CUMEM-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD CUMEM 1 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD CUMEM 1 STOPPED`

[3] `AUD CUMEM 1 ABORTED CODE` *c*

[4] `AUD CUMEM 1 ERROR` *d* {`CORR` | `NON CORR`} `REPORT`
{`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD CUMEM NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD CUMEM 1 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the cumem audit and/or any error found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System integrity monitor (SIM) could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.

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8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.

d = Error code, in decimal notation. Possible error codes are:

2 — Bad data in the equipment configuration data base (ECD) for a control unit (CU) unit or subunit.
4 — Could not access the ECD. Possibly a bad record identification number (RID).
6 — Maintenance channel failed.
8 — Could not read the offline mainstore.
10 — Call to the kconfig library failed.
12 — Erroneous major state for a CU unit or subunit.
14 — Bad online system status register (SSR) value.
16 — Bad offline SSR value.
18 — Bad online hardware status register (HSR) value.
20 — Bad offline HSR value.
24 — Plant measurements library call failed.
26 — Audit control library call failed.
28 — Internal CUMEM error.
30 — Offline store access failed.
32 — Internal error during memory compare.
34 — Memory mismatch mainstore error.
36 — Memory mismatch cache error.
38 — CUMEM tried to run, CUs not in active standby.

e = Audit test number that failed. If *d* = 30, 34, or 36, then this is the physical mainstore address at which the test failed.

Test Number	Description
0x2000	Memory audit did not complete its entire memory block comparison.
0x2001	Call to kconfig *rptrerr* unsuccessful.
0x2002	Call to kconfig *rptrerr* unsuccessful.
0x2003	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x2004	CUMEM called when offline CU was not standby.

f = Was error corrected.

1 — Yes.
15 — No.

g = Complemented offline SSR value (asserted = 1). If *d* = 30, 34, or 36, this field is not used and has value equal to 0.

h = Complemented online SSR value (asserted = 1). If *d* = 30, 34, or 36, this field is not used and has value equal to 0.

i = Explanation of error - see Audit Appendix C, AUD-APPC.

j = Explanation of error - see Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.

ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Audit Appendixes A and B, AUD-APPA and AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

Some of the faults reported will be corrected by PCPAUD. For others, manual actions are required to correct the problem. See the *System Maintenance Manual* for additional information on audits. The following table contains some possible actions to specific error codes. If the message persists, contact your next level of technical assistance.

Error Number:	Action:
4	Run the ECD 1 audit.
6	If the offline CU was not taken out of service, remove it. Diagnose it, repair it if necessary, and restore it. Then switch CUs and remove, diagnose, repair and restore the other CU.
8	The offline CU should have been removed automatically. Diagnose it, repair it if necessary, and restore it. Then switch CUs and remove, diagnose, repair, and restore the other CU.
24	Run the PMS 1 audit.
30	The offline CU should have been removed automatically. Diagnose it, repair it if necessary, and restore it. Then switch CUs and remove, diagnose, repair, and restore the other CU.

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34	If the offline CU was not taken out of service, remove it. Diagnose it, repair it if necessary, and restore it.
36	If the online CU was not taken out of service, switch CUs and remove it. Diagnose it, repair it if necessary, and restore it.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:CUMEM
OP:AUD
STOP:AUD
STP:AUD

Output Message
OP-AUD

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

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ID . . . . . AUD-CUMEM-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

TEST

This message has six formats.

[1] `AUD ENV=RTR CUMEM 1 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD ENV=RTR CUMEM 1 STOPPED`

[3] `AUD ENV=RTR CUMEM 1 ABORTED CODE` *c*

[4] `AUD ENV=RTR CUMEM 1 ERROR` *d* `{CORR | NON CORR} REPORT`
`{STARTED | IN PROGRESS | COMPLETED}`
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD CUMEM NOT STARTED`
`{CONFLICT WITH CURRENT SYSTEM STATUS` *i*
`|RETRY LATER` *j*
`|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*`}`

[6] `AUD ENV=RTR CUMEM 1 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the cumem audit and/or any error found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.

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5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.
8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.

d = Error code, in decimal notation. Possible error codes are:

2 — Bad data in the equipment configuration data base (ECD) for a control unit (CU) unit or subunit.
4 — Could not access the ECD. Possibly a bad record identification number (RID).
6 — Maintenance channel failed.
8 — Could not read the offline mainstore.
10 — Call to the kconfig library failed.
12 — Erroneous major state for a CU unit or subunit.
14 — Bad online system status register (SSR) value.
16 — Bad offline SSR value.
18 — Bad online hardware status register (HSR) value.
20 — Bad offline HSR value.
24 — Plant measurements library call failed.
26 — Audit control library call failed.
28 — Internal CUMEM error.
30 — Offline store access failed.
32 — Internal error during memory compare.
34 — Memory mismatch mainstore error.
36 — Memory mismatch cache error.
38 — CUMEM tried to run, CUs not in active standby.

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e = Audit test number that failed. If *d* = 30, 34, or 36, then this is the physical mainstore address at which the test failed.

Test Number	Description
0x2000	Memory audit did not complete its entire memory block comparison.
0x2001	Call to kconfig *rptrerr* unsuccessful.
0x2002	Call to kconfig *rptrerr* unsuccessful.
0x2003	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x2004	CUMEM called when offline CU was not standby.

f = Was error corrected.

1 — Yes.
15 — No.

g = Complemented offline SSR value (asserted = 1). If *d* = 30, 34, or 36, this field is not used and has value equal to 0.

h = Complemented online SSR value (asserted = 1). If *d* = 30, 34, or 36, this field is not used and has value equal to 0.

i = Explanation of error - see Audit Appendix C, AUD-APPC.

j = Explanation of error - see Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.

ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Audit Appendixes A and B, AUD-APPA and AUD-APPB, for assorted parsing errors when the IM catalog is not active.

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4. ACTION TO BE TAKEN

Some of the faults reported will be corrected by PCPAUD. For others, manual actions are required to correct the problem. See the *System Maintenance Manual* for additional information on audits. The following table contains some possible actions to specific error codes. If the message persists, contact your next level of technical assistance.

Error Number:	Action:
4	Run the ECD 1 audit.
6	If the offline CU was not taken out of service, remove it. Diagnose it, repair it if necessary, and restore it. Then switch CUs and remove, diagnose, repair and restore the other CU.
8	The offline CU should have been removed automatically. Diagnose it, repair it if necessary, and restore it. Then switch CUs and remove, diagnose, repair, and restore the other CU.
24	Run the PMS 1 audit.
30	The offline CU should have been removed automatically. Diagnose it, repair it if necessary, and restore it. Then switch CUs and remove, diagnose, repair, and restore the other CU.
34	If the offline CU was not taken out of service, remove it. Diagnose it, repair it if necessary, and restore it.
36	If the online CU was not taken out of service, switch CUs and remove it. Diagnose it, repair it if necessary, and restore it.

5. ALARMS

None.

6. REFERENCES

Output Appendixes
- AUD-APPA
- AUD-APPB
- AUD-APPC
- AUD-APPD

Input Messages
- AUD:CUMEM
- OP:AUD
- STOP:AUD
- STP:AUD

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Output Message
OP-AUD

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . AUD-CUSTAT-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD CUSTAT 1 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD CUSTAT 1 STOPPED`

[3] `AUD CUSTAT 1 ABORTED CODE` *c*

[4] `AUD CUSTAT 1 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD CUSTAT NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k}*

[6] `AUD CUSTAT 1 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the custat audit and/or any error found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System integrity monitor (SIM) could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.

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8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code in decimal notation. Possible error codes are:

2 — Bad data in the equipment configuration data base (ECD) for a CU unit or subunit.
4 — Could not access the ECD. Possibly a bad process identification (PID).
6 — Maintenance channel failed.
8 — Could not read the off-line mainstore.
10 — Call to the kconfig library failed.
12 — Erroneous major state for a CU unit or subunit.
14 — Bad on-line system status resister (SSR) value.
16 — Bad off-line SSR value.
18 — Bad on-line hardware status resister (HSR) value.
20 — Bad off-line HSR value.
24 — Plant measurements library call failed.
26 — Audit control library call failed.
28 — Internal CUSTAT error.
30 — Off-line store access failed.
32 — Internal error during memory compare.
34 — Memory mismatch mainstore error.
36 — Memory mismatch cache error.
38 — CUMEM tried to run, CUs not in active standby.
42 — EAI buffers mismatch.

e = Audit test number that failed. If *d* = 30, 34, or 36, then this is the physical mainstore address at which the test failed.

Test Number	Description
0x1000	RID for on-line CU is IDNULL.
0x1001	Call to ECD lla_rdget to get on-line CU UCB unsuccessful.
0x1002	On-line CU UCB indicates device type other than DEV_CU.
0x1003	RID for off-line CU is same as RID for on-line CU.
0x1004	Call to ECD lla_rdget to get off-line CU UCB unsuccessful.

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Test Number	Description *(continued)*
0x1005	Off-line CU UCB indicates device type other than DEV_CU.
0x1006	Call to ECD lla_rdget to get on-line CU minor device chain table (MDCT) unsuccessful.
0x1007	MDCT for the on-line CU has too many *m_minxt* entries. This would indicate that there are more than two CUs.
0x1008	MDCT for the on-line CU has too many *m_minxt* entries. This would indicate that there are more than two CUs.
0x1009	MDCT *m_minxt[0]* equals *m_minxt[1]* indicating that CU0 and CU1 have same RIDs.
0x100a	MDCT *m_minxt[0]* does not equal RID for on-line or off-line CU.
0x100b	MDCT *m_minxt[1]* does not equal RID for on-line or off-line CU.
0x1100	Maintenance channel (MCH) not functional.
0x1101	Off-line CU memory access failure; update circuit not functional.
0x1102	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x1103	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x1200	On-line CU UCB major state not active or init.
0x1201	Call to kconfig chgstate for on-line CU ACT unsuccessful.
0x1202	Off-line CU SSR (SSR_CC bit 19) indicates it is the on-line CU.
0x1203	Call to PCPAUD initofl to initialize off-line CU unsuccessful;
0x1204	Call to kconfig fltdrvr to remove other CU unsuccessful.

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Test Number	Description *(continued)*
0x1205	Off-line CU UCB major state active.
0x1206	Call to kconfig fltdrvr to remove other CU unsuccessful. Other CU UCB has major state of active.
0x1207	Simplex mode on-line CU SSR has force off-line (SSR_FOFL bit 9) asserted.
0x1208	On-line CU HSR bit 8 (backup maintenance channel bit) asserted.
0x1209	On-line CU HSR bit 8 or bit 9 (backup maintenance channel bits) asserted.
0x120a	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x120b	On-line CU SSR IO disable (SSR_DSAB bit 30) asserted.
0x120c	On-line CU SSR isolate DMA from MAS bus (SSR_ISOD bit 20) asserted.
0x120d	Off-line CU SSR initialization sequence control bits (SSR_ISC0 or SSR_ISC1 bits 4 and 5) asserted.
0x1300	On-line CU SSR is in enable update mode (SSR_UPD bit 19 asserted) but off-line CU SSR has isolate other (on-line) CU from main store bus (SSR_ISOU bit 21) asserted.
0x1301	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x1302	Off-line CU SSR is in enable update mode (SSR_UPD bit 19 asserted) or off-line CU SSR has isolate other (on-line) CU from main store bus (SSR_ISOU bit 21) asserted.
0x1303	Call to PCPAUD initofl to initialize off-line CU unsuccessful.
0x1304	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x1305	Simplex on-line CU SSR in enable update mode (SSR_UPD bit 19 asserted).

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Test Number	Description *(continued)*
0x1306	On-line CU SSR not isolating other (off-line) CU from its main store bus (SSR_ISOU bit 21 not asserted).
0x1307	3B21D CUs only: On-line CU SSR not isolating its expansion slots from its main store bus (SSR_ISOE bit 22 not asserted).
0x1308	3B21D CUs only: Off-line CU SSR not isolating its expansion slots from its main store bus (SSR_ISOE bit 22 not asserted).
0x1309	Call to init the off-line CU unsuccessful.
0x1400	On-line CU UCB not marked as updated.
0x1401	Call to ECD lla_rdget to get on-line CU UCB unsuccessful.
0x1402	Call to ECD lla_uprid to update on-line CU UCB to updated failed.
0x1403	Off-line CU UCB marked standby, but its UCB not marked updated or on-line CU SSR not in enable update mode (SSR_UPD bit 19 not asserted).
0x1404	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x1405	On-line CU SSR not in enable update mode (SSR_UPD bit 19 not asserted), but off-line CU UCB marked updated.
0x1406	Call to ECD chucb to update off-line CU UCBs to not updated unsuccessful.
0x1500	3B20D CUs only: Duplex configuration, but on-line CU SSR indicating simplex (SSR_SIDU bit 2 not asserted).
0x1501	3B20D CUs only: Same as 0x1500 except off-line CU SSR indicating simplex (SSR_SIDU bit 2 not asserted).
0x1502	Simplex configuration but on-line CU indicating duplex (SSR_SIDU bit 2 asserted).

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Test Number	Description *(continued)*
0x1503	Off-line CU SSR has force on-line (SSR-FONL bit 10) asserted.
0x1504	On-line CU SSR forced on-line (SSR_FONL bit 10) asserted, off-line CU SSR forced off-line (SSR_FONL bit 9) not asserted).
0x1505	On-line CU SSR forced on-line (SSR_FONL bit 10) not asserted, off-line CU SSR forced off-line (SSR_FOFL bit 9) asserted.
0x1506	Both CU SSRs indicate they are CU 1 (SSR_CCID bit 0 asserted).
0x1507	Both CU SSRs indicate they are CU 0 (SSR_CCID bit 0 not asserted).
0x1508	Off-line CU SSR has power clear (SSR_PCLR bit 15) asserted.
0x1509	Call to PCPAUD initofl to initialize off-line CU unsuccessful.
0x150a	Off-line CU has HSR bit 8, 9, or 31 asserted.
0x150b	Call to PCPAUD initofl to initialize off-line CU unsuccessful.
0x150c	Call to ECD *gnxt* unsuccessful in on-line CU UCB chain.
0x150d	Calls to ECD *gnxt* did not find a CC UCB (u_dtype=DEV_CC) in the on-line CU UCB chain.
0x150e	Call to ECD *gnxt* unsuccessful in off-line CU UCB chain.
0x150f	Calls to ECD *gnxt* did not find a CC UCB (u_dtype=DEV_CC) in the off-line CU UCB chain.
0x1510	On-line CU 1 CC 0 UCB does not have *u_opccid* (bit 4) asserted in *u_equip*.
0x1511	On-line CU 0 CC 0 UCB has *u_opccid* (bit 4) asserted in *u_equip*.
0x1512	Off-line CU 0 CC 0 UCB has *u_opccid* (bit 4) asserted in *u_equip*.

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Test Number	Description *(continued)*
0x1513	Off-line CU 1 CC 0 UCB does not have *u_opccid* (bit 4) asserted in *u_equip*.
0x1514	3B20D CUs only: Duplex configuration, but on-line CU CC 0 UCB specifying simplex (*u_opsimdup* bit 6 not asserted in *u_equip*).
0x1515	3B20D CUs only: Duplex configuration, but off-line CU CC 0 UCB specifying simplex (*u_opsimdup* bit 6 not asserted in *u_equip*).
0x1516	3B20D CUs only: Simplex configuration, but CU CC 0 UCB specifying duplex (*u_opsimdup* bit 6 asserted in *u_equip*).
0x1517	On-line CU SSR has power clear (SSR_PCLR bit 15) asserted.
0x1518	ECD access of the on-line MASC UCB failed. Call to ECD lla_rdget to get on-line CU MASC UCB unsuccessful.
0x1519	ECD access of the off-line MASC UCB failed. Call to ECD lla_rdget to get off-line CU MASC UCB unsuccessful.
0x151a	3B20D CUs only: On-line CU memory controller type indicators inconsistent between the SSR (SSR_VLMAS bit 1) and the MASC UCB.
0x151b	3B20D CUs only: Off-line CU memory controller type indicators inconsistent between the SSR (SSR_VLMAS bit 1) and the MASC UCB.
0x151c	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x1600	CU 0 and CU 1 EAI data buffers mismatch.
0x1601	Call to PCPAUD getoflipb to read off-line CU EAI IPB unsuccessful.

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Test Number	Description *(continued)*
0x2000	Memory comparison did not complete its entire memory block comparison.
0x2001	Call to kconfig *rptrerr* unsuccessful.
0x2002	Call to kconfig *rptrerr* unsuccessful.
0x2003	Call to kconfig *fltdrvr* to remove other CU unsuccessful.

f = Was error corrected?

`1` — Yes.

`15` — No.

g = Complemented off-line SSR value (asserted = 1). If *d* = `30`, `34`, or `36`, this field is not used and has value equal to `0`.

h = Complemented on-line SSR value (asserted = 1). If *d* = `30`, `34`, or `36`, this field is not used and has value equal to `0`.

i = Explanation of error - see Audit Appendix C, `AUD-APPC`.

j = Explanation of error - see Audit Appendix D, `AUD-APPD`.

NOTE: See Audit Appendixes A and B, `AUD-APPA` and `AUD-APPB`, for assorted parsing errors when the IM catalog is not active.

k = Explanation of error - see Audit Appendix B, `AUD-APPB`.

l = Inhibit status. Possible values are:

`INHIBITED` — Audit has been automatically inhibited by SIM.
`ALLOWED` — Audit has been automatically allowed by SIM.

4. ACTION TO BE TAKEN

Some of the faults reported will be corrected by PCPAUD. For others, manual actions are required to correct the problem. See the *System Maintenance Manual* for additional information on audits. The following table contains some possible actions to specific error codes. If the message persists, contact your next level of technical assistance.

Fault Type	Action
4	Run ECD 1 audit.
6	Check maintenance channel cable. Run CU diagnostics on the off-line CU. The problem could also be in the on-line CU maintenance channel. Switch CUs, run CU diagnostics. The problem is serious and should be taken care of as soon as possible.
8	Run CU diagnostics, switch CUs, run CU diagnostics.
14	Take action on this error only if it occurs repeatedly. Switch CUs, run CU diagnostics.
16	Take action on this error only if it occurs repeatedly. Run CU diagnostics.
18	Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited on-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.

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20	Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited off-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.
24	Run plant measurements system (PMS) 1 audit.
30	Run CU diagnostics, switch CUs, run CU diagnostics.
42	Clear the EAIs with a poke 14 on the EAI page of the MTTY. Take further action on this error only if it occurs repeatedly. Run CU diagnostics, switch CUs, run CU diagnostics.

5. ALARMS

None.

6. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

Output Appendixes

AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages

AUD:CUMEM
OP:AUD
STOP:AUD
STP:AUD

Output Message

OP-AUD

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

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ID . . . . . AUD-CUSTAT-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . AUDL

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR CUSTAT 1 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD ENV=RTR CUSTAT 1 STOPPED`

[3] `AUD ENV=RTR CUSTAT 1 ABORTED CODE` *c*

[4] `AUD ENV=RTR CUSTAT 1 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD CUSTAT NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD ENV=RTR CUSTAT 1 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the custat audit and/or any error found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.

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7 — Audit exceeded its timeout or segment limit.
8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code in decimal notation. Possible error codes are:

2 — Bad data in the equipment configuration data base (ECD) for a CU unit or subunit.
4 — Could not access the ECD. Possibly a bad process identification (PID).
6 — Maintenance channel failed.
8 — Could not read the off-line mainstore.
10 — Call to the kconfig library failed.
12 — Erroneous major state for a CU unit or subunit.
14 — Bad on-line system status resister (SSR) value.
16 — Bad off-line SSR value.
18 — Bad on-line hardware status resister (HSR) value.
20 — Bad off-line HSR value.
24 — Plant measurements library call failed.
26 — Audit control library call failed.
28 — Internal CUSTAT error.
30 — Off-line store access failed.
32 — Internal error during memory compare.
34 — Memory mismatch mainstore error.
36 — Memory mismatch cache error.
38 — CUMEM tried to run, CUs not in active standby.
42 — EAI buffers mismatch.
44 — SSR values inconsistent between CUs.

e = Audit test number that failed. If *d* = 30, 34, or 36, then this is the physical mainstore address at which the test failed.

Test Number	Description
0x1000	RID for on-line CU is IDNULL.
0x1001	Call to ECD *lla_rdget* to get on-line CU UCB unsuccessful.
0x1002	On-line CU UCB *u_dtype* (device type) not DEV_CU.

Test Number	Description
0x1003	RID for off-line CU is same as RID for on-line CU.
0x1004	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x1005	Off-line CU UCB *u_dtype* (device type) not DEV_CU.
0x1006	Call to ECD *lla_rdget* to get on-line CU minor device chain table (MDCT) unsuccessful.
0x1007	MDCT for the on-line CU has too many *m_minxt* entries. This would indicate that there are more than two CUs.
0x1008	MDCT for the on-line CU has too many *m_minxt* entries. This would indicate that there are more than two CUs.
0x1009	MDCT *m_minxt[0]* equals *m_minxt[1]* indicating that CU0 and CU1 have same RIDs.
0x100a	MDCT *m_minxt[0]* does not equal RID for on-line or off-line CU.
0x100b	MDCT *m_minxt[1]* does not equal RID for on-line or off-line CU.
0x1100	Maintenance channel (MCH) not functional.
0x1101	Off-line CU memory access failure; update circuit not functional.
0x1102	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x1103	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x1105	Maintenance channel (MCH) and update circuit not functional; but other CU UCB *u_stat* is STBY (standby).
0x1106	Call to kconfig *fltdrvr* to remove other CU unsuccessful.

Test Number	Description (*continued*)
0x1107	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to UNAV unsuccessful.
0x1108	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to UNAV unsuccessful.
0x1109	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x110b	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to ON unsuccessful.
0x110c	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to OOS unsuccessful.
0x110d	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to OFF unsuccessful.
0x110e	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x1200	On-line CU UCB *u_stat* not ACT (active) or INIT (initializing).
0x1201	Call to kconfig *chgstate* to change on-line CU UCB *u_stat* to ACT unsuccessful.
0x1202	Off-line CU SSR (SSR_CC bit 19) indicates it is the on-line CU.
0x1203	Call to PCPAUD *initofl* to initialize off-line CU unsuccessful.
0x1204	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x1205	Off-line CU UCB *u_stat* is ACT.
0x1206	Call to kconfig *fltdrvr* to remove other CU unsuccessful; Other CU UCB *u_stat* is ACT.
0x1207	Simplex mode on-line CU SSR has force off-line (SSR_FOFL bit 9) asserted.
0x1208	On-line CU HSR bit 8 (backup maintenance channel bit) asserted.

SEE PROPRIETARY NOTICE ON COVER PAGE

Test Number	Description (*continued*)
0x1209	On-line CU HSR bit 8 or bit 9 (backup maintenance channel bits) asserted.
0x120a	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x120b	On-line CU SSR IO disable (SSR_DSAB bit 30) asserted.
0x120c	On-line CU SSR isolate DMA from MAS bus (SSR_ISOD bit 20) asserted.
0x120d	Off-line CU SSR initialization sequence control bits (SSR_ISC0 or SSR_ISC1 bits 4 and 5) asserted.
0x1300	On-line CU SSR is in enable update mode (SSR_UPD bit 19 asserted) but off-line CU SSR has isolate other (on-line) CU from main store bus (SSR_ISOU bit 21) asserted.
0x1301	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x1302	Off-line CU SSR is in enable update mode (SSR_UPD bit 19 asserted) or off-line CU SSR has isolate other (on-line) CU from main store bus (SSR_ISOU bit 21) asserted.
0x1303	Call to PCPAUD *initofl* to initialize off-line CU unsuccessful.
0x1304	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x1305	Simplex on-line CU SSR in enable update mode (SSR_UPD bit 19 asserted).
0x1306	On-line CU SSR not isolating other (off-line) CU from its main store bus (SSR_ISOU bit 21 not asserted).
0x1307	3B21D CUs only: On-line CU SSR not isolating its expansion slots from its main store bus (SSR_ISOE bit 22 not asserted).

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Test Number	Description (*continued*)
0x1308	3B21D CUs only: Off-line CU SSR not isolating its expansion slots from its main store bus (SSR_ISOE bit 22 not asserted).
0x1309	Call to PCPAUD *initofl* to initialize off-line CU unsuccessful.
0x1400	On-line CU UCB *u_update* is OFF (not updated).
0x1401	Call to ECD *lla_rdget* to get on-line CU UCB unsuccessful.
0x1402	Call to ECD *lla_uprid* to change on-line CU UCB *u_update* to ON (updated) unsuccessful.
0x1403	Off-line CU UCB *u_stat* is STBY (standby), but off-line CU UCB *u_update* is OFF (not updated) or on-line CU SSR is not in enable update mode (SSR_UPD bit 19 not asserted).
0x1404	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x1405	On-line CU SSR not in enable update mode (SSR_UPD bit 19 not asserted), but off-line CU UCB *u_update* is ON (updated).
0x1406	Call to ECD *chucb* to change off-line CU UCBs *u_update* to OFF unsuccessful.
0x1500	3B20D CUs only: Duplex configuration, but on-line CU SSR indicating simplex (SSR_SIDU bit 2 not asserted).
0x1501	3B20D CUs only: Same as 0x1500 except off-line CU SSR indicating simplex (SSR_SIDU bit 2 not asserted).
0x1502	Simplex configuration but on-line CU indicating duplex (SSR_SIDU bit 2 asserted).
0x1503	Off-line CU SSR has force on-line (SSR-FONL bit 10) asserted.
0x1504	On-line CU SSR forced on-line (SSR_FONL bit 10) asserted, off-line CU SSR forced off-line (SSR_FONL bit 9) not asserted).

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Test Number	Description (*continued*)
0x1505	On-line CU SSR forced on-line (SSR_FONL bit 10) not asserted, off-line CU SSR forced off-line (SSR_FOFL bit 9) asserted.
0x1506	Both CU SSRs indicate they are CU 1 (SSR_CCID bit 0 asserted).
0x1507	Both CU SSRs indicate they are CU 0 (SSR_CCID bit 0 not asserted).
0x1508	Off-line CU SSR has power clear (SSR_PCLR bit 15) asserted.
0x1509	Call to PCPAUD *initofl* to initialize off-line CU unsuccessful.
0x150a	Off-line CU has HSR bit 8, 9, or 31 asserted.
0x150b	Call to PCPAUD *initofl* to initialize off-line CU unsuccessful.
0x150c	Call to ECD *gnxt* unsuccessful in on-line CU UCB chain.
0x150d	Calls to ECD *gnxt* did not find a CC UCB (*u_dtype*=DEV_CC) in the on-line CU UCB chain.
0x150e	Call to ECD *gnxt* unsuccessful in off-line CU UCB chain.
0x150f	Calls to ECD *gnxt* did not find a CC UCB (*u_dtype*=DEV_CC) in the off-line CU UCB chain.
0x1510	On-line CU 1 CC 0 UCB does not have *u_opccid* (bit 4) asserted in *u_equip*.
0x1511	On-line CU 0 CC 0 UCB has *u_opccid* (bit 4) asserted in *u_equip*.
0x1512	Off-line CU 0 CC 0 UCB has *u_opccid* (bit 4) asserted in *u_equip*.
0x1513	Off-line CU 1 CC 0 UCB does not have *u_opccid* (bit 4) asserted in *u_equip*.

SEE PROPRIETARY NOTICE ON COVER PAGE

Test Number	Description (*continued*)
0x1514	3B20D CUs only: Duplex configuration, but on-line CU CC 0 UCB specifying simplex (*u_opsimdup* bit 6 not asserted in *u_equip*).
0x1515	3B20D CUs only: Duplex configuration, but off-line CU CC 0 UCB specifying simplex (*u_opsimdup* bit 6 not asserted in *u_equip*).
0x1516	3B20D CUs only: Simplex configuration, but CU CC 0 UCB specifying duplex (*u_opsimdup* bit 6 asserted in *u_equip*).
0x1517	On-line CU SSR has power clear (SSR_PCLR bit 15) asserted.
0x1518	Call to ECD *lla_rdget* to get on-line CU MASC UCB unsuccessful.
0x1519	Call to ECD *lla_rdget* to get off-line CU MASC UCB unsuccessful.
0x151a	3B20D CUs only: On-line CU memory controller type indicators inconsistent between the SSR (SSR_VLMAS bit 1) and the MASC UCB.
0x151b	3B20D CUs only: Off-line CU memory controller type indicators inconsistent between the SSR (SSR_VLMAS bit 1) and the MASC UCB.
0x151c	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x151d	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x1600	CU 0 and CU 1 EAI data buffers mismatch.
0x1601	Call to PCPAUD *getoflipb* to read off-line CU EAI IPB (Initialization Parameter Buffer) unsuccessful.
0x2000	Memory comparison did not complete its entire memory block comparison.
0x2001	Call to kconfig *rptrerr* unsuccessful.
0x2002	Call to kconfig *rptrerr* unsuccessful.
0x2003	Call to kconfig *fltdrvr* to remove other CU unsuccessful.

f = Was error corrected?

1 — Yes.
15 — No.

g = Complemented off-line SSR value (asserted = 1). If *d* = 30, 34, or 36, this field is not used and has value equal to 0.

h = Complemented on-line SSR value (asserted = 1). If *d* = 30, 34, or 36, this field is not used and has value equal to 0.

i = Explanation of error - see Audit Appendix C, AUD-APPC.

j = Explanation of error - see Audit Appendix D, AUD-APPD.

NOTE: See Audit Appendixes A and B, AUD-APPA and AUD-APPB, for assorted parsing errors when the IM catalog is not active.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.

ALLOWED — Audit has been automatically allowed by SIM.

4. ACTION TO BE TAKEN

Some of the faults reported will be corrected by PCPAUD. For others, manual actions are required to correct the problem. See the *System Maintenance Manual* for additional information on audits. The following table contains some possible actions to specific error codes. If the message persists, contact your next level of technical assistance.

Fault Type	Action
4	Run ECD 1 audit.
6	Check maintenance channel cable. Run CU diagnostics on the off-line CU. The problem could also be in the on-line CU maintenance channel. Switch CUs, run CU diagnostics. The problem is serious and should be taken care of as soon as possible.
8	Run CU diagnostics, switch CUs, run CU diagnostics.

SEE PROPRIETARY NOTICE ON COVER PAGE

Fault Type	Action
14	Take action on this error only if it occurs repeatedly. Switch CUs, run CU diagnostics.
16	Take action on this error only if it occurs repeatedly. Run CU diagnostics.
18	Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited on-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.
4	Run ECD 1 audit.
20	Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited off-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.
24	Run plant measurements system (PMS) 1 audit.
30	Run CU diagnostics, switch CUs, run CU diagnostics.
42	Clear the EAIs with a poke 14 on the EAI page of the MTTY. Take further action on this error only if it occurs repeatedly. Run CU diagnostics, switch CUs, run CU diagnostics.
44	Take action on this error only if it occurs repeatedly. Either CU could cause inconsistent values between the SSRs. Run CU diagnostics, switch CUs, run CU diagnostics.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Appendixes
- AUD-APPA
- AUD-APPB
- AUD-APPC
- AUD-APPD

Input Messages
- AUD:CUMEM
- OP:AUD
- STOP:AUD
- STP:AUD

Output Message
- OP-AUD

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . AUD-ECD-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has seven formats.

[1] `AUD ECD` *a* [*b*] `COMPLETED`
c `ERRORS FOUND`
d `ERRORS CORRECTED`

[2] `AUD ECD` *a* [*b*] `STOPPED`

[3] `AUD ECD` *a* [*b*] `ABORTED CODE` *e*

[4] `AUD ECD` *a* [*b*] `ERROR` *f* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'00000000 DATA2 X'00000000`
`DATA3 X'00000000 DATA4 X'00000000`

`[NO SUPPLEMENTARY DATA]`

[5] `AUD ECD` *a* [*b*] `ERROR` *f* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
{`SUPPLEMENTARY DATA BLOCK NUMBER 1` |
`SUPPLEMENTARY DATA FILE`}
g

[6] `AUD ECD NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *h*
|`RETRY LATER` *i*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *j*}

[7] `AUD` *a* `AUTOMATICALLY` *k*

2. REASON FOR OUTPUT

To report the termination status of the equipment configuration data base (ECD) audit and / or any errors found.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

a = Audit member. One of the following:

1 — Structural incore ECD audit.
2 — Structural disk ECD audit.
3 — Raw data incore ECD audit.

b = Instance name (appears when *a* = 2).

ECD — DMERT only ECD.
APPECD — Application ECD.

c = Total number of errors found.

d = Total number of errors corrected.

e = Abort code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.
8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.

f = Error code. Possible error codes are:

(1-2999) — LLA structural error.
(3000-3999) — Fatal error.
(4000-4999) — Error.
(5000-5999) — Correction.

g = Explanation of error identified by error code. If error code is 1-2999, see the LLA-APP appendix in the Appendixes section of this manual. If error code is 3000-5999, see Table 1.

SEE PROPRIETARY NOTICE ON COVER PAGE

Table 1

f:	*g*:
3000	Cannot open incore ECD, errno = *x*.
3001	'malloc' failure, errno = *x*.
3001	'malloc' failure.
3002	Read failure for *z*, errno = *x*.
3002	Read failure for *z*.
3003	Incore ECD has fewer records than audit ECD, *z*.
3004	Incore ECD has more records than audit ECD, *z*.
3005	'lla_rdget' failure for incore ECD to check RCV semaphore.
3006	Recent change in progress.
3007	'lla_ainit' failure for structural audit.
3008	'lla_irel' failure for incore ECD.
3009	'lla_dbrel' failure for *z*.
3010	Cannot open disk ECD, *z*, errno = *x*.
3010	Cannot open disk ECD, *z*.
3011	'lla_nsqrid' failure for *z*.
3012	'getport' failure, errno = *x*.
3013	'getseg' failure, errno -*x*.
3014	'lla_iatt' failure for incore ECD.
3015	'lla_opensq' failure for incore ECD.
3016	Audit copy corrupted, z.
3017	Fopen failure for *z*, errno = *x*.
3017	Fopen failure for *z*.
3018	Fread failure for *z*, errno = *x*.
3018	Fread failure for *z*.
3019	Fseek failure for *z*, errno = *x*.
3019	Fseek failure for *z*.
3020	Fwrite failure for *z*, errno = *x*.
3020	Fwrite failure for *z*.
3021	The incore ECD does not match the disk ECD z.
3022	Driver PID notification table entries out of space.
3023	Unable to create segment because of insufficient swap space, or there is insufficient address space in the user's address space for the segment.
4000	'lla_rinfo' failure for *z*, RID = *y*.
4001	Incore RID does not match audit (*z*) RID.
4002	'lla_rdget' failure for *z*, RID = *y*.
4003	Record size of incore ECD does not match record size of audit *z*.

Table 1 *(continued)*

f:	*g*:
4004	Record type of incore does not match audit, *z*, RID = *y*.
4005	`'lla_uprid'` failure for *z*, RID = *y*.
4006	Local copy record changes: unable to notify driver, PID = *x*.
4007	Possible inconsistency (structure corrected) of disk ECD, *z*.
4008	Structural audit cannot continue without previous corrections.
4009	UCB *a b c d* points down to a UCB which does not point back up for *z*.
4010	UCB *a b c d* has incorrect UP0 pointer for its side chain for *z*.
4011	UCB *a b c d* has incorrect UP1 pointer for its side chain for *z*.
4012	UCB *a b c d* points down to the beginning of a side chain loop for *z*.
4013	UCB *a b c d* should not have a side pointer for *z*.
4014	UCB *a b c d* points down to itself for *z*.
5000	Record corrected, RID = *y*, record = *z*. Incore record data will be followed by audit record data.
5001	Record corrected, RID = *y*, record = *z*. Incore record data will be followed by audit record data. For *lla* audit error messages reference file *w*.

a = ucb complex unit
b = ucb unit
c = ucb complex unit
d = ucb name
w = file name one of the following:
/etc/log/ecdaud-disk - for disk audit
/etc/log/ecdaud-struc - for structural incore audit
/etc/log/ecdaud-raw - for raw audit
x = integer
y = hexadecimal integer
z = database name

h = Explanation of error - see Audit Appendix C, AUD-APPC.

i = Explanation of error - see Audit Appendix D, AUD-APPD, in the Appendixes section of this manual.

j = Explanation of error - see Audit Appendix B, AUD-APPB.

k = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

SEE PROPRIETARY NOTICE ON COVER PAGE

NOTE: See Audit Appendixes A and B, AUD-APPA and AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit was manually run in the noncorrecting mode and the output indicates that corrections are needed, rerun the audit in correcting mode.

Note that recent changes should not be applied while an audit that uses the ECD is running.

Seek technical assistance if errors occur.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB key of 64.

The following OMDB keys apply to the error codes listed in Table 1.

Error codes 3000, 3001, 3003, 3004, 3005, 3007, 3008, 3009, 3011, 3012, 3013, 3014, 3015, 3016, 3021, 3022, 4006, 4007, and 4008 have an OMDB key of 459.
Error codes 3002, 3010, 3017, 3018, 3019, and 3020 have an OMDB key of 458.
Error code 3021 has an OMDB key of 607.
Error codes 4000, 4002, 4004, and 4005 have an OMDB key of 457.
Error code 4001 has an OMDB key of 456.
Error code 4003 has an OMDB key of 455.
Error codes 4009, 4010, 4011, 4012, 4013, 4014 have an OMDB key of 617.
Error code 5000 has an OMDB key of 454.
Error code 5001 has OMDB keys of 454 and 459.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD
LLA-APP

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
AUD:ECD
OP:AUD
STOP:AUD
STP:AUD
```

Output Message

```
OP-AUD
```

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . AUD-ECD-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `AUD ENV=RTR ECD` *a* [*b*] `COMPLETED`
c `ERRORS FOUND`
d `ERRORS CORRECTED`

[2] `AUD ENV=RTR ECD` *a* [*b*] `STOPPED`

[3] `AUD ENV=RTR ECD` *a* [*b*] `ABORTED CODE` *e*

[4] `AUD ENV=RTR ECD` *a* [*b*] `ERROR` *f* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'00000000 DATA2 X'00000000`
`DATA3 X'00000000 DATA4 X'00000000`

`[NO SUPPLEMENTARY DATA]`

[5] `AUD ENV=RTR ECD` *a* [*b*] `ERROR` *f* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
{`SUPPLEMENTARY DATA BLOCK NUMBER 1` |
`SUPPLEMENTARY DATA FILE`}
g

[6] `AUD ECD NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *h*
|`RETRY LATER` *i*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *j*}

[7] `AUD ENV=RTR` *a* `AUTOMATICALLY` *k*

[8] `AUD ENV=RTR ECD ERROR` *f* - *g*

2. REASON FOR OUTPUT

To report the termination status of the equipment configuration data base (ECD) audit and / or any errors found.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. One of the following:

1 - Structural incore ECD audit.
2 - Structural disk ECD audit.
3 - Raw data incore ECD audit.

b = Instance name (appears only when *a* = 2).

`ECD` — DMERT only ECD.
`APPECD` — Application ECD.

c = Total number of errors found.

d = Total number of errors corrected.

e = Abort code. Possible values are:

`3` — Audit was aborted without completing its work.
`4` — Audit was faulted while correcting errors.
`5` — System integrity monitor (SIM) could not start or dispatch the audit.
`6` — An error was encountered in the audit control/audit library interface.
`7` — Audit exceeded its timeout or segment limit.
`8` — SIM aborted an executing routine audit because of a blocking request.
`9` — Transient process that was running the process terminated.
`10` — A segmented audit exceeded an error threshold.

f = Error code. Possible error codes are:

(`1-2999`) - LLA structural error.
(`3000-3999`) - Fatal error.
(`4000-4999`) - Error.
(`5000-5999`) - Correction.

g = Explanation of error identified by error code. If error code is `1-2999`, see the `LLA-APP` appendix in the Supplementary Information section of this manual. If error code is `3000-5999`, see Table 1 in this message.

SEE PROPRIETARY NOTICE ON COVER PAGE

Table 1

f:	*g*:
3000	Cannot open incore ECD, errno = *x*.
3001	'malloc' failure, errno = *x*.
3001	'malloc' failure.
3002	Read failure for *z*, errno = *x*.
3002	Read failure for *z*.
3003	Audit ECD *z* has more records than incore ECD.
3004	Incore ECD has more records than audit ECD *z*.
3005	'lla_rdget' failure for incore ECD to check RCV semaphore.
3006	Audits blocked during RCV session - try later.
3007	'lla_ainit' failure for structural audit.
3008	'lla_irel' failure for incore ECD.
3009	'lla_dbrel' failure for *z*.
3010	Cannot open disk ECD *z*, errno = *x*.
3010	Cannot open disk ECD *z*.
3011	'lla_nsqrid' failure for *z*.
3012	'getport' failure, errno = *x*.
3013	'getseg' failure, errno = *x*.
3014	'lla_iatt' failure for incore ECD.
3015	'lla_opensq' failure for incore ECD.
3016	Audit copy *z* corrupted.
3017	fopen failure for *z*, errno = *x*.
3017	fopen failure for *z*.
3018	fread failure for *z*, errno = *x*.
3018	fread failure for *z*.
3019	fseek failure for *z*, errno = *x*.
3019	fseek failure for *z*.
3020	fwrite failure for *z*, errno = *x*.
3020	fwrite failure for *z*.
3021	The incore ECD does not match the disk ECD *z*.
3022	Driver PID notification table out of space, entries = *x*.
3023	makeseg failure - cannot create new segment.
3024	Audits blocked during offline boot - try later.
4000	'lla_rinfo' failure for *z*, RID = *y*.
4001	Incore RID does not match audit (*z*) RID.
4002	'lla_rdget' failure for *z*, RID = *y*.
4003	Record size of incore ECD does not match record size of audit *z*.
4004	Record type of incore does not match audit *z*, RID = *y*.
4005	'lla_uprid' failure for *z*, RID = *y*.
4006	Local copy record changes: unable to notify driver, PID = *x*.
4007	Possible inconsistency (structure corrected) of disk ECD *z*.

Table 1 *(continued)*

f:	*g*:
4008	Structural audit cannot continue without previous corrections.
4009	UCB *a b c d* points down to a UCB which does not point back up for *z*.
4010	UCB *a b c d* has incorrect UP0 pointer for its side chain for *z*.
4011	UCB *a b c d* has incorrect UP1 pointer for its side chain for *z*.
4012	UCB *a b c d* points down to the beginning of a side chain loop for *z*.
4013	UCB *a b c d* should not have a side pointer for *z*.
4014	UCB *a b c d* points down to itself for *z*.
5000	Record corrected, RID = *y*, record = *z*. Incore record data will be followed by audit record data.
5001	Record needs correction, RID = *y*, record = *z*. Incore record data will be followed by audit record data. For LLA audit error messages reference file w.

a = UCB complex unit
b = UCB unit
c = UCB complex unit
d = UCB name
w = file name one of the following:
`/etc/log/ecdaud-disk` - for disk audit
`/etc/log/ecdaud-struc` - for structural incore audit
`/etc/log/ecdaud-raw-` for raw audit
x = integer
y = hexadecimal integer
z = database name

h = Explanation of error; see Audit Appendix C, `AUD-APPC`.

i = Explanation of error; see Audit Appendix D, `AUD-APPD`, in the Supplementary Information section of this manual.

j = Explanation of error - see Audit Appendix B, `AUD-APPB`.

k = Inhibit status. Possible values are:

`INHIBITED` — Audit has been automatically inhibited by SIM.
`ALLOWED` — Audit has been automatically allowed by SIM.

NOTE: See Audit Appendixes A and B, `AUD-APPA` and `AUD-APPB`, for assorted parsing errors when the IM catalog is not active.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

If the audit was manually run in the noncorrecting mode and the output indicates that corrections are needed, rerun the audit in correcting mode.

Note that recent changes should not be applied while an audit that uses the ECD is running.

Seek technical assistance if errors occur.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB key of 64.
Format 8 has an OMDB key of 720.

The following OMDB keys apply to the error codes listed in Table 1.

Error codes `3000`, `3001`, `3003`, `3004`, `3007`, `3008`, `3009`, `3011` through `3016`, `3022`, `4006`, `4007`, and `4008` have an OMDB key of 459.
Error codes `3002`, `3010`, and `3017` through `3020` have an OMDB key of 458.
Error code `3021` has an OMDB key of 607.
Error code `3024` has an OMDB key of 720.
Error codes `4000`, `4002`, `4004`, and `4005` have an OMDB key of 457.
Error code `4001` has an OMDB key of 456.
Error code `4003` has an OMDB key of 455.
Error codes `4009` through `4014` have an OMDB key of 619.
Error code `5000` has an OMDB key of 454.
Error code `5001` has OMDB keys of 454 and 459.

Output Appendixes
`AUD-APPA`
`AUD-APPB`
`AUD-APPC`
`AUD-APPD`
`LLA-APP`

Input Messages

```
AUD:ECD
OP:AUD
STOP:AUD
STP:AUD
```

Output Message

```
OP-AUD
```

Practice 254-341-235 *Audit Facilities Description 3B20D Model 2 Processor*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . AUD-ECDOWN-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has seven formats.

[1] `AUD ECDOWN 1 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD ECDOWN 1 STOPPED`

[3] `AUD ECDOWN 1 ABORTED CODE` *c*

[4] `AUD ECDOWN 1 ERROR` *d* `{CORR | NON CORR}`
`REPORT {STARTED | IN PROGRESS | COMPLETED}`
`DATA1 X'00000000 DATA2 X'00000000`
`DATA3 X'00000000 DATA4 X'00000000`

`[NO SUPPLEMENTARY DATA]`

[5] `AUD ECDOWN 1 ERROR` *d* `{CORR | NON CORR}`
`REPORT {STARTED | IN PROGRESS | COMPLETED}`
`{SUPPLEMENTARY DATA BLOCK NUMBER` *e* `|`
`SUPPLEMENTARY DATA FILE}`
f

[6] `AUD ECDOWN NOT STARTED`
`{CONFLICT WITH CURRENT SYSTEM STATUS` *g*
`|RETRY LATER` *h*
`|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *i*`}`

[7] `AUD ECDOWN 1 AUTOMATICALLY` *y*

2. REASON FOR OUTPUT

To report the termination status of the `ECDOWN` audit and/or any errors found.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.

SEE PROPRIETARY NOTICE ON COVER PAGE

5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.
8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Possible errors codes are:

Error (100-199)
Correction (200-200)

e = Supplementary data block number.

f = An explanation of the error identified by the error code. See Table 1.

Table 1

If *d* is...	Then *f* is...	And the OMDB Key is...
100	Unable to release special device file, RID = *x*.	460
101	Unable to release Unit Control Block (UCB), RID = *x*.	460
102	Improper reserved entity - not SDF or UCB.	460
200	Special device file released, RID = *x*.	460
201	UCB released, RID = *x*.	460
202	Special device file should be released, RID = *x*.	460
203	UCB should be released, RID = *x*.	460

NOTE: These error codes have an OMDB Key of 460.

g = Explanation of error - see the Output Audit Appendix C, AUD-APPC.

h = Explanation of error - see the Output Audit Appendix D, AUD-APPD.

i = Explanation of error - see Audit Appendix B, AUD-APPB.

x = Hexadecimal integer.

SEE PROPRIETARY NOTICE ON COVER PAGE

y = Inhibited status. Possible values are:

`INHIBITED` — Audit has been automatically inhibited by SIM.
`ALLOWED` — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, `AUD-APPA` and Output Audit Appendix B, `AUD-APPB`, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit was manually run in the noncorrecting mode and the output indicates that corrections are needed, rerun the audit in correcting mode.

Note that recent changes should not be applied while an audit that uses the ECD is running.

Seek technical assistance if errors occur.

5. ALARMS

None.

6. REFERENCES

OMDB Keys (UNIX® RTR R1 only)
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB Key of 64.
Format 7 has an OMDB key of 558.

Output Appendixes
`AUD-APPA`
`AUD-APPB`
`AUD-APPC`
`AUD-APPD`

Input Messages
`AUD:ECDOWN`
`OP:AUD`
`STOP:AUD`
`STP:AUD`

Output Message
`OP-AUD`

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ID . . . . . AUD-ECDOWN-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has seven formats.

[1] `AUD ENV=RTR ECDOWN 1 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD ENV=RTR ECDOWN 1 STOPPED`

[3] `AUD ENV=RTR ECDOWN 1 ABORTED CODE` *c*

[4] `AUD ENV=RTR ECDOWN 1 ERROR` *d* `{CORR | NON CORR}`
`REPORT {STARTED | IN PROGRESS | COMPLETED}`
`DATA1 X'00000000 DATA2 X'00000000`
`DATA3 X'00000000 DATA4 X'00000000`

`[NO SUPPLEMENTARY DATA]`

[5] `AUD ENV=RTR ECDOWN 1 ERROR` *d* `{CORR | NON CORR}`
`REPORT {STARTED | IN PROGRESS | COMPLETED}`
`{SUPPLEMENTARY DATA BLOCK NUMBER` *e* `|`
`SUPPLEMENTARY DATA FILE}`
f

[6] `AUD ECDOWN NOT STARTED`
`{CONFLICT WITH CURRENT SYSTEM STATUS` *g*
`|RETRY LATER` *h*
`|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *i*`}`

[7] `AUD ENV=RTR ECDOWN 1 AUTOMATICALLY` *y*

2. REASON FOR OUTPUT

To report the termination status of the `ECDOWN` audit and / or any errors found.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

SEE PROPRIETARY NOTICE ON COVER PAGE

c = Abort code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.
8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Possible errors codes are:

Error (100-199)
Correction (200-200)

e = Supplementary data block number.

f = An explanation of the error identified by the error code. See Table 1.

Table 1

If *d* is...	Then *f* means...
100	Unable to release special device file, RID = *x*.
101	Unable to release Unit Control Block (UCB), RID = *x*.
102	Improper reserved entity - not SDF or UCB.
200	Special device file released, RID = *x*.
201	UCB released, RID = *x*.
202	Special device file should be released, RID = *x*.
203	UCB should be released, RID = *x*.

NOTE: These error codes have an OMDB Key of 460.

g = Explanation of error - see the Output Audit Appendix C, AUD-APPC.

h = Explanation of error - see the Output Audit Appendix D, AUD-APPD.

i = Explanation of error - see Audit Appendix B, AUD-APPB.

SEE PROPRIETARY NOTICE ON COVER PAGE

x = Hexadecimal integer.

y = Inhibited status. Possible values are:

`INHIBITED` — Audit has been automatically inhibited by SIM.

`ALLOWED` — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, `AUD-APPA` and Output Audit Appendix B, `AUD-APPB`, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit was manually run in the noncorrecting mode and the output indicates that corrections are needed, rerun the audit in correcting mode.

Note that recent changes should not be applied while an audit that uses the ECD is running.

Seek technical assistance if errors occur.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB Key of 64.
Format 7 has an OMDB key of 558.

Output Appendixes
`AUD-APPA`
`AUD-APPB`
`AUD-APPC`
`AUD-APPD`

Input Messages
`AUD:ECDOWN`
`OP:AUD`
`STOP:AUD`
`STP:AUD`

Output Message
`OP-AUD`

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ID AUD-FMGR1-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD FMGR 1 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD FMGR 1 STOPPED`

[3] `AUD FMGR 1 ABORTED CODE` *c*

[4] `AUD FMGR 1 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 1 NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD FMGR 1 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the task queue audit (`FMGR 1`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.

SEE PROPRIETARY NOTICE ON COVER PAGE

8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Possible error codes are:

1 — Bad task status field.
2 — Invalid taskid field.
3 — Invalid sleep address.
4 — Invalid task stack pointer.
5 — Invalid message pointer.
6 — Task too old.
7 — Invalid task time stamp.

e = Address of the error: pointer to the task header information.

f = Erroneous data value.

g = Error index: used to identify the error.

h = Corrected data value.

i = Explanation of error - see Output Audit Appendix C, AUD-APPC.

j = Explanation of error - see Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 both have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Appendixes
- AUD-APPA
- AUD-APPB
- AUD-APPC
- AUD-APPD

Input Messages
- AUD:FMGR
- OP:AUD
- STOP:AUD
- STP:AUD

Output Message
- OP-AUD

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ID AUD-FMGR1-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR FMGR 1 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD ENV=RTR FMGR 1 STOPPED`

[3] `AUD ENV=RTR FMGR 1 ABORTED CODE` *c*

[4] `AUD ENV=RTR FMGR 1 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 1 NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD ENV=RTR FMGR 1 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the task queue audit (`FMGR 1`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System integrity monitor (SIM) could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.

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8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Possible error codes are:

2 — Invalid taskid field.
3 — Invalid sleep address.
4 — Invalid task stack pointer.
5 — Invalid message pointer.
6 — Task too old.
7 — Invalid task time stamp.

e = Address of the error: pointer to the task header information.

f = Erroneous data value.

g = Error index: used to identify the error.

h = Corrected data value.

i = Explanation of error - the Output Audit Appendix C, AUD-APPC.

j = Explanation of error - the Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 both have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Appendixes
- AUD-APPA
- AUD-APPB
- AUD-APPC
- AUD-APPD

Input Messages
- AUD:FMGR
- OP:AUD
- STOP:AUD
- STP:AUD

Output Message
- OP-AUD

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ID AUD-FMGR2-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD FMGR 2 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD FMGR 2 STOPPED`

[3] `AUD FMGR 2 ABORTED CODE` *c*

[4] `AUD FMGR 2 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 2 NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD FMGR 2 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the internal inode table audit (`FMGR 2`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System integrity monitor (SIM) could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.

SEE PROPRIETARY NOTICE ON COVER PAGE

8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Possible error codes are:

12 — Invalid reference count.
13 — Invalid write count.
14 — Invalid taskid.
15 — Invalid time stamp.
16 — DISK/INCORE inode mismatch.
17 — Invalid file table pointer.
19 — Invalid mount table pointer.
25 — Incorrect inode in use count.
26 — Invalid table size value.
27 — Bad degrow page start pointer.
28 — Invalid mount table or mount table pointer.

e = Address of the error: pointer to the inode table, block device table or character device table.

f = If d = 16, f = mdct-rid (minor device chain table record ID), otherwise, f = erroneous data.

g = Error index:

If *d* = *12*
g = 1, incorrect inode open count.
= 2, inode open count nonzero, but no corresponding file table exists.

If *d* = 16
g = *rstuvwwx*

r — 1, size field mismatch.
s — 1, group ID field mismatch.
t — 1, user id field mismatch.
u — 1, link field mismatch.
v — 1, inode field mismatch.
w — 0, not used.
x — 1-13, Nth address mismatch (1 - d in hex).

If *d* = 19
g = 1, invalid mount table pointer.

If *d* = 28
g = 1, invalid device pointer field inode.
g = 2, device pointer field in inode does not point to start of mount table.

SEE PROPRIETARY NOTICE ON COVER PAGE

g = 3, invalid mount table entry.

NOTE: The variable g is unused for all other values of variable d.

h = Corrected data value. Possible values depend on the value of d.

If *d* is...	Then *h* means...
12	Open count for the file table entry corresponding to the inode.
13	Inode reference count.
14	NULL.
15	Current system time.
16	Partition number inode number.
17	Correct file table pointer.
19	If g=1, valid mount table pointer (if one exists).
25 - 28	NULL.

i = Explanation of error - see Output Audit Appendix C, AUD-APPC.

j = Explanation of error - see Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see Output Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 both have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

Output Appendixes
- AUD-APPA
- AUD-APPB
- AUD-APPC
- AUD-APPD

Input Messages
- AUD:FMGR
- OP:AUD
- STOP:AUD
- STP:AUD

Output Message
- OP-AUD

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ID AUD-FMGR2-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR FMGR 2 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD ENV=RTR FMGR 2 STOPPED`

[3] `AUD ENV=RTR FMGR 2 ABORTED CODE` *c*

[4] `AUD ENV=RTR FMGR 2 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 2 NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD ENV=RTR FMGR 2 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the internal inode table audit (`FMGR 2`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System integrity monitor (SIM) could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.

SEE PROPRIETARY NOTICE ON COVER PAGE

8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Possible error codes are:

12 — Invalid reference count.
13 — Invalid write count.
14 — Invalid taskid.
15 — Invalid time stamp.
16 — DISK/INCORE inode mismatch.
17 — Invalid file table pointer.
19 — Invalid mount table pointer, or invalid inode flag.
25 — Incorrect inode in use count.
26 — Invalid table size value.
27 — Bad degrow page start pointer.
28 — Invalid mount table or mount table pointer.
92 — Open count for driver is incorrect.

e = Address of the error: pointer to the inode table, block device table or character device table.

f = If d = 16, f = mdct-rid (minor device chain table record ID), otherwise, f = erroneous data.

g = Error index:

If *d* = 12
g = 1, incorrect inode open count.
= 2, inode open count nonzero, but no corresponding file table exists.

If *d* = 16
g = *rstuvwwx*

r — 1, size field mismatch.
s — 1, group ID field mismatch.
t — 1, user id field mismatch.
u — 1, link field mismatch.
v — 1, mode field mismatch.
w — 0, not used.
x — 1-13, Nth address mismatch (1 - d in hex).

If *d* = 19
g = 0, invalid inode flag (i-flag).
g = 1, invalid mount table pointer.

SEE PROPRIETARY NOTICE ON COVER PAGE

If *d* = 28
g = 1, invalid device pointer field inode.
g = 2, device pointer field in inode does not point to start of mount table.
g = 3, invalid mount table entry.

NOTE: The variable g is unused for all other values of variable d.

If d = 92
g = 0, the block device table is incorrect.
g = 1, the character device table is incorrect.

h = Corrected data value. Possible values depend on the value of d.

If *d* is...	Then *h* means...
12	Open count for the file table entry corresponding to the inode.
13	Inode reference count.
14	NULL.
15	Current system time.
16	Partition number inode number.
17	Correct file table pointer.
19	If g=0, valid inode flag (i-flag). If g=1, valid mount table pointer (if one exists).
25 - 28	NULL.
92	Correct open count for driver.

i = Explanation of error - see the Output Audit Appendix C, AUD-APPC.

j = Explanation of error - see the Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see the Output Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 both have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD

Output Message
OP-AUD

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ID AUD-FMGR3-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD FMGR 3 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD FMGR 3 STOPPED`

[3] `AUD FMGR 3 ABORTED CODE` *c*

[4] `AUD FMGR 3 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 3 NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD FMGR 3 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the hash table and internal pointer table audit (`FMGR 3`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.

SEE PROPRIETARY NOTICE ON COVER PAGE

8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Possible error codes are:

21 — Invalid hash table entry.
22 — Invalid forward or backward ilist pointer.
23 — Invalid inode pointer.
24 — Invalid chain pointer.
26 — Invalid inode table size - Inotabsz.
27 — Invalid degrowth page marker.

e = Address of the error; pointer to the ilist table.

f = Erroneous data value.

g = Error index: used to identify the error.

If *d* is...	Then *g* means...
22	One of the following: 1 - Invalid free list chain. 2 - Invalid free list tail pointer. 3 - Invalid hash chain. 5 - Ilist entry not on any chain.

h = Corrected data value.

If *d* is...	Then *g* means...
21	Correct hash table entry.
22	Correct tail pointer.
23,24	NULL.
26	Correct inode table size.
27	Correct start of degrowth page.

i = Explanation of error - see the Output Audit Appendix C, AUD-APPC.

j = Explanation of error - see the Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD

Output Message
OP-AUD

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ID AUD-FMGR3-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR FMGR 3 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD ENV=RTR FMGR 3 STOPPED`

[3] `AUD ENV=RTR FMGR 3 ABORTED CODE` *c*

[4] `AUD ENV=RTR FMGR 3 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 3 NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD ENV=RTR FMGR 3 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the hash table and internal pointer table audit (`FMGR 3`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.

SEE PROPRIETARY NOTICE ON COVER PAGE

8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Possible error codes are:

21 — Invalid hash table entry.
22 — Invalid forward or backward ilist pointer.
24 — Invalid chain pointer.

e = Address of the error; pointer to the ilist table.

f = Erroneous data value.

g = Error index: used to identify the error.

If *d* is...	Then *g* means...
22	One of the following: 1 — Invalid free list chain. 2 — Invalid free list tail pointer. 3 — Invalid hash chain. 5 — Ilist entry not on any chain.

h = Corrected data value.

If *d* is...	Then *h* means...
21	Correct hash table entry.
22	Correct tail pointer.
24	NULL.

i = Explanation of error - see the Output Audit Appendix C, AUD-APPC.

j = Explanation of error - see the Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.

ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD

Output Message
OP-AUD

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ID AUD-FMGR4-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD FMGR 4 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD FMGR 4 STOPPED`

[3] `AUD FMGR 4 ABORTED CODE` *c*

[4] `AUD FMGR 4 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 4 NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD FMGR 4 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the file table audit (`FMGR 4`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.

SEE PROPRIETARY NOTICE ON COVER PAGE

8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being initialized.

d = Error code. Possible error codes are:

26 — Invalid file table size - `Filtabsz`.
27 — Invalid degrowth page marker.
31 — Invalid flag field.
32 — Invalid pointer to associated incore inode table entry.
33 — Invalid pointer to associated internal capability table entry.
34 — Invalid pointer to the next file table entry on the chain.
35 — Invalid taskid.
36 — Use count of open files does not match the number of associated capabilities.
39 — Incorrect count of file table entries currently in use - `Nfile`.
40 — Invalid free list.
90 — Invalid file table size - `Filtabsz`.
91 — Invalid degrowth page marker.

e = Address of the error: pointer to the file table entry.

f = Erroneous data value.

g = Error index: used to identify the error.

If *d* is...	And *g* is...	Then the...
36	1	Associated capability table chain is bad.
	2	Use count is incorrect.
40	1	Free chain is broken or looped.
	2	Non-free entry is on free chain.
	3	Free entry is not on chain.
	4	Tail pointer is invalid.

SEE PROPRIETARY NOTICE ON COVER PAGE

h = Corrected data value.

If *d* is...	Then *h* means...
26	Correct file table size.
27	Correct start of degrowth page.
31	Flag field.
32	Valid inode pointer (if one exists).
33	Valid capability table entry (if one exists).
34	Pointer to the next file table entry on its chain.
35	NULL.
36	If 'g' = 1, the capability table must be audited and then the file table re-audited.
39	Correct number of file table slots in use.
40	NULL.
90	Correct file table size.
91	Correct start of degrowth page.
	If *g* = 2, *h* = the correct use count.

i = Explanation of error - see the Output Audit Appendix C, AUD-APPC.

j = Explanation of error - see the Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode.

If *d* = 33 or 36, run the capability table audit.

5. ALARMS

None.

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6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD

Output Message
OP-AUD

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ID AUD-FMGR4-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR FMGR 4 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD ENV=RTR FMGR 4 STOPPED`

[3] `AUD ENV=RTR FMGR 4 ABORTED CODE` *c*

[4] `AUD ENV=RTR FMGR 4 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 4 NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD ENV=RTR FMGR 4 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the file table audit (`FMGR 4`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.

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8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being initialized.

d = Error code. Possible error codes are:

31 — Invalid flag field.
32 — Invalid pointer to associated incore inode table entry.
33 — Invalid pointer to associated internal capability table entry.
34 — Invalid pointer to the next file table entry on the chain.
35 — Invalid taskid.
36 — Use count of open files does not match the number of associated capabilities.
39 — Incorrect count of file table entries currently in use - `Nfile`.
40 — Invalid free list.
90 — Invalid file table size - `Filtabsz`.
91 — Invalid degrowth page marker.

e = Address of the error: pointer to the file table entry.

f = Erroneous data value.

g = Error index: used to identify the error.

If *d* is...	And *g* is...	Then the...
36	1	Associated capability table chain is bad.
	2	Use count is incorrect.
40	1	Free chain broken or looped.
	2	Non-free entry on free chain.
	3	Free entry not on chain.
	4	Invalid tail pointer.

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h = Corrected data value.

If *d* is...	Then *h* means...
31	Flag field.
32	Valid inode pointer (if one exists).
33	Valid capability table entry (if one exists).
34	Pointer to the next file table entry on its chain.
35	NULL.
36	If *g* = 1, the capability table must be audited and then the file table re-audited.
39	Correct number of file table slots in use.
40	NULL.
90	Correct file table size.
91	Correct start of degrowth page.
	If *g* = 2, *h* = the correct use count.

i = Explanation of error - see the Output Audit Appendix C, AUD-APPC.

j = Explanation of error - see the Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.

ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

If *d* = 33 or 36, run the capability table audit.

5. ALARMS

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD

Output Message
OP-AUD

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ID AUD-FMGR5-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD FMGR 5 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD FMGR 5 STOPPED`

[3] `AUD FMGR 5 ABORTED CODE` *c*

[4] `AUD FMGR 5 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 5 NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD FMGR 5 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the internal capability table audit (`FMGR 5`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System integrity monitor (SIM) could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.

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8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted the executing audit because the audit system is being reinitialized.

d = Error code. Possible error codes are:

26 — Incorrect capability table size.
27 — Incorrect degrowth page marker.
41 — Nonexistent process.
42 — Invalid file table pointer.
43 — Invalid pointer to the next capability table entry on the chain.
44 — Invalid capability pointer in file table entry.
45 — Invalid capability chain.
46 — Incorrect count of capability table entries currently in use - Ncap.
47 — Invalid free list.
48 — Incorrect capability table size.
49 — Incorrect degrowth page marker.

e = Address of the error: pointer to the file table entry.

f = Erroneous data value.

g = Error index: used to identify the error.

If *d* is...	And *g* is...	Then the...
44	1	Value when error is not corrected.
	2	File table entry's capability pointer restored.
	3	File table entry not in use - capability removed.
47	1	Free chain broken or looped.
	2	Non-free entry on free chain.
	3	Free entry not on chain.
	4	Invalid tail pointer.

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h = Corrected data value.

If *d* is...	*h* means...
26	Correct capability table size.
27	Correct start of degrowth page.
41	NULL.
42	Pointer to the file table entry associated with this capability.
43	Pointer to the next capability table entry on the chain.
44	Current value of file table entry's capability pointer.
45	Next entry on capability chain.
46	Correct number of capability entries currently in use.
47	NULL.
48	Correct capability table size.
49	Correct start of degrowth page.

i = Explanation of error - see the Output Audit Appendix C, AUD-APPC.

j = Explanation of error - see the Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode.

In addition, run the file table audit.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD

Output Message
OP-AUD

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ID AUD-FMGR5-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR FMGR 5 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD ENV=RTR FMGR 5 STOPPED`

[3] `AUD ENV=RTR FMGR 5 ABORTED CODE` *c*

[4] `AUD ENV=RTR FMGR 5 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 5 NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD ENV=RTR FMGR 5 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the internal capability table audit (`FMGR 5`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System integrity monitor (SIM) could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.

8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted the executing audit because the audit system is being reinitialized.

d = Error code. Possible error codes are:

41 — Nonexistent process.
42 — Invalid file table pointer.
43 — Invalid pointer to the next capability table entry on the chain.
44 — Invalid capability pointer in file table entry.
45 — Invalid capability chain.
46 — Incorrect count of capability table entries currently in use - Ncap.
47 — Invalid free list.
48 — Incorrect capability table size.
49 — Incorrect degrowth page marker.

e = Address of the error: pointer to the file table entry.

f = Erroneous data value.

g = Error index: used to identify the error.

If *d* is...	And *g* is...	Then the...
44	1	Value when error is not corrected.
	2	File table entry's capability pointer restored.
	3	File table entry not in use - capability removed.
47	1	Free chain broken or looped.
	2	Non-free entry on free chain.
	3	Free entry not on chain.
	4	Invalid tail pointer.

SEE PROPRIETARY NOTICE ON COVER PAGE

h = Corrected data value.

If *d* is...	Then *h* means...
41	NULL.
42	Pointer to the file table entry associated with this capability.
43	Pointer to the next capability table entry on the chain.
44	Current value of file table entry's capability pointer.
45	Next entry on capability chain.
46	Correct number of capability entries currently in use.
47	NULL.
48	Correct capability table size.
49	Correct start of degrowth page.

i = Explanation of error - see the Output Audit Appendix C, AUD-APPC.

j = Explanation of error - see the Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.

ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode.

In addition, run the file table audit.

NOTE: If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD

Output Message
OP-AUD

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ID AUD-FMGR5-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR FMGR 5 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD ENV=RTR FMGR 5 STOPPED`

[3] `AUD ENV=RTR FMGR 5 ABORTED CODE` *c*

[4] `AUD ENV=RTR FMGR 5 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 5 NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD ENV=RTR FMGR 5 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the internal capability table audit (`FMGR 5`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System integrity monitor (SIM) could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.

SEE PROPRIETARY NOTICE ON COVER PAGE

8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted the executing audit because the audit system is being reinitialized.

d = Error code. Possible error codes are:

41 — Nonexistent process.
42 — Invalid file table pointer.
43 — Invalid pointer to the next capability table entry on the chain.
44 — Invalid capability pointer in file table entry.
45 — Invalid capability chain.
46 — Incorrect count of capability table entries currently in use - Ncap.
47 — Invalid free list.
48 — Incorrect capability table size.
49 — Incorrect degrowth page marker.

e = Address of the error: pointer to the file table entry.

f = Erroneous data value.

g = Error index: used to identify the error. Index is zero unless listed.

If *d* is...	And *g* is...	Then the...
44	1	Value when error is not corrected.
	2	File table entry's capability pointer restored.
	3	File table entry not in use - capability removed.
47	1	Free chain broken or looped.
	2	Non-free entry on free chain.
	3	Free entry not on chain.
	4	Invalid tail pointer.

SEE PROPRIETARY NOTICE ON COVER PAGE

h = Corrected data value if correcting audit.

If *d* is...	Then *h* means...
41	NULL.
42	Pointer to the file table entry associated with this capability.
43	Pointer to the next capability table entry on the chain.
44	Current value of file table entry's capability pointer.
45	Next entry on capability chain.
46	Correct number of capability entries currently in use.
47	NULL.
48	Correct capability table size.
49	Correct start of degrowth page.

i = For explanation of error, the Output Audit Appendix C, AUD-APPC.

j = For explanation of error, the Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode.

In addition, run the file table audit.

NOTE: If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD

Output Message
OP-AUD

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CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID AUD-FMGR6-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD FMGR 6 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD FMGR 6 STOPPED`

[3] `AUD FMGR 6 ABORTED CODE` *c*

[4] `AUD FMGR 6 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 6 NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD FMGR 6 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the buffer audit (`FMGR 6`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.

SEE PROPRIETARY NOTICE ON COVER PAGE

8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Possible error codes are:

51 — Free list chain is broken.
52 — Device chain is broken.
54 — Invalid free list chain pointer.
55 — Invalid device chain pointer.
56 — Invalid buffer pointer.
57 — Invalid mount table pointer.
58 — Invalid taskid.
59 — Buffer is too old.
60 — Invalid time stamp.
61 — Invalid taskid / ilock combination.
62 — Invalid taskid / flock combination.

e = Address of the error: pointer to the file table entry.

f = Erroneous data value.

SEE PROPRIETARY NOTICE ON COVER PAGE

g = Error index: used to identify the error.

If *d* is...	Then *g* means...
51	One of the following: 1 — Forward chain is bad. 2 — Backward chain is bad.
52	One of the following: 1 — Buf's forward device chain is broken. 2 — Buf's backward device chain is broken. 3 — Bdevtab's forward device chain is broken. 4 — Bdevtab's backward device chain is broken.
54	One of the following: 1 — Forward chain pointer is bad. 2 — Backward chain pointer is bad. 3 — Both chain pointers are bad.
55	One of the following: 4 — Forward chain pointer is bad. 8 — Backward chain pointer is bad. c — Both chain pointers are bad. Any value greater than X'c reflects the number of forward or backward chain errors.
57	One of the following: 1 — Mount chain is bad. 2 — Invalid flag / mount pointer combination.

SEE PROPRIETARY NOTICE ON COVER PAGE

h = Corrected data value. Possible values depend on the value of *d*.

If *d* is...	Then *h* means...
51 - 52	NULL.
54 - 55	Pointer to itself (this problem will be repaired later in the audit).

If *e* is...	Then *i* means...
56	Correct buffer pointer.
57	If *g* = 1, pointer to mount table, if any, associated with the buffer, or it is NULL. *i* = mount table pointer. If *g* = 2, NULL, *i* = NULL.
58 - 59	NULL.
60 - 61	Current system time.
62	NULL.

i = Explanation of error - see the Output Audit Appendix C, AUD-APPC.

j = Explanation of error - see the Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD

Output Message
OP-AUD

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ID AUD-FMGR6-B
GENERIC . . . . . UNIX RTR R6.4, R21.11, R21.15 thru R21.27
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR FMGR 6 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD ENV=RTR FMGR 6 STOPPED`

[3] `AUD ENV=RTR FMGR 6 ABORTED CODE` *c*

[4] `AUD ENV=RTR FMGR 6 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 6 NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD ENV=RTR FMGR 6 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the buffer audit (`FMGR 6`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.

SEE PROPRIETARY NOTICE ON COVER PAGE

8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Possible error codes are:

51 — Free list chain is broken.
52 — Device chain is broken.
54 — Invalid free list chain pointer.
55 — Invalid device chain pointer.
56 — Invalid buffer pointer.
57 — Invalid mount table pointer.
58 — Invalid taskid.
59 — Buffer is too old.
60 — Invalid time stamp.
61 — Invalid taskid / ilock combination.
62 — Invalid taskid / flock combination.

e = Address of the error: pointer to the file table entry.

f = Erroneous data value.

SEE PROPRIETARY NOTICE ON COVER PAGE

g = Error index: used to identify the error.

If *d* is...	Then *g* means...
51	One of the following: 1 — Forward chain is bad. 2 — Backward chain is bad.
52	One of the following: 1 — Buf's forward device chain is broken. 2 — Buf's backward device chain is broken. 3 — Bdevtab's forward device chain is broken. 4 — Bdevtab's backward device chain is broken.
54	One of the following: 1 — Forward chain pointer is bad. 2 — Backward chain pointer is bad. 3 — Both chain pointers are bad.
55	One of the following: 4 — Forward chain pointer is bad. 8 — Backward chain pointer is bad. c — Both chain pointers are bad. Any value greater than X'c reflects the number of forward or backward chain errors.
57	One of the following: 1 — Mount chain is bad. 2 — Invalid flag / mount pointer combination.

SEE PROPRIETARY NOTICE ON COVER PAGE

h = Corrected data value. Possible values depend on the value of *d*.

If *d* is...	Then *h* means...
51 - 52	NULL.
54 - 55	Pointer to itself (this problem will be repaired later in the audit).
56	Correct buffer pointer.
57	If *g* = 1, pointer to mount table, if any, associated with the buffer, or it is NULL. i = mount table pointer. If g = 2, NULL, i = NULL.

If *e* is...	Then *i* means...
58	NULL.
59 - 60	Current system time.
61 - 62	NULL.

i = Explanation of error - see the Output Audit Appendix C, AUD-APPC.

j = Explanation of error - see the Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD

Output Message
OP-AUD

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ID AUD-FMGR6-C
GENERIC . . . . . UNIX RTR R21.3, R21.29 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR FMGR 6 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD ENV=RTR FMGR 6 STOPPED`

[3] `AUD ENV=RTR FMGR 6 ABORTED CODE` *c*

[4] `AUD ENV=RTR FMGR 6 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 6 NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD ENV=RTR FMGR 6 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the buffer audit (`FMGR 6`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System integrity monitor (SIM) could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.

SEE PROPRIETARY NOTICE ON COVER PAGE

8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Possible error codes are:

51 — Free list chain is broken.
52 — Device chain is broken.
54 — Invalid free list chain pointer.
55 — Invalid device chain pointer.
56 — Invalid buffer pointer.
57 — Invalid mount table pointer.
58 — Invalid taskid.
59 — Buffer is too old.
60 — Invalid time stamp.
61 — Invalid taskid / ilock combination.
62 — Invalid taskid / flock combination.
64 — Invalid total number of free inodes.

e = Address of the error:

If *d* is...	Then *e* means...
51 to 60	pointer to the file table entry.
61 to 64	pointer to the superblock.

f = Erroneous data value.

g = Error index: used to identify the error.

If *d* is...	Then *g* means...
51	One of the following: 1 — Forward chain is bad. 2 — Backward chain is bad.
52	One of the following: 1 — Buf's forward device chain is broken. 2 — Buf's backward device chain is broken. 3 — Bdevtab's forward device chain is broken. 4 — Bdevtab's backward device chain is broken.
54	One of the following: 1 — Forward chain pointer is bad. 2 — Backward chain pointer is bad. 3 — Both chain pointers are bad.
55	One of the following: 4 — Forward chain pointer is bad. 8 — Backward chain pointer is bad. c — Both chain pointers are bad. Any value greater than X'c reflects the number of forward or backward chain errors.
57	One of the following: 1 — Mount chain is bad. 2 — Invalid flag / mount pointer combination.
64	Offset in superblock to s_tinode

SEE PROPRIETARY NOTICE ON COVER PAGE

h = Corrected data value. Possible values depend on the value of *d*.

If *d* is...	Then *h* means...
51 - 52	NULL.
54 - 55	Pointer to itself (this problem will be repaired later in the audit).
56	Correct buffer pointer.
57	If *g* = 1, pointer to mount table, if any, associated with the buffer, or it is NULL. i = mount table pointer. If g = 2, NULL, i = NULL.
64	Correct Total Number of Free Inodes

If *e* is...	Then *i* means...
58	NULL.
59 - 60	Current system time.
61 - 62	NULL.

i = Explanation of error - see the Output Audit Appendix C, AUD-APPC.

j = Explanation of error - see the Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD

Output Message
OP-AUD

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ID AUD-FMGR7-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD FMGR 7 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD FMGR 7 STOPPED`

[3] `AUD FMGR 7 ABORTED CODE` *c*

[4] `AUD FMGR 7 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 7 NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD FMGR 7 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the mount table audit (`FMGR 7`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.

8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Possible error codes are:

71 — Invalid device name.
72 — Buf error.
74 — Inode error.
75 — Invalid inode.
77 — Invalid taskid.

e = Address of the error: pointer to the mount table entry.

f = Erroneous data value.

g = Error index: used to identify the error.

If *d* is...	Then *g* means...
72	One of the following: 1 — Buf table entry associated with the mount table does not have the B_MOUNT flag set. 2 — Invalid buf pointer.
73	One of the following: 1 — Inode table entry associated with the mount table does not have the I_MOUNT flag set. 2 — Invalid inode pointer.

h = Corrected data value.

If *d* is...	Then *h* means...
72	If *g* = 1, *h* = flags field of the associated buf table entry. If *g* = 2, *h* = pointer to the associated buf table entry.
74	If *g* = 1, *h* = flags field of the associated inode table entry. If *g* = 2, *h* = pointer to the associated inode table entry.
75	Pointer to the root inode.
77	NULL.

i = Explanation of error - see the Output Audit Appendix C, AUD-APPC.

j = Explanation of error - see the Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.

ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Appendixes
- AUD-APPA
- AUD-APPB
- AUD-APPC
- AUD-APPD

Input Messages
- AUD:FMGR
- OP:AUD
- STOP:AUD
- STP:AUD

Output Message
- OP-AUD

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ID AUD-FMGR7-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR FMGR 7 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD ENV=RTR FMGR 7 STOPPED`

[3] `AUD ENV=RTR FMGR 7 ABORTED CODE` *c*

[4] `AUD ENV=RTR FMGR 7 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 7 NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD ENV=RTR FMGR 7 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the mount table audit (`FMGR 7`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System integrity monitor (SIM) could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.

SEE PROPRIETARY NOTICE ON COVER PAGE

8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Possible error codes are:

72 — Buffer error.
74 — Inode error.
75 — Invalid inode.
77 — Invalid taskid.

e = Address of the error: pointer to the mount table entry.

f = Erroneous data value.

g = Error index: used to identify the error.

If *d* is...	Then *g* means...
72	One of the following: 1 — Buf table entry associated with the mount table does not have the B_MOUNT flag set. 2 — Invalid buf pointer.
74	One of the following: 1 — Inode table entry associated with the mount table does not have the I_MOUNT flag set. 2 — Invalid inode pointer.

h = Corrected data value.

If *d* is...	Then *h* means...
72	If *g* = 1, *h* = flags field of the associated buf table entry. If *g* = 2, *h* = pointer to the associated buf table entry.
74	If *g* = 1, *h* = flags field of the associated inode table entry. If *g* = 2, *h* = pointer to the associated inode table entry.
75	Pointer to the root inode.
77	NULL.

i = Explanation of error - see the Output Audit Appendix C, AUD-APPC.

j = Explanation of error - see the Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Appendixes
- AUD-APPA
- AUD-APPB
- AUD-APPC
- AUD-APPD

Input Messages
- AUD:FMGR
- OP:AUD
- STOP:AUD
- STP:AUD

Output Message
- OP-AUD

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ID AUD-FMGR8-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD FMGR 8 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD FMGR 8 STOPPED`

[3] `AUD FMGR 8 ABORTED CODE` *c*

[4] `AUD FMGR 8 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 8 NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD FMGR 8 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the delayed queue audit (`FMGR 8`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System integrity monitor (SIM) could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.

8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Possible error codes are:

82 — The number of delayed open requests is bad.
83 — The number of delayed mount requests is bad.

e = Address of the error: pointer to the `mount_q` table or the `open_q` table.

f = Erroneous data value.

g = Error index: used to identify the error.

h = Corrected data value.

If *d* =	Then *h* =
82	Correct number of delayed open requests.
83	Correct number of delayed mount requests.

i = Explanation of error - see the Output Audit Appendix C, `AUD-APPC`.

j = Explanation of error - see the Output Audit Appendix D, `AUD-APPD`.

k = Explanation of error - see Audit Appendix B, `AUD-APPB`.

l = Inhibit status. Possible values are:

`INHIBITED` — Audit has been automatically inhibited by SIM.
`ALLOWED` — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, `AUD-APPA`, and Output Audit Appendix B, `AUD-APPB`, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD

Output Message
OP-AUD

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ID AUD-FMGR8-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR FMGR 8 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD ENV=RTR FMGR 8 STOPPED`

[3] `AUD ENV=RTR FMGR 8 ABORTED CODE` *c*

[4] `AUD ENV=RTR FMGR 8 ERROR` *d* `{CORR | NON CORR}`
`REPORT {STARTED | IN PROGRESS | COMPLETED}`
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 8 NOT STARTED`
`{CONFLICT WITH CURRENT SYSTEM STATUS` *i*
`|RETRY LATER` *j*
`|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*`}`

[6] `AUD ENV=RTR FMGR 8 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the delayed queue audit (`FMGR 8`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System integrity monitor (SIM) could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.

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8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Possible error codes are:

82 — The number of delayed open requests is bad.

83 — The number of delayed mount requests is bad.

e = Address of the error: pointer to the `mount_q` table or the `open_q` table.

f = Erroneous data value.

g = Error index: used to identify the error.

h = Corrected data value.

If *d* =	Then *h* =
82	Correct number of delayed open requests.
83	Correct number of delayed mount requests.

i = Explanation of error - see Output Audit Appendix C, `AUD-APPC`.

j = Explanation of error - see Output Audit Appendix D, `AUD-APPD`.

k = Explanation of error - see Audit Appendix B, `AUD-APPB`.

l = Inhibit status. Possible values are:

`INHIBITED` — Audit has been automatically inhibited by SIM.
`ALLOWED` — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, `AUD-APPA`, and Output Audit Appendix B, `AUD-APPB`, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. ALARMS

None.

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6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD

Output Message
OP-AUD

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ID AUD-FMGR9-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD FMGR 9 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD FMGR 9 STOPPED`

[3] `AUD FMGR 9 ABORTED CODE` *c*

[4] `AUD FMGR 9 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 9 NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD FMGR 9 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the message queue audit (`FMGR 9`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.

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8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code.

81 — There are too many messages (message blocks) on the file manager's queue.

e = NULL.

f = Erroneous data value.

g = Error index: used to identify the error.

h = Corrected data value: ten times the number of tasks (160).

i = Explanation of error - see Output Audit Appendix C, AUD-APPC.

j = Explanation of error - see Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA, and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If failure occurs, run the file manager's task queue audit in noncorrecting mode.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD
```

Output Message

```
OP-AUD
```

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ID AUD-FMGR9-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR FMGR 9 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD ENV=RTR FMGR 9 STOPPED`

[3] `AUD ENV=RTR FMGR 9 ABORTED CODE` *c*

[4] `AUD ENV=RTR FMGR 9 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FMGR 9 NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD ENV=RTR FMGR 9 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the message queue audit (`FMGR 9`) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System integrity monitor (SIM) could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.

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8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code.

81 — There are too many messages (message blocks) on the file manager's queue.

e = NULL.

f = Erroneous data value.

g = Error index: used to identify the error.

h = Corrected data value: ten times the number of tasks (160).

i = Explanation of error - see Output Audit Appendix C, AUD-APPC.

j = Explanation of error - see Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA, and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If failure occurs, run the file manager's task queue audit in noncorrecting mode.

NOTE: If the messages appear regularly (i.e. rolling messages) even after the audit has been run in correcting mode, contact your next level of technical support.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

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Output Appendixes
- AUD-APPA
- AUD-APPB
- AUD-APPC
- AUD-APPD

Input Messages
- AUD:FMGR
- OP:AUD
- STOP:AUD
- STP:AUD

Output Message
- OP-AUD

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ID . . . . . AUD-FSBLK-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD FSBLK` *a b* `COMPLETED`
c `ERRORS FOUND`
d `ERRORS CORRECTED`

[2] `AUD FSBLK` *a b* `STOPPED`

[3] `AUD FSBLK` *a b* `ABORTED CODE` *e*

[4] `AUD FSBLK` *a b* `ERROR` *f* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*g* `DATA2 X'`*h*
`DATA3 X'`*i* `DATA4 X'`*j*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FSBLK NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *k*
|`RETRY LATER` *l*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *m*}

[6] `AUD FSBLK` *a* `AUTOMATICALLY` *n*

2. REASON FOR OUTPUT

To report the termination status of the file system block audit and/or any errors found during the audit execution.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. RTR audits have the value `1`, but application audits may be greater than `1`.

b = Name of the file system that was audited.

c = Total number of errors found.

d = Total number of errors corrected.

e = Abort code. Possible values are:

`3` — Audit was aborted without completing its work.
`4` — Audit was faulted while correcting errors.
`5` — System integrity monitor (SIM) could not start or dispatch the audit.

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6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.
8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

f = Error code. Possible error codes are:

1 — Bad superblock label:

g = Not used.
h = File system label.
i = Not used.
j = Not used.

2 — Bad file mode:

g = Inode number (index into inode table).
h = File mode.
i = Index used to locate error.
j = Not used.

3 — Bad file size:

g = Inode number (index into inode table).
h = Incorrect file size.
i = File type. Possible values are:

1 — Regular file direct block.
2 — Single indirect file.
3 — Double indirect file.
4 — Triple indirect file.
5 — Extent file.

j = New file size, if corrected; otherwise, old file size.

4 — Bad block (block out of file system block range):

g = Inode number (index into inode table).
h = Bad block number.
i = Block or file type. Possible values are:

1 — Regular file direct block.
2 — Single indirect file.
3 — Double indirect file.
4 — Triple indirect file.
5 — Extent file.

j = New block number if corrected; otherwise, old block number.

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5 — Duplicate block number:

g = Inode number.
h = Duplicate block number.
i = Block or file type. Possible values are:

1 — Regular file direct block.
2 — Single indirect block.
3 — Double indirect block.
4 — Triple indirect block.
5 — Extent file.

j = New block number if corrected; otherwise, old block number.

6 — Bad address block (address block contains invalid block addresses).

g = Inode number.
h = Bad or duplicate block number.
i = 0x000000AB indicating block or file type. A and B may have the following values:

A = 0 — The block is a data block.
1 — The block is an address block.
B = 1 — Regular file direct block.
2 — Single indirect block.
3 — Double indirect block.
4 — Triple indirect block.
5 — Extent file.

j = New block number if corrected; otherwise, old block number.

8 — Audit library initialization failed.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

9 — Unable to open device file.

g = Not used.
h = Error returned from attempt to open.
i = Index used to locate error.
j = Not used.

10 — Unable to start device file.

g = Not used.
h = Error returned from attempt to get status.
i = Index used to locate error.
j = Not used.

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11 — Device file not a block device.

g = Not used.
h = File type.
i = Index used to locate error.
j = Not used.

12 — Unable to open device file.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

13 — Unable to queue a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

14 — Unable to add segments.

g = Segment index into file manager's segment table.
h = Error returned from attempt to add segment.
i = Size in bytes of the segment to be added.
j = Not used.

15 — Unable to read superblock.

16 — Unable to access block (or get buffer to read block).

g = Block number.
h = Error returned.
i = Index used to locate error.
j = Inode number of current inode.

17 — Unable to get a free block.

g = Inode number of current inode.
h = Not used.
i = Index used to locate error.
j = Not used.

18 — Unable to access inode.

g = Inode number.
h = Error returned on attempt to access.
i = Index used to locate error.
j = Not used.

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19 — Unable to remove a segment.

g = Index in file manager's segment list.
h = Zero or error returned from attempt to remove the segment.
i = Indicates reason for failure. Possible values are:

000c — Failed to allocate a message.
000d — Failed to queue the message.
0013 — Request to remove the segment failed, error returned is found in *h*.

j = Not used.

20 — Cannot mount the device.

g = Not used.
h = Not used.
i = Index with the following values:

000a — No free mount table entry.
000b — Unable to read superblock.

j = Not used.

21 — Unable to get bitmap segment ID.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

22 — Bitmap I/O failed.

g = Not used.
h = Error returned from I/O attempt.
i = Index used to locate error.
j = Not used.

26 — The device file is open for writing.

g = Inode number of device file.
h = Number of opens for writing on the device.
i = Minor device chain table (MDCT) record identification (RID) for the file system on which the device file resides.
j = Partition for the file system on which the device file resides.

k = For explanation of error, see the output Audit Appendix C, AUD-APPC.

l = For explanation of error, see the output Audit Appendix D, AUD-APPD.

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m = For explanation of error, see the output Audit Appendix B, AUD-APPB.

n = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See output Audit Appendix A, AUD-APPA, and output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, 5, and 6, no action is necessary.

For Format 4, the following defines actions to be taken.

Error codes 1 and 2 are not correctable. Back up the file system from a backup source.

For size and block errors (error codes 3, 4, 5, and 6), use the input message OP:FNAME to print the full pathname of the file. To correct the error, rerun the audit in the CORR mode.

For error codes 8 through 26, seek technical assistance.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB key of 314.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FSBLK
OP:FNAME

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ID . . . . . AUD-FSBLK-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR FSBLK` *a b* `COMPLETED`
c `ERRORS FOUND`
d `ERRORS CORRECTED`

[2] `AUD ENV=RTR FSBLK` *a b* `STOPPED`

[3] `AUD ENV=RTR FSBLK` *a b* `ABORTED CODE` *e*

[4] `AUD ENV=RTR FSBLK` *a b* `ERROR` *f* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*g* `DATA2 X'`*h*
`DATA3 X'`*i* `DATA4 X'`*j*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FSBLK NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *k*
|`RETRY LATER` *l*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *m*}

[6] `AUD ENV=RTR FSBLK` *a* `AUTOMATICALLY` *n*

2. REASON FOR OUTPUT

To report the termination status of the file system block audit and/or any errors found during the audit execution.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. RTR audits have the value `1`, but application audits may be greater than `1`.

b = Name of the file system that was audited.

c = Total number of errors found.

d = Total number of errors corrected.

e = Abort code. Possible values are:

`3` — Audit was aborted without completing its work.
`4` — Audit was faulted while correcting errors.
`5` — System integrity monitor (SIM) could not start or dispatch the audit.

SEE PROPRIETARY NOTICE ON COVER PAGE

6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.
8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

f = Error code. Possible error codes are:

1 — Bad superblock label:

g = Not used.
h = File system label.
i = Not used.
j = Not used.

2 — Bad file mode:

g = Inode number (index into inode table).
h = File mode.
i = Index used to locate error.
j = Not used.

3 — Bad file size:

g = Inode number (index into inode table).
h = Incorrect file size.
i = File type. Possible values are:

1 — Regular file direct block.
2 — Single indirect file.
3 — Double indirect file.
4 — Triple indirect file.
5 — Extent file.

j = New file size, if corrected; otherwise, old file size.

4 — Bad block (block out of file system block range):

g = Inode number (index into inode table).
h = Bad block number.
i = Block or file type. Possible values are:

1 — Regular file direct block.
2 — Single indirect file.
3 — Double indirect file.
4 — Triple indirect file.
5 — Extent file.

j = New block number if corrected; otherwise, old block number.

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`5` — Duplicate block number:

g = Inode number.
h = Duplicate block number.
i = Block or file type. Possible values are:

`1` — Regular file direct block.
`2` — Single indirect block.
`3` — Double indirect block.
`4` — Triple indirect block.
`5` — Extent file.

j = New block number if corrected; otherwise, old block number.

`6` — Bad address block (address block contains invalid block addresses).

g = Inode number.
h = Bad or duplicate block number.
i = `0x000000`*AB* indicating block or file type. *A* and *B* may have the following values:

A = `0` — The block is a data block.
`1` — The block is an address block.
B = `1` — Regular file direct block.
`2` — Single indirect block.
`3` — Double indirect block.
`4` — Triple indirect block.
`5` — Extent file.

j = New block number if corrected; otherwise, old block number.

`8` — Audit library initialization failed.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

`9` — Unable to open device file.

g = Not used.
h = Error returned from attempt to open.
i = Index used to locate error.
j = Not used.

`10` — Unable to start device file.

g = Not used.
h = Error returned from attempt to get status.
i = Index used to locate error.
j = Not used.

11 — Device file not a block device.

g = Not used.
h = File type.
i = Index used to locate error.
j = Not used.

12 — Unable to open device file.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

13 — Unable to queue a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

14 — Unable to add segments.

g = Segment index into file manager's segment table.
h = Error returned from attempt to add segment.
i = Size in bytes of the segment to be added.
j = Not used.

15 — Unable to read superblock.

16 — Unable to access block (or get buffer to read block).

g = Block number.
h = Error returned.
i = Index used to locate error.
j = Inode number of current inode.

17 — Unable to get a free block.

g = Inode number of current inode.
h = Not used.
i = Index used to locate error.
j = Not used.

18 — Unable to access inode.

g = Inode number.
h = Error returned on attempt to access.
i = Index used to locate error.
j = Not used.

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19 — Unable to remove a segment.

g = Index in file manager's segment list.
h = Zero or error returned from attempt to remove the segment.
i = Indicates reason for failure. Possible values are:

000c — Failed to allocate a message.
000d — Failed to queue the message.
0013 — Request to remove the segment failed; error returned is found in *h*.

j = Not used.

20 — Cannot mount the device.

g = Not used.
h = Not used.
i = Index with the following values:

000a — No free mount table entry.
000b — Unable to read superblock.

j = Not used.

21 — Unable to get bitmap segment ID.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

22 — Bitmap I/O failed.

g = Not used.
h = Error returned from I/O attempt.
i = Index used to locate error.
j = Not used.

26 — The device file is open for writing.

g = Inode number of device file.
h = Number of opens for writing on the device.
i = Minor device chain table (MDCT) record identification (RID) for the file system on which the device file resides.
j = Partition for the file system on which the device file resides.

k = For explanation of error, see the output Audit Appendix C, AUD-APPC.

l = For explanation of error, see the output Audit Appendix D, AUD-APPD.

m = For explanation of error, see the output Audit Appendix B, AUD-APPB.

n = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See output Audit Appendix A, AUD-APPA, and output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, 5, and 6, no action is necessary.

For Format 4, the following defines actions to be taken.

Error codes 1 and 2 are not correctable. Back up the file system from a backup source.

For size and block errors (error codes 3, 4, 5, and 6), use the input message OP:FNAME to print the full pathname of the file. To correct the error, rerun the audit in the CORR mode.

For error codes 8 through 26, seek technical assistance.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB key of 314.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FSBLK
OP:FNAME

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ID . . . . . AUD-FSBLK-C
GENERIC . . . . . UNIX RTR R21.3 and R21.11
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR FSBLK` *a b* `COMPLETED`
c `ERRORS FOUND`
d `ERRORS CORRECTED`

[2] `AUD ENV=RTR FSBLK` *a b* `STOPPED`

[3] `AUD ENV=RTR FSBLK` *a b* `ABORTED CODE` *e*

[4] `AUD ENV=RTR FSBLK` *a b* `ERROR` *f* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*g* `DATA2 X'`*h*
`DATA3 X'`*i* `DATA4 X'`*j*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FSBLK NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *k*
|`RETRY LATER` *l*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *m*}

[6] `AUD ENV=RTR FSBLK` *a* `AUTOMATICALLY` *n*

2. REASON FOR OUTPUT

To report the termination status of the file system block audit and/or any errors found during the audit execution.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. RTR audits have the value `1`, but application audits may be greater than `1`.

b = Name of the file system that was audited.

c = Total number of errors found.

d = Total number of errors corrected.

e = Abort code. Possible values are:

`3` — Audit was aborted without completing its work.
`4` — Audit was faulted while correcting errors.
`5` — System integrity monitor (SIM) could not start or dispatch

the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.
8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

f = Error code. Possible error codes are:

1 — Bad superblock label:

g = Not used.
h = File system label.
i = Not used.
j = Not used.

2 — Bad file mode:

g = Inode number (index into inode table).
h = File mode.
i = Index used to locate error.
j = Not used.

3 — Bad file size:

g = Inode number (index into inode table).
h = Incorrect file size.
i = File type. Possible values are:

1 — Regular file direct block.
2 — Single indirect file.
3 — Double indirect file.
4 — Triple indirect file.
5 — Extent file.

j = New file size, if corrected; otherwise, old file size.

4 — Bad block (block out of file system block range):

g = Inode number (index into inode table).
h = Bad block number.
i = Block or file type. Possible values are:

1 — Regular file direct block.
2 — Single indirect file.
3 — Double indirect file.
4 — Triple indirect file.
5 — Extent file.

j = New block number if corrected; otherwise, old block number.

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5 — Duplicate block number:

g = Inode number.
h = Duplicate block number.
i = Block or file type. Possible values are:

1 — Regular file direct block.
2 — Single indirect block.
3 — Double indirect block.
4 — Triple indirect block.
5 — Extent file.

j = New block number if corrected; otherwise, old block number.

6 — Bad address block (address block contains invalid block addresses).

g = Inode number.
h = Bad or duplicate block number.
i = 0x000000*AB* indicating block or file type. *A* and *B* may have the following values:

A = 0 — The block is a data block.
1 — The block is an address block.
B = 1 — Regular file direct block.
2 — Single indirect block.
3 — Double indirect block.
4 — Triple indirect block.
5 — Extent file.

j = New block number if corrected; otherwise, old block number.

7 — Temporary file found in filesystem when audit invoked with PARAM=BACKUP. This condition does not represent an actual file system error, but if a backup tape is made with this condition present, the backup tape could contain file system errors. There is no corrective action that is possible or needed for this condition.

g = Inode number.
h = Not used.
i = Not used.
j = Not used.

8 — Audit library initialization failed.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

9 — Unable to open device file.

g = Not used.
h = Error returned from attempt to open.
i = Index used to locate error.
j = Not used.

10 — Unable to start device file.

g = Not used.
h = Error returned from attempt to get status.
i = Index used to locate error.
j = Not used.

11 — Device file not a block device.

g = Not used.
h = File type.
i = Index used to locate error.
j = Not used.

12 — Unable to open device file.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

13 — Unable to queue a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

14 — Unable to add segments.

g = Segment index into file manager's segment table.
h = Error returned from attempt to add segment.
i = Size in bytes of the segment to be added.
j = Not used.

15 — Unable to read superblock.

16 — Unable to access block (or get buffer to read block).

g = Block number.
h = Error returned.
i = Index used to locate error.
j = Inode number of current inode.

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`17` — Unable to get a free block.

g = Inode number of current inode.
h = Not used.
i = Index used to locate error.
j = Not used.

`18` — Unable to access inode.

g = Inode number.
h = Error returned on attempt to access.
i = Index used to locate error.
j = Not used.

`19` — Unable to remove a segment.

g = Index in file manager's segment list.
h = Zero or error returned from attempt to remove the segment.
i = Indicates reason for failure. Possible values are:

`000c` — Failed to allocate a message.
`000d` — Failed to queue the message.
`0013` — Request to remove the segment failed; error returned is found in *h*.

j = Not used.

`20` — Cannot mount the device.

g = Not used.
h = Not used.
i = Index with the following values:

`000a` — No free mount table entry.
`000b` — Unable to read superblock.

j = Not used.

`21` — Unable to get bitmap segment ID.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

`22` — Bitmap I/O failed.

g = Not used.
h = Error returned from I/O attempt.
i = Index used to locate error.
j = Not used.

26 — The device file is open for writing.

g = Inode number of device file.
h = Number of opens for writing on the device.
i = Record identification (RID) of the minor device chain table (MDCT) for the file system on which the device file resides.
j = Partition for the file system on which the device file resides.

k = For explanation of error, see the output Audit Appendix C, AUD-APPC.

l = For explanation of error, see the output Audit Appendix D, AUD-APPD.

m = For explanation of error, see the output Audit Appendix B, AUD-APPB.

n = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See output Audit Appendix A, AUD-APPA, and output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, 5, and 6, no action is necessary.

For Format 4, the following defines actions to be taken.

Error codes 1 and 2 are not correctable. Back up the file system from a backup source.

For size and block errors (error codes 3, 4, 5, and 6), use the input message OP:FNAME to print the full pathname of the file. To correct the error, rerun the audit in the CORR mode.

For error codes 8 through 26, seek technical assistance.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB key of 314.
Format 6 has an OMDB key of 558.

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Output Appendixes
- AUD-APPA
- AUD-APPB
- AUD-APPC
- AUD-APPD

Input Messages
- AUD:FSBLK
- OP:FNAME

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ID . . . . . AUD-FSBLK-D
GENERIC . . . . . UNIX RTR R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR FSBLK` *a b* `COMPLETED`
c `ERRORS FOUND`
d `ERRORS CORRECTED`

[2] `AUD ENV=RTR FSBLK` *a b* `STOPPED`

[3] `AUD ENV=RTR FSBLK` *a b* `ABORTED CODE` *e*

[4] `AUD ENV=RTR FSBLK` *a b* `ERROR` *f* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*g* `DATA2 X'`*h*
`DATA3 X'`*i* `DATA4 X'`*j*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FSBLK NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *k*
|`RETRY LATER` *l*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *m*}

[6] `AUD ENV=RTR FSBLK` *a* `AUTOMATICALLY` *n*

2. REASON FOR OUTPUT

To report the termination status of the file system block audit and/or any errors found during the audit execution.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. RTR audits have the value `1`, but application audits may be greater than `1`.

b = Name of the file system that was audited.

c = Total number of errors found.

d = Total number of errors corrected.

e = Abort code. Possible values are:

`3` — Audit was aborted without completing its work.
`4` — Audit was faulted while correcting errors.

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5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.
8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

f = Error code. Possible error codes are:

1 — Bad superblock label:

g = Not used.
h = File system label.
i = Not used.
j = Not used.

2 — Bad file mode:

g = Inode number (index into inode table).
h = File mode.
i = Index used to locate error.
j = Not used.

3 — Bad file size:

g = Inode number (index into inode table).
h = Incorrect file size.
i = File type. Possible values are:

1 — Regular file direct block.
2 — Single indirect file.
3 — Double indirect file.
4 — Triple indirect file.
5 — Extent file.

j = New file size, if corrected; otherwise, old file size.

4 — Bad block (block out of file system block range):

g = Inode number (index into inode table).
h = Bad block number.
i = Block or file type. Possible values are:

1 — Regular file direct block.
2 — Single indirect file.
3 — Double indirect file.
4 — Triple indirect file.
5 — Extent file.

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j = New block number if corrected; otherwise, old block number.

5 — Duplicate block number:

g = Inode number.
h = Duplicate block number.
i = Block or file type. Possible values are:

1 — Regular file direct block.
2 — Single indirect block.
3 — Double indirect block.
4 — Triple indirect block.
5 — Extent file.

j = New block number if corrected; otherwise, old block number.

6 — Bad address block (address block contains invalid block addresses).

g = Inode number.
h = Bad or duplicate block number.
i = `0x000000`*AB* indicating block or file type. *A* and *B* may have the following values:

A = 0 — The block is a data block.
1 — The block is an address block.
B = 1 — Regular file direct block.
2 — Single indirect block.
3 — Double indirect block.
4 — Triple indirect block.
5 — Extent file.

j = New block number if corrected; otherwise, old block number.

7 — Temporary file found in filesystem when audit invoked with `PARAM=BACKUP`. This condition does not represent an actual file system error, but if a backup tape is made with this condition present, the backup tape could contain file system errors. There is no corrective action that is possible or needed for this condition.

g = Inode number.
h = Not used.
i = Not used.
j = Not used.

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8 — Audit library initialization failed.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

9 — Unable to open device file.

g = Not used.
h = Error returned from attempt to open.
i = Index used to locate error.
j = Not used.

10 — Unable to start device file.

g = Not used.
h = Error returned from attempt to get status.
i = Index used to locate error.
j = Not used.

11 — Device file not a block device.

g = Not used.
h = File type.
i = Index used to locate error.
j = Not used.

12 — Unable to open device file.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

13 — Unable to queue a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

14 — Unable to add segments.

g = Segment index into file manager's segment table.
h = Error returned from attempt to add segment.
i = Size in bytes of the segment to be added.
j = Not used.

15 — Unable to read superblock.

16 — Unable to access block (or get buffer to read block).

g = Block number.
h = Error returned.
i = Index used to locate error.
j = Inode number of current inode.

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17 — Unable to get a free block.

g = Inode number of current inode.
h = Not used.
i = Index used to locate error.
j = Not used.

18 — Unable to access inode.

g = Inode number.
h = Error returned on attempt to access.
i = Index used to locate error.
j = Not used.

19 — Unable to remove a segment.

g = Index in file manager's segment list.
h = Zero or error returned from attempt to remove the segment.
i = Indicates reason for failure. Possible values are:

000c — Failed to allocate a message.

000d — Failed to queue the message.

0013 — Request to remove the segment failed; error returned is found in *h*.

j = Not used.

20 — Cannot mount the device.

g = Not used.
h = Not used.
i = Index with the following values:

000a — No free mount table entry.
000b — Unable to read superblock.

j = Not used.

21 — Unable to get bitmap segment ID.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

22 — Bitmap I/O failed.

g = Not used.
h = Error returned from I/O attempt.
i = Index used to locate error.
j = Not used.

26 — The device file is open for writing.

g = Inode number of device file.
h = Number of opens for writing on the device.
i = Record identification (RID) of the minor device chain table (MDCT) for the file system on which the device file resides.
j = Partition for the file system on which the device file resides.

35 — File manager segment list is full.

g = Not used.
h = Not used.
i = Index used to locate error
j = Not used.

k = For explanation of error, see the output Audit Appendix C, AUD-APPC.

l = For explanation of error, see the output Audit Appendix D, AUD-APPD.

m = For explanation of error, see the output Audit Appendix B, AUD-APPB.

n = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See output Audit Appendix A, AUD-APPA, and output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, 5, and 6, no action is necessary.

For Format 4, the following defines actions to be taken.

Error codes 1 and 2 are not correctable. Back up the file system from a backup source.

For size and block errors (error codes 3, 4, 5, and 6), use the input message OP:FNAME to print the full pathname of the file. To correct the error, rerun the audit in the CORR mode.

For error codes 8 through 26, seek technical assistance.

Error code 35 occurs when the maximum number of file manager tasks are running and using all of the available file manager segment table slots. Rerun the audit at a time when there are no other file system audits running. If the problem persists, execute a level 3 craft initialization. If the problem still persists, create an off-line memory dump tape and seek technical assistance.

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5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB key of 314.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FSBLK
OP:FNAME

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ID . . . . . AUD-FSCMPT-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD FSCMPT` *a b* `COMPLETED`
c `ERRORS FOUND`
d `ERRORS CORRECTED`

[2] `AUD FSCMPT` *a b* `STOPPED`

[3] `AUD FSCMPT` *a b* `ABORTED CODE` *e*

[4] `AUD FSCMPT` *a b* `ERROR` *f* {`CORR` | `NOT CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*g* `DATA2 X'`*h*
`DATA3 X'`*i* `DATA4 X'`*j*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FSCMPT NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *k*
|`RETRY LATER` *l*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *m*}

[6] `AUD FSCMPT` *a* `AUTOMATICALLY` *n*

2. REASON FOR OUTPUT

To report the termination status of the file system compaction audit and/or errors found during the audit execution.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. RTR audits have the value `1`, but application audits may be greater than `1`.

b = Name of the file system that was audited.

c = Total number of error or report messages.

d = Total number of reports for corrected errors and for compaction completed.

e = Abort Code. Possible values are:

`3` — Audit was aborted without completing its work.
`4` — Audit was faulted while correcting errors.

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5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout limit.
8 — SIM aborted an executing routine audit because of a blocking request.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

f = Error code. Possible error codes are:

1 — Bad superblock label.

g = Not used.
h = File system label.
i = Not used.
j = Not used.

2 — Not a real error. Because, 1) compaction was requested in non-correcting (information only) mode, 2) compaction was requested in either correcting or non-correcting mode and could not complete because of non-corrected errors, or 3) compaction was requested in correcting mode and the projected number of contiguous blocks that could be freed is less than or equal to the current number of contiguous free blocks. Fields *g* through *j* contain the information.

g = Total number of free blocks.
h = Projected number of contiguous free blocks after compaction.
i = Current maximum number of contiguous free blocks.
j = Projected cost of compaction in number of relocations required. If the audit is internally aborted before the cost of compaction could be estimated, this field will be `0xffffffff`. If the audit is internally aborted after some compaction effort has been made, this field is the number of I/O read/write jobs already executed before the internal abort.

3 — Not a real error. Compaction was completed, and fields *g* through *j* are for information only.

g = Total number of free blocks.
h = Number of contiguous free blocks at end of file system after compaction.
i = Maximum number of contiguous free blocks before compaction.
j = Cost of compaction in number of I/O read/write

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jobs executed. If this field is zero, the file system requires no compaction.

4 — Bad block (block out of file system block range).

5 — Duplicate block number.

6 — Bad address block (address block contains invalid block addresses).

For errors 4, 5, and 6,

g = Inode number.
h = Bad or duplicate block number.
i = `0x000000`*AB* indicating block and file type, or `0x000000`*C*`0` indicating the block usage change that was occurring when the error was detected.

A, *B*, and *C* have the following values.

A = `0` — The block is a data block.
`1` — The block is an address block.
B = `1` — Regular file direct block.
`2` — Single indirect block.
`3` — Double indirect block.
`4` — Triple indirect block.
`5` — Extent file.
C = `3` — A block was being added to a regular file.
`4` — A block was being removed from a regular file.
`5` — Blocks were being added to a multi-extent or contiguous file.
`6` — Blocks were being removed from a multi-extent or contiguous file.

j = If *i* is of the form `0x000000`*AB*, the new block number if corrected; otherwise, old block number.
If *i* is of the form `0x000000`*C*`0`, the number of block usage errors found before termination of the audit.

8 — Audit library initialization failed.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

9 — Unable to open device file.

g = Not used.
h = Error returned from attempt to open.
i = Index used to locate error.
j = Not used.

10 — Unable to stat device file.

g = Not used.
h = Error returned from attempt to get status.
i = Index used to locate error.
j = Not used.

11 — Device file not a block device.

g = Not used.
h = File type.
i = Index used to locate error.
j = Not used.

12 — Unable to allocate a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

13 — Unable to queue a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

14 — Unable to add segments.

g = Segment index into file manager's segment table.
h = Error returned from attempt to add segment.
i = Size in bytes of the segment to be added.
j = Not used.

16 — Unable to access block (or get buffer to read block).

g = Block number.
h = Error returned.
i = Index used to locate error.
j = Inode number of current inode.

17 — Unable to get a free block.

g = Inode number of current inode.
h = Not used.
i = Index used to locate error.
j = Not used.

SEE PROPRIETARY NOTICE ON COVER PAGE

18 — Unable to access inode.

g = Inode number.
h = Error returned on attempt to access.
i = Index used to locate error.
j = Not used.

19 — Unable to remove a segment.

g = Index in file manager's segment list.
h = Zero or error returned from attempt to remove the segment.
i = Indicates reason for failure. Possible values are:

000c — Failed to allocate a message.
000d — Failed to queue the message.
0013 — Request to remove the segment failed, error returned is found in *h*.

j = Not used.

20 — Cannot mount the device.

g = Not used.
h = Not used.
i = Index with the following values:

000a — No free mount table entry.
000b — Unable to read superblock.

j = Not used.

21 — Unable to get bitmap segment ID.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

22 — Bitmap I/O failed.

g = Not used.
h = Error returned from I/O attempt.
i = Index used to locate error.
j = Not used.

SEE PROPRIETARY NOTICE ON COVER PAGE

23 — No available structures for mapping allocated blocks for the compaction.

g = Inode number.
h = First block number to be mapped.
i = `0x000000`*AB* indicating block or file type, or `0x000000`*C*`0` indicating the block usage change that was occurring when the error was detected.

A, *B*, and *C* have the following values.

A = `0` — The block is a data block.
`1` — The block is an address block.
B = `1` — Regular file direct block.
`2` — Single indirect block.
`3` — Double indirect block.
`4` — Triple indirect block.
`5` — Extent file.
C = `3` — A block was being added to a regular file.
`4` — A block was being removed from a regular file.
`5` — Blocks were being added to a multi-extent or contiguous file.
`6` — Blocks were being removed from a multi-extent or contiguous file.

j = If *i* is of the form `0x000000`*AB*, first block number to be mapped.
If *i* is of the form `0x000000`*C*`0`, the number of errors found before termination of the audit.

24 — Concurrent file system activity is interfering with the compaction effort.

g = Number of relocations needed at the beginning of an interval.
h = Number of relocations needed at the end of the interval.
i = Number of I/O read/write jobs already executed to achieve compaction.
j = Number of errors found before termination of the audit.

SEE PROPRIETARY NOTICE ON COVER PAGE

25 — I/O attempt failed.

g = Type of I/O. Possible values are:

1 — Attempt to read file system blocks failed.
2 — Attempt to write file system blocks failed.
3 — Attempt to update inodes failed.

h = Error returned on read or write attempt.
i = If *g* is 1 or 2, the starting block address. If *g* is 3, the inode number.
j = If *g* is 1 or 2, the number of blocks. If *g* is 3,

0001 — The inode is not in a temp'd state, or the incore copy of the temp'd inode is being updated.
0002 — The disk copy of a temp'd inode is being updated.

26 — The device file is open for writing.

g = Inode number of device file.
h = Number of opens for writing on the device.
i = Minor device chain table (MDCT) record identification (RID) for the file system on which the device file resides.
j = Partition for the file system on which the device file resides.

k = For explanation of error, see the output Audit Appendix C, AUD-APPC.

l = For explanation of error, see the output Audit Appendix D, AUD-APPD.

m = For explanation of error, see the output Audit Appendix B, AUD-APPB.

n = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See output Audit Appendix A, AUD-APPA, and output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, 5, and 6, no action is necessary.

For Format 4, take the following action.

Error code 1 is not correctable. Back up the file system from backup source.

For block errors (error codes 4, 5, and 6), run the block audit in non-correcting mode. If it finds errors, run the block audit in correcting mode. Then try this audit again.

For error codes 8 through 23, 25, and 26, seek technical assistance.

For error code 24, run this audit with reduced file system activity.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB key of 314.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FSCMPT
OP:FNAME

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . AUD-FSCMPT-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR FSCMPT` *a b* `COMPLETED`
c `ERRORS FOUND`
d `ERRORS CORRECTED`

[2] `AUD ENV=RTR FSCMPT` *a b* `STOPPED`

[3] `AUD ENV=RTR FSCMPT` *a b* `ABORTED CODE` *e*

[4] `AUD ENV=RTR FSCMPT` *a b* `ERROR` *f* {`CORR` | `NOT CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*g* `DATA2 X'`*h*
`DATA3 X'`*i* `DATA4 X'`*j*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FSCMPT NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *k*
|`RETRY LATER` *l*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *m*}

[6] `AUD ENV=RTR FSCMPT` *a* `AUTOMATICALLY` *n*

2. REASON FOR OUTPUT

To report the termination status of the file system compaction audit and/or errors found during the audit execution.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. RTR audits have the value `1`, but application audits may be greater than `1`.

b = Name of the file system that was audited.

c = Total number of error or report messages.

d = Total number of reports for corrected errors and for compaction completed.

e = Abort Code. Possible values are:

`3` — Audit was aborted without completing its work.
`4` — Audit was faulted while correcting errors.

SEE PROPRIETARY NOTICE ON COVER PAGE

5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout limit.
8 — SIM aborted an executing routine audit because of a blocking request.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

f = Error code. Possible error codes are:

1 — Bad superblock label.

g = Not used.
h = File system label.
i = Not used.
j = Not used.

2 — Not a real error. Because, 1) compaction was requested in non-correcting (information only) mode, 2) compaction was requested in either correcting or non-correcting mode and could not complete because of non-corrected errors, or 3) compaction was requested in correcting mode and the projected number of contiguous blocks that could be freed is less than or equal to the current number of contiguous free blocks. Fields *g* through *j* contain the information.

g = Total number of free blocks.
h = Projected number of contiguous free blocks after compaction.
i = Current maximum number of contiguous free blocks.
j = Projected cost of compaction in number of relocations required. If the audit is internally aborted before the cost of compaction could be estimated, this field will be `0x`*ffffffff*. If the audit is internally aborted after some compaction effort has been made, this field is the number of I/O read/write jobs already executed before the internal abort.

3 — Not a real error. Compaction was completed, and fields *g* through *j* are for information only.

g = Total number of free blocks.
h = Number of contiguous free blocks at end of file system after compaction.
i = Maximum number of contiguous free blocks before compaction.
j = Cost of compaction in number of I/O read/write

jobs executed. If this field is zero, the file system requires no compaction.

4 — Bad block (block out of file system block range).

5 — Duplicate block number.

6 — Bad address block (address block contains invalid block addresses).

For errors 4, 5, and 6,

g = Inode number.
h = Bad or duplicate block number.
i = 0x000000*AB* indicating block and file type, or 0x000000*C0* indicating the block usage change that was occurring when the error was detected.

A, *B*, and *C* have the following values.

A = 0 — The block is a data block.
1 — The block is an address block.
B = 1 — Regular file direct block.
2 — Single indirect block.
3 — Double indirect block.
4 — Triple indirect block.
5 — Extent file.
C = 3 — A block was being added to a regular file.
4 — A block was being removed from a regular file.
5 — Blocks were being added to a multi-extent or contiguous file.
6 — Blocks were being removed from a multi-extent or contiguous file.

j = If *i* is of the form 0x00000*0AB*, the new block number if corrected; otherwise, old block number.
If *i* is of the form 0x00000*0C0*, the number of block usage errors found before termination of the audit.

8 — Audit library initialization failed.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

9 — Unable to open device file.

g = Not used.
h = Error returned from attempt to open.
i = Index used to locate error.
j = Not used.

SEE PROPRIETARY NOTICE ON COVER PAGE

10 — Unable to stat device file.

g = Not used.
h = Error returned from attempt to get status.
i = Index used to locate error.
j = Not used.

11 — Device file not a block device.

g = Not used.
h = File type.
i = Index used to locate error.
j = Not used.

12 — Unable to allocate a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

13 — Unable to queue a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

14 — Unable to add segments.

g = Segment index into file manager's segment table.
h = Error returned from attempt to add segment.
i = Size in bytes of the segment to be added.
j = Not used.

16 — Unable to access block (or get buffer to read block).

g = Block number.
h = Error returned.
i = Index used to locate error.
j = Inode number of current inode.

17 — Unable to get a free block.

g = Inode number of current inode.
h = Not used.
i = Index used to locate error.
j = Not used.

18 — Unable to access inode.

g = Inode number.
h = Error returned on attempt to access.
i = Index used to locate error.
j = Not used.

SEE PROPRIETARY NOTICE ON COVER PAGE

19 — Unable to remove a segment.

g = Index in file manager's segment list.
h = Zero or error returned from attempt to remove the segment.
i = Indicates reason for failure. Possible values are

000c — Failed to allocate a message.
000d — Failed to queue the message.
0013 — Request to remove the segment failed, error returned is found in *h*.

j = Not used.

20 — Cannot mount the device.

g = Not used.
h = Not used.
i = Index with the following values:

000a — No free mount table entry.
000b — Unable to read superblock.

j = Not used.

21 — Unable to get bitmap segment ID.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

22 — Bitmap I/O failed.

g = Not used.
h = Error returned from I/O attempt.
i = Index used to locate error.
j = Not used.

23 — No available structures for mapping allocated blocks for the compaction.

g = Inode number.
h = First block number to be mapped.
i = 0x000000*AB* indicating block or file type, or 0x000000*C0* indicating the block usage change that was occurring when the error was detected.

A, *B*, and *C* have the following values.

A = 0 — The block is a data block.
1 — The block is an address block.
B = 1 — Regular file direct block.
2 — Single indirect block.
3 — Double indirect block.
4 — Triple indirect block.
5 — Extent file.

SEE PROPRIETARY NOTICE ON COVER PAGE

C = 3 — A block was being added to a regular file.
4 — A block was being removed from a regular file.
5 — Blocks were being added to a multi-extent or contiguous file.
6 — Blocks were being removed from a multi-extent or contiguous file.

j = If *i* is of the form `0x000000`*AB*, first block number to be mapped.
If *i* is of the form `0x000000`*C0*, the number of errors found before termination of the audit.

24 — Concurrent file system activity is interfering with the compaction effort.

g = Number of relocations needed at the beginning of an interval.
h = Number of relocations needed at the end of the interval.
i = Number of I/O read/write jobs already executed to achieve compaction.
j = Number of errors found before termination of the audit.

25 — I/O attempt failed.

g = Type of I/O. Possible values are:

1 — Attempt to read file system blocks failed.
2 — Attempt to write file system blocks failed.
3 — Attempt to update inodes failed.

h = Error returned on read or write attempt.
i = If *g* is `1 or 2`, the starting block address. If *g* is 3, the inode number.
j = If *g* is 1 or 2, the number of blocks. If *g* is 3:

`0001` — The inode is not in a temp'd state, or the incore copy of the temp'd inode is being updated.
`0002` — The disk copy of a temp'd inode is being updated.

26 — The device file is open for writing.

g = Inode number of device file.
h = Number of opens for writing on the device.
i = Mdct-rid for the file system on which the device file resides.
j = Partition for the file system on which the device file resides.

SEE PROPRIETARY NOTICE ON COVER PAGE

k = For explanation of error, see the output Audit Appendix C, AUD-APPC.

l = For explanation of error, see the output Audit Appendix D, AUD-APPD.

m = For explanation of error, see the output Audit Appendix B, AUD-APPB.

n = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See output Audit Appendix A, AUD-APPA, and output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, 5, and 6, no action is necessary.

For Format 4, take the following action.

Error code 1 is not correctable. Back up the file system from backup source.

For block errors (error codes 4, 5, and 6), run the block audit in non-correcting mode. If it finds errors, run the block audit in correcting mode. Then try this audit again.

For error codes 8 through 23, 25, and 26, seek technical assistance.

For error code 24, run this audit with reduced file system activity.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB key of 314.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages
AUD:FSCMPT
OP:FNAME

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . AUD-FSCMPT-C
GENERIC . . . . . UNIX RTR R21.3 and R21.11
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has seven formats.

[1] `AUD ENV=RTR FSCMPT` *a b* `COMPLETED`
c `ERRORS FOUND`
d `ERRORS CORRECTED`

[2] `AUD ENV=RTR FSCMPT` *a b* `STOPPED`

[3] `AUD ENV=RTR FSCMPT` *a b* `ABORTED CODE` *e*

[4] `AUD ENV=RTR FSCMPT` *a b* `ERROR` *f* {`CORR` | `NOT CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*g* `DATA2 X'`*h*
`DATA3 X'`*i* `DATA4 X'`*j*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD ENV=RTR FSCMPT` *a b* `DATA` *k*
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*g* `DATA2 X'`*h*
`DATA3 X'`*i* `DATA4 X'`*j*

`[NO SUPPLEMENTARY DATA]`

[6] `AUD FSCMPT NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *l*
|`RETRY LATER` *m*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *n*}

[7] `AUD ENV=RTR FSCMPT` *a* `AUTOMATICALLY` *o*

2. REASON FOR OUTPUT

To report the termination status of the file system compaction audit and/or errors found during the audit execution.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. RTR audits have the value `1`, but application audits may be greater than `1`.

b = Name of the file system that was audited.

c = Total number of error or report messages.

d = Total number of reports for corrected errors and for compaction completed.

e = Abort Code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout limit.
8 — SIM aborted an executing routine audit because of a blocking request.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

f = Error code. Possible error codes are:

1 — Bad superblock label.

g = Not used.
h = File system label.
i = Not used.
j = Not used.

4 — Bad block (block out of file system block range).

5 — Duplicate block number.

6 — Bad address block (address block contains invalid block addresses).

For errors 4, 5, and 6,

g = Inode number.
h = Bad or duplicate block number.
i = 0x000000*AB* indicating block and file type, or 0x000000*C*0 indicating the block usage change that was occurring when the error was detected.

A, *B*, and *C* have the following values.

A = 0 — The block is a data block.
1 — The block is an address block.

B = 1 — Regular file direct block.
2 — Single indirect block.
3 — Double indirect block.
4 — Triple indirect block.
5 — Extent file.

C = 3 — A block was being added to a regular file.

4 — A block was being removed from a regular file.
5 — Blocks were being added to a multi-extent or contiguous file.
6 — Blocks were being removed from a multi-extent or contiguous file.

j = If *i* is of the form `0x000000`*AB*, the new block number if corrected; otherwise, old block number.
If *i* is of the form `0x000000`*C*`0`, the number of block usage errors found before termination of the audit.

8 — Audit library initialization failed.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

9 — Unable to open device file.

g = Not used.
h = Error returned from attempt to open.
i = Index used to locate error.
j = Not used.

10 — Unable to stat device file.

g = Not used.
h = Error returned from attempt to get status.
i = Index used to locate error.
j = Not used.

11 — Device file not a block device.

g = Not used.
h = File type.
i = Index used to locate error.
j = Not used.

12 — Unable to allocate a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

13 — Unable to queue a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

SEE PROPRIETARY NOTICE ON COVER PAGE

`14` — Unable to add segments.

g = Segment index into file manager's segment table.
h = Error returned from attempt to add segment.
i = Size in bytes of the segment to be added.
j = Not used.

`16` — Unable to access block (or get buffer to read block).

g = Block number.
h = Error returned.
i = Index used to locate error.
j = Inode number of current inode.

`17` — Unable to get a free block.

g = Inode number of current inode.
h = Not used.
i = Index used to locate error.
j = Not used.

`18` — Unable to access inode.

g = Inode number.
h = Error returned on attempt to access.
i = Index used to locate error.
j = Not used.

`19` — Unable to remove a segment.

g = Index in file manager's segment list.
h = Zero or error returned from attempt to remove the segment.
i = Indicates reason for failure. Possible values are

`000c` — Failed to allocate a message.
`000d` — Failed to queue the message.
`0013` — Request to remove the segment failed, error returned is found in *h*.

j = Not used.

`20` — Cannot mount the device.

g = Not used.
h = Not used.
i = Index with the following values:

`000a` — No free mount table entry.
`000b` — Unable to read superblock.

j = Not used.

`21` — Unable to get bitmap segment ID.

g = Not used.
h = Not used.
i = Index used to locate error.

j = Not used.

22 — Bitmap I/O failed.

g = Not used.
h = Error returned from I/O attempt.
i = Index used to locate error.
j = Not used.

23 — No available structures for mapping allocated blocks for the compaction.

g = Inode number.
h = First block number to be mapped.
i = `0x000000`*AB* indicating block or file type, or `0x000000`*C*`0` indicating the block usage change that was occurring when the error was detected.

A, *B*, and *C* have the following values.

A = `0` — The block is a data block.
`1` — The block is an address block.
B = `1` — Regular file direct block.
`2` — Single indirect block.
`3` — Double indirect block.
`4` — Triple indirect block.
`5` — Extent file.
C = `3` — A block was being added to a regular file.
`4` — A block was being removed from a regular file.
`5` — Blocks were being added to a multi-extent or contiguous file.
`6` — Blocks were being removed from a multi-extent or contiguous file.

j = If *i* is of the form `0x000000`*AB*, first block number to be mapped.
If *i* is of the form `0x000000`*C*`0`, the number of errors found before termination of the audit.

24 — Concurrent file system activity is interfering with the compaction effort.

g = Number of relocations needed at the beginning of an interval.
h = Number of relocations needed at the end of the interval.
i = Number of I/O read/write jobs already executed to achieve compaction.
j = Number of errors found before termination of the audit.

SEE PROPRIETARY NOTICE ON COVER PAGE

25 — I/O attempt failed.

g = Type of I/O. Possible values are:

1 — Attempt to read file system blocks failed.
2 — Attempt to write file system blocks failed.
3 — Attempt to update inodes failed.

h = Error returned on read or write attempt.
i = If *g* is 1 or 2, the starting block address. If *g* is 3, the inode number.
j = If *g* is 1 or 2, the number of blocks. If *g* is 3:

0001 — The inode is not in a temp'd state, or the incore copy of the temp'd inode is being updated.
0002 — The disk copy of a temp'd inode is being updated.

26 — The device file is open for writing.

g = Inode number of device file.
h = Number of opens for writing on the device.
i = Mdct-rid for the file system on which the device file resides.
j = Partition for the file system on which the device file resides.

k = Data report code. Possible data codes are:

2 — This report is generated for three conditions: 1) compaction was requested in non-correcting (information only) mode, 2) compaction was requested in either correcting or non-correcting mode and could not complete because of non-corrected errors, or 3) compaction was requested in correcting mode and the projected number of contiguous blocks that could be freed is less than or equal to the current number of contiguous free blocks. Fields *g* through *j* contain the following information.

g = Total number of free blocks.
h = Projected number of contiguous free blocks after compaction.
i = Current maximum number of contiguous free blocks.
j = Projected cost of compaction in number of relocations required. If the audit is internally aborted before the cost of compaction could be estimated, this field will be 0xffffffff. If the audit is internally aborted after some compaction effort has been made, this field is the number of I/O read/write jobs already executed before the internal abort.

3 — Compaction was completed, and fields *g* through *j* are for information only.

SEE PROPRIETARY NOTICE ON COVER PAGE

g = Total number of free blocks.
h = Number of contiguous free blocks at end of file system after compaction.
i = Maximum number of contiguous free blocks before compaction.
j = Cost of compaction in number of I/O read/write jobs executed. If this field is zero, the file system requires no compaction.

l = For explanation of error, see the output Audit Appendix C, AUD-APPC.

m = For explanation of error, see the output Audit Appendix D, AUD-APPD.

n = For explanation of error, see the output Audit Appendix B, AUD-APPB.

o = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See output Audit Appendix A, AUD-APPA, and output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, 5, 6, and 7, no action is necessary.

For Format 4, take the following action.

Error code 1 is not correctable. Back up the file system from backup source.

For block errors (error codes 4, 5, and 6), run the block audit in non-correcting mode. If it finds errors, run the block audit in correcting mode. Then try this audit again.

For error codes 8 through 23, 25, and 26, seek technical assistance.

For error code 24, run this audit with reduced file system activity.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Key(s)
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.

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Format 5 has an OMDB key of 693.
Format 6 has an OMDB key of 314.
Format 7 has an OMDB key of 558.

Output Appendixe(s)

```
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD
```

Input Message(s)

```
AUD:FSCMPT
OP:FNAME
```

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . AUD-FSCMPT-D
GENERIC . . . . . UNIX RTR R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has seven formats.

[1] `AUD ENV=RTR FSCMPT` *a b* `COMPLETED`
c `ERRORS FOUND`
d `ERRORS CORRECTED`

[2] `AUD ENV=RTR FSCMPT` *a b* `STOPPED`

[3] `AUD ENV=RTR FSCMPT` *a b* `ABORTED CODE` *e*

[4] `AUD ENV=RTR FSCMPT` *a b* `ERROR` *f* {`CORR` | `NOT CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*g* `DATA2 X'`*h*
`DATA3 X'`*i* `DATA4 X'`*j*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD ENV=RTR FSCMPT` *a b* `DATA` *k*
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*g* `DATA2 X'`*h*
`DATA3 X'`*i* `DATA4 X'`*j*

`[NO SUPPLEMENTARY DATA]`

[6] `AUD FSCMPT NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *l*
|`RETRY LATER` *m*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *n*}

[7] `AUD ENV=RTR FSCMPT` *a* `AUTOMATICALLY` *o*

2. REASON FOR OUTPUT

To report the termination status of the file system compaction audit and/or errors found during the audit execution.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. RTR audits have the value `1`, but application audits may be greater than `1`.

b = Name of the file system that was audited.

c = Total number of error or report messages.

d = Total number of reports for corrected errors and for compaction completed.

e = Abort Code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout limit.
8 — SIM aborted an executing routine audit because of a blocking request.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

f = Error code. Possible error codes are:

1 — Bad superblock label.

g = Not used.
h = File system label.
i = Not used.
j = Not used.

4 — Bad block (block out of file system block range).

5 — Duplicate block number.

6 — Bad address block (address block contains invalid block addresses).

For errors 4, 5, and 6,

g = Inode number.
h = Bad or duplicate block number.
i = 0x000000*AB* indicating block and file type, or 0x000000*C*0 indicating the block usage change that was occurring when the error was detected.

A, *B*, and *C* have the following values.

A = 0 — The block is a data block.
1 — The block is an address block.

B = 1 — Regular file direct block.
2 — Single indirect block.
3 — Double indirect block.
4 — Triple indirect block.
5 — Extent file.

C = 3 — A block was being added to a regular file.

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4 — A block was being removed from a regular file.
5 — Blocks were being added to a multi-extent or contiguous file.
6 — Blocks were being removed from a multi-extent or contiguous file.

j = If *i* is of the form `0x000000`*AB*, the new block number if corrected; otherwise, old block number.
If *i* is of the form `0x000000`*C*`0`, the number of block usage errors found before termination of the audit.

8 — Audit library initialization failed.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

9 — Unable to open device file.

g = Not used.
h = Error returned from attempt to open.
i = Index used to locate error.
j = Not used.

10 — Unable to stat device file.

g = Not used.
h = Error returned from attempt to get status.
i = Index used to locate error.
j = Not used.

11 — Device file not a block device.

g = Not used.
h = File type.
i = Index used to locate error.
j = Not used.

12 — Unable to allocate a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

13 — Unable to queue a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

`14` — Unable to add segments.

g = Segment index into file manager's segment table.
h = Error returned from attempt to add segment.
i = Size in bytes of the segment to be added.
j = Not used.

`16` — Unable to access block (or get buffer to read block).

g = Block number.
h = Error returned.
i = Index used to locate error.
j = Inode number of current inode.

`17` — Unable to get a free block.

g = Inode number of current inode.
h = Not used.
i = Index used to locate error.
j = Not used.

`18` — Unable to access inode.

g = Inode number.
h = Error returned on attempt to access.
i = Index used to locate error.
j = Not used.

`19` — Unable to remove a segment.

g = Index in file manager's segment list.
h = Zero or error returned from attempt to remove the segment.
i = Indicates reason for failure. Possible values are

`000c` — Failed to allocate a message.
`000d` — Failed to queue the message.
`0013` — Request to remove the segment failed, error returned is found in *h*.

j = Not used.

`20` — Cannot mount the device.

g = Not used.
h = Not used.
i = Index with the following values:

`000a` — No free mount table entry.
`000b` — Unable to read superblock.

j = Not used.

`21` — Unable to get bitmap segment ID.

g = Not used.
h = Not used.

i = Index used to locate error.
j = Not used.

22 — Bitmap I/O failed.

g = Not used.
h = Error returned from I/O attempt.
i = Index used to locate error.
j = Not used.

23 — No available structures for mapping allocated blocks for the compaction.

g = Inode number.
h = First block number to be mapped.
i = `0x000000`*AB* indicating block or file type, or `0x000000`*C*`0` indicating the block usage change that was occurring when the error was detected.

A, *B*, and *C* have the following values.

A = `0` — The block is a data block.
`1` — The block is an address block.
B = `1` — Regular file direct block.
`2` — Single indirect block.
`3` — Double indirect block.
`4` — Triple indirect block.
`5` — Extent file.
C = `3` — A block was being added to a regular file.
`4` — A block was being removed from a regular file.
`5` — Blocks were being added to a multi-extent or contiguous file.
`6` — Blocks were being removed from a multi-extent or contiguous file.

j = If *i* is of the form `0x000000`*AB*, first block number to be mapped.
If *i* is of the form `0x000000`*C*`0`, the number of errors found before termination of the audit.

24 — Concurrent file system activity is interfering with the compaction effort.

g = Number of relocations needed at the beginning of an interval.
h = Number of relocations needed at the end of the interval.
i = Number of I/O read/write jobs already executed to achieve compaction.
j = Number of errors found before termination of the audit.

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25 — I/O attempt failed.

g = Type of I/O. Possible values are:

1 — Attempt to read file system blocks failed.
2 — Attempt to write file system blocks failed.
3 — Attempt to update inodes failed.

h = Error returned on read or write attempt.
i = If *g* is 1 or 2, the starting block address. If *g* is 3, the inode number.
j = If *g* is 1 or 2, the number of blocks. If *g* is 3:

0001 — The inode is not in a temp'd state, or the incore copy of the temp'd inode is being updated.
0002 — The disk copy of a temp'd inode is being updated.

26 — The device file is open for writing.

g = Inode number of device file.
h = Number of opens for writing on the device.
i = Mdct-rid for the file system on which the device file resides.
j = Partition for the file system on which the device file resides.

35 — File manager segment list is full.

g = Not used.
h = Not used.
i = Index used to locate error
j = Not used.

k = Data report code. Possible data codes are:

2 — This report is generated for three conditions: 1) compaction was requested in non-correcting (information only) mode, 2) compaction was requested in either correcting or non-correcting mode and could not complete because of non-corrected errors, or 3) compaction was requested in correcting mode and the projected number of contiguous blocks that could be freed is less than or equal to the current number of contiguous free blocks. Fields *g* through *j* contain the following information.

g = Total number of free blocks.
h = Projected number of contiguous free blocks after compaction.
i = Current maximum number of contiguous free blocks.
j = Projected cost of compaction in number of relocations required. If the audit is internally aborted before the cost of compaction could be estimated, this field will be

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`0xffffffff`. If the audit is internally aborted after some compaction effort has been made, this field is the number of I/O read/write jobs already executed before the internal abort.

`3` — Compaction was completed, and fields *g* through *j* are for information only.

g = Total number of free blocks.
h = Number of contiguous free blocks at end of file system after compaction.
i = Maximum number of contiguous free blocks before compaction.
j = Cost of compaction in number of I/O read/write jobs executed. If this field is zero, the file system requires no compaction.

l = For explanation of error, see the output Audit Appendix C, `AUD-APPC`.

m = For explanation of error, see the output Audit Appendix D, `AUD-APPD`.

n = For explanation of error, see the output Audit Appendix B, `AUD-APPB`.

o = Inhibit status. Possible values are:

`INHIBITED` — Audit has been automatically inhibited by SIM.
`ALLOWED` — Audit has been automatically allowed by SIM.

NOTE: See output Audit Appendix A, `AUD-APPA`, and output Audit Appendix B, `AUD-APPB`, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, 5, 6, and 7, no action is necessary.

For Format 4, take the following action.

Error code `1` is not correctable. Back up the file system from backup source.

For block errors (error codes `4`, `5`, and `6`), run the block audit in non-correcting mode. If it finds errors, run the block audit in correcting mode. Then try this audit again.

For error codes `8` through `23`, `25`, and `26`, seek technical assistance.

For error code `24`, run this audit with reduced file system activity.

Error code `35` occurs when the maximum number of file manager tasks are running and using all of the available file manager segment table slots. Rerun the audit at a time when there are no other file system audits running. If the problem persists, execute a level 3 craft

initialization. If the problem still persists, create an off-line memory dump tape and seek technical assistance.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB key of 693.
Format 6 has an OMDB key of 314.
Format 7 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FSCMPT
OP:FNAME

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . AUD-FSLINK-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD FSLINK` *a b* `COMPLETED`
c `ERRORS FOUND`
d `ERRORS CORRECTED`

[2] `AUD FSLINK` *a b* `STOPPED`

[3] `AUD FSLINK` *a b* `ABORTED CODE` *e*

[4] `AUD FSLINK` *a b* `ERROR` *f* {`CORR` | `NOT CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*g* `DATA2 X'`*h*
`DATA3 X'`*i* `DATA4 X'`*j*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FSLINK NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *k*
|`RETRY LATER` *l*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *m*}

[6] `AUD FSLINK` *a* `AUTOMATICALLY` *n*

2. REASON FOR OUTPUT

To report the termination status of file system link audit and/or any errors found during the audit execution.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. RTR audits have the value `1`, but application audits may be greater than `1`.

b = Name of the file system that was audited.

c = Total number of errors.

d = Total number of reports for corrected errors and for compaction completed.

e = Abort Code. Possible values are:

`3` — Audit was aborted without completing its work.
`4` — Audit was faulted while correcting errors.

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5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.
8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the audit terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

f = Error code. Possible error codes are:

1 — Bad superblock label:

g = 0 - Not used.
h = File system label.
i = 0 - Not used.
j = 0 - Not used.

2 — Trashed inode in the inode table:

g = Inode number (index into inode table).
h = Inode number from inode table entry.
i = Not used.
j = Not used.

3 — Bad directory entry:

g = Inode number (index into inode table).
h = Inode number in the directory entry.
i = File type of directory. Possible values are:

1 — Regular file direct block.
2 — Single indirect block.
3 — Double indirect block.
4 — Triple indirect block.
5 — Extent file.

j = Corrected directory inode number if corrected; otherwise, inode number in the directory entry.

4 — Bad directory block (block out of file system block range):

g = Inode number (index into inode table).
h = Bad block number.
i = Not used.
j = Not used.

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5 — Bad link count (the link count in the inode is not the same as the number of references in the directories).

g = Inode number.
h = Bad link count of the inode.
i = Not used.
j = `CORRECTED` (if correcting audit) or `CORRECT` link count.

6 — Unreferenced inode:

g = Inode number.
h = Bad link count of the inode.
i = For non-correcting audit; not used.

For correcting audit, correcting type. Possible values are:

`0` — The unreferenced inode was zeroed out.
`1` — The unreferenced inode was written into a lost and found directory.

j = New link count. Possible values are:

`0` — If corrected and zero-length file.
`1` — If corrected and written to a lost and found directory.
— Otherwise, a count of the bad links.

7 — Link count of the directory inode is less than two:

g = Inode number.
h = Link count in inode.
i = Not used.
j = Not used.

8 — Audit library initialization failed.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

9 — Unable to open device file.

g = Not used.
h = Error returned from attempt to open.
i = Index used to locate error.
j = Not used.

10 — Unable to stat device file.

g = Not used.
h = Error returned from attempt to get status.
i = Index used to locate error.
j = Not used.

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`11` — Device file not block device.

g = Not used.
h = File type.
i = Index used locate error.
j = Not used.

`12` — Unable to allocate a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

`13` — Unable to queue a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

`14` — Unable to add segments.

g = Segment index into file manager's segment table.
h = Error returned from attempt to add segment.
i = Size in bytes of the segment to be added.
j = Not used.

`16` — Unable to access block (or get buffer to read block).

g = Block number.
h = Error returned.
i = Index used to locate error.
j = Inode number of current inode.

`18` — Unable to access inode.

g = Inode number.
h = Error returned on attempt to access.
i = Index used to locate error.
j = Not used.

`19` — Unable to remove a segment

g = Index in file manager's segment list.
h = Zero or error returned from attempt to remove the segment.
i = Indicates reason for failure. Possible values are:

`000c` — Failed to allocate a message.
`000d` — Failed to queue the message.
`0013` — Request to remove the segment failed; error returned is found in *h*.

j = Not used.

`20` — Cannot mount the device.

g = Not used.
h = Not used.
i = Index with the following values:

`000a` — No free mount table entry.
`000b` — Unable to read superblock.

j = Not used.

`26` — The device file is open for writing.

g = Inode number of device file.
h = Number of opens for writing on the device.
i = Minor device chain table (MDCT) record identification (RID) for the file system on which the device file resides.
j = Partition for the file system on which the device file resides.

`30` — References to a free inode.

g = Inode number with invalid references.
h = `0` - not used.
i = `0` - not used.
j = Number of invalid references.

`27` — Current directory entry could not be referenced from the parent directory.

g = Inode number.
h = Bad link count of the inode.
i = Correction type. Possible values are:

`1` — Not corrected - aborted. Parent inode should be two, but it is not.
`2` — Corrected. Parent inode should be two, but it is not.
`3` — Not corrected - aborted. Parent inode is not a directory.
`4` — Corrected. Parent inode is not a directory, but all files under the parent inode have written into the lost+found directory.
`5` — Unable to make the correction. Unable to write into the lost+found directory.
`6` — Corrected. Corrupted inode has been written into the lost+found directory.

j = Value. Zero if unknown; otherwise, the bad inode number.

28 — Current directory entry cannot reference its parent directory.

g = Current directory inode number.
h = Bad link count of the inode.
i = Not used.
j = Parent directory inode number.

29 — Current directory entry has a bad inode.

g = Inode number.
h = Bad link count of the inode.
i = Not used.
j = Bad inode number.

k = For explanation of error, see output Audit Appendix C, AUD-APPC.

l = For explanation of error, see output Audit Appendix D, AUD-APPD.

m = For explanation of error, see output Audit Appendix B, AUD-APPB.

n = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See output Audit Appendix A, AUD-APPA, and output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, 5, and 6, no action is necessary.

For Format 4, the action to be taken depends on the error code.

Error codes 1, 2, 4, and 7, are usually not correctable. Before backing up the file system from the backup source, rerun the audit in the correcting mode; this may correct some of the errors.

For error codes 3, 5, and 6, use the input command OP:FNAME to print the full path name of file. To correct errors, rerun the audit in the correcting (CORR) mode.

For error codes 8 through 20, seek technical assistance.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

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6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB key of 314.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FSLINK
OP:FNAME

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ID . . . . . AUD-FSLINK-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR FSLINK` *a b* `COMPLETED`
c `ERRORS FOUND`
d `ERRORS CORRECTED`

[2] `AUD ENV=RTR FSLINK` *a b* `STOPPED`

[3] `AUD ENV=RTR FSLINK` *a b* `ABORTED CODE` *e*

[4] `AUD ENV=RTR FSLINK` *a b* `ERROR` *f* {`CORR` | `NOT CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*g* `DATA2 X'`*h*
`DATA3 X'`*i* `DATA4 X'`*j*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FSLINK NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *k*
|`RETRY LATER` *l*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *m*}

[6] `AUD ENV=RTR FSLINK` *a* `AUTOMATICALLY` *n*

2. REASON FOR OUTPUT

To report the termination status of file system link audit and/or any errors found during the audit execution.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. RTR audits have the value `1`, but application audits may be greater than `1`.

b = Name of the file system that was audited.

c = Total number of errors.

d = Total number of reports for corrected errors and for compaction completed.

SEE PROPRIETARY NOTICE ON COVER PAGE

e = Abort Code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.
8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the audit terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

f = Error code. Possible error codes are:

1 — Bad superblock label:

g = Not used.
h = File system label.
i = Not used.
j = Not used.

2 — Trashed inode in the inode table:

g = Inode number (index into inode table).
h = Inode number from inode table entry.
i = Not used.
j = Not used.

3 — Bad directory entry:

g = Inode number (index into inode table).
h = Inode number in the directory entry.
i = File type of directory. Possible values are:

1 — Regular file direct block.
2 — Single indirect block.
3 — Double indirect block.
4 — Triple indirect block.
5 — Extent file.

j = Corrected directory inode number if corrected; otherwise, inode number in the directory entry.

4 — Bad directory block (block out of file system block range):

g = Inode number (index into inode table).
h = Bad block number.
i = Not used.
j = Not used.

`5` — Bad link count (the link count in the inode is not the same as the number of references in the directories).

g = Inode number.
h = Bad link count of the inode.
i = Not used.
j = `CORRECTED` (if correcting audit) or `CORRECT` link count.

`6` — Unreferenced inode:

g = Inode number.
h = Bad link count of the inode.
i = For non-correcting audit; not used.

For correcting audit, correcting type. Possible values are:

`0` — The unreferenced inode was zeroed out.
`1` — The unreferenced inode was written into a lost and found directory.

j = New link count. Possible values are:

`0` — If corrected and zero-length file.
`1` — If corrected and written to a lost and found directory.
— Otherwise, a count of the bad links.

`7` — Link count of the directory inode is less than two:

g = Inode number.
h = Link count in inode.
i = Not used.
j = Not used.

`8` — Audit library initialization failed.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

`9` — Unable to open device file.

g = Not used.
h = Error returned from attempt to open.
i = Index used to locate error.
j = Not used.

`10` — Unable to stat device file.

g = Not used.
h = Error returned from attempt to get status.
i = Index used to locate error.
j = Not used.

SEE PROPRIETARY NOTICE ON COVER PAGE

`11` — Device file not block device.

g = Not used.
h = File type.
i = Index used locate error.
j = Not used.

`12` — Unable to allocate a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

`13` — Unable to queue a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

`14` — Unable to add segments.

g = Segment index into file manager's segment table.
h = Error returned from attempt to add segment.
i = Size in bytes of the segment to be added.
j = Not used.

`16` — Unable to access block (or get buffer to read block).

g = Block number.
h = Error returned.
i = Index used to locate error.
j = Inode number of current inode.

`18` — Unable to access inode.

g = Inode number.
h = Error returned on attempt to access.
i = Index used to locate error.
j = Not used.

`19` — Unable to remove a segment

g = Index in file manager's segment list.
h = Zero or error returned from attempt to remove the segment.
i = Indicates reason for failure. Possible values are:

`000c` — Failed to allocate a message.
`000d` — Failed to queue the message.
`0013` — Request to remove the segment failed; error returned is found in *h*.

j = Not used.

`20` — Cannot mount the device.

g = Not used.
h = Not used.
i = Index with the following values:

`000a` — No free mount table entry.
`000b` — Unable to read superblock.

j = Not used.

`26` — The device file is open for writing.

g = Inode number of device file.
h = Number of opens for writing on the device.
i = Minor device chain table (MDCT) record identification (RID) for the file system on which the device file resides.
j = Partition for the file system on which the device file resides.

`30` — References to a free inode.

g = Inode number with invalid references.
h = `0` - not used.
i = `0` - not used.
j = Number of invalid references.

`27` — Current directory entry could not be referenced from the parent directory.

g = Inode number.
h = Bad link count of the inode.
i = Correction type. Possible values are:

`1` — Not corrected - aborted. Parent inode should be two, but it is not.
`2` — Corrected. Parent inode should be two, but it is not.
`3` — Not corrected - aborted. Parent inode is not a directory.
`4` — Corrected. Parent inode is not a directory, but all files under the parent inode have written into the lost+found directory.
`5` — Unable to make the correction. Unable to write into the lost+found directory.
`6` — Corrected. Corrupted inode has been written into the lost+found directory.

j = Value. Zero if unknown; otherwise, the bad inode number.

`28` — Current directory entry cannot reference its parent directory.

g = Current directory inode number.

SEE PROPRIETARY NOTICE ON COVER PAGE

h = Bad link count of the inode.
i = Not used.
j = Parent directory inode number.

29 — Current directory entry has a bad inode.

g = Inode number.
h = Bad link count of the inode.
i = Not used.
j = Bad inode number.

k = For explanation of error, see output Audit Appendix C, AUD-APPC.

l = For explanation of error, see output Audit Appendix D, AUD-APPD.

m = For explanation of error, see Audit Appendix B, AUD-APPB.

n = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See output Audit Appendix A, f4AUD-APPA, and output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, 5, and 6, no action is necessary.

For Format 4, the action to be taken depends on the error code.

Error codes 1, 2, 4, and 7 are usually not correctable. Before backing up the file system from the backup source, rerun the audit in the correcting mode; this may correct some of the errors.

For error codes 3, 5, and 6, use the input command OP:FNAME to print the full path name of file. To correct errors, rerun the audit in the correcting (CORR) mode.

For error codes 8 through 20, seek technical assistance.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 5 has an OMDB key of 314.
Format 6 has an OMDB key of 558.

Output Appendixes
- AUD-APPA
- AUD-APPB
- AUD-APPC
- AUD-APPD

Input Messages
- AUD:FSLINK
- OP:FNAME

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . AUD-FSLINK-C
GENERIC . . . . . UNIX RTR R21.3 and R21.11
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR FSLINK` *a b* `COMPLETED`
c `ERRORS FOUND`
d `ERRORS CORRECTED`

[2] `AUD ENV=RTR FSLINK` *a b* `STOPPED`

[3] `AUD ENV=RTR FSLINK` *a b* `ABORTED CODE` *e*

[4] `AUD ENV=RTR FSLINK` *a b* `ERROR` *f* {`CORR` | `NOT CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*g* `DATA2 X'`*h*
`DATA3 X'`*i* `DATA4 X'`*j*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FSLINK NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *k*
|`RETRY LATER` *l*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *m*}

[6] `AUD ENV=RTR FSLINK` *a* `AUTOMATICALLY` *n*

2. REASON FOR OUTPUT

To report the termination status of file system link audit and/or any errors found during the audit execution.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. RTR audits have the value `1`, but application audits may be greater than `1`.

b = Name of the file system that was audited.

c = Total number of errors.

d = Total number of reports for corrected errors and for compaction completed.

SEE PROPRIETARY NOTICE ON COVER PAGE

e = Abort Code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.
8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the audit terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

f = Error code. Possible error codes are:

1 — Bad superblock label:

g = Not used.
h = File system label.
i = Not used.
j = Not used.

2 — Trashed inode in the inode table:

g = Inode number (index into inode table).
h = Inode number from inode table entry.
i = Not used.
j = Not used.

3 — Bad directory entry:

g = Inode number (index into inode table).
h = Inode number in the directory entry.
i = File type of directory. Possible values are:

1 — Regular file direct block.
2 — Single indirect block.
3 — Double indirect block.
4 — Triple indirect block.
5 — Extent file.

j = Corrected directory inode number if corrected; otherwise, inode number in the directory entry.

4 — Bad directory block (block out of file system block range):

g = Inode number (index into inode table).
h = Bad block number.
i = Not used.
j = Not used.

5 — Bad link count (link count in inode not same as number of references in directories).

g = Inode number.
h = Bad link count of the inode.
i = Not used.
j = `CORRECTED` (if correcting audit) or `CORRECT` link count.

6 — Unreferenced inode:

g = Inode number.
h = Bad link count of the inode.
i = For non-correcting audit, not used.

For correcting audit, correcting type. Possible values are:

`0` — The unreferenced inode was zeroed out.
`1` — The unreferenced inode was written into a lost+found directory.

j = If non-correcting mode, the number of links from the file system.
If correcting mode and the file was zero length, the file is removed and this value is zero; otherwise, the file is linked into the lost+found directory and this value will be non-zero and the corrected number of links from the file system.

7 — Link count of the directory inode is less than two:

g = Inode number.
h = Link count in inode.
i = Not used.
j = Not used.

8 — Audit library initialization failed.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

9 — Unable to open device file.

g = Not used.
h = Error returned from attempt to open.
i = Index used to locate error.
j = Not used.

SEE PROPRIETARY NOTICE ON COVER PAGE

`10` — Unable to stat device file.

g = Not used.
h = Error returned from attempt to get status.
i = Index used to locate error.
j = Not used.

`11` — Device file not block device.

g = Not used.
h = File type.
i = Index used locate error.
j = Not used.

`12` — Unable to allocate a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

`13` — Unable to queue a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

`14` — Unable to add segments.

g = Segment index into file manager's segment table.
h = Error returned from attempt to add segment.
i = Size in bytes of the segment to be added.
j = Not used.

`16` — Unable to access block (or get buffer to read block).

g = Block number.
h = Error returned.
i = Index used to locate error.
j = Inode number of current inode.

`18` — Unable to access inode.

g = Inode number.
h = Error returned on attempt to access.
i = Index used to locate error.
j = Not used.

`19` — Unable to remove a segment.

g = Index in file manager's segment list.
h = Zero or error returned from attempt to remove the segment.
i = Indicates reason for failure. Possible values are:

`000c` — Failed to allocate a message.
`000d` — Failed to queue the message.

SEE PROPRIETARY NOTICE ON COVER PAGE

0013 — Request to remove the segment failed, error returned is found in *h*.

j = Not used.

20 — Cannot mount the device.

g = Not used.
h = Not used.
i = Index with the following values:

000a — No free mount table entry.
000b — Unable to read superblock.

j = Not used.

26 — The device file is open for writing.

g = Inode number of device file.
h = Number of opens for writing on the device.
i = Minor device chain table (MDCT) record identification (RID) for the file system on which the device file resides.
j = Partition for the file system on which the device file resides.

27 — Current directory entry could not be referenced from the parent directory.

g = Inode number.
h = Bad link count of the inode.
i = Correction type. Possible values are:

1 — Not corrected - aborted. Parent inode should be two, but it is not.
2 — Corrected. Parent inode should be two, but it is not.
3 — Not corrected - aborted. Parent inode is not a directory.
4 — Corrected. Parent inode is not a directory, but all files under the parent inode have written into the lost+found directory.
5 — Unable to make the correction. Unable to write into the lost+found directory.
6 — Corrected. Corrupted inode has been written into the lost+found directory.

j = Value (0) if unknown; otherwise, the bad inode number.

28 — Current directory entry cannot reference its parent directory.

g = Current directory inode number.
h = Bad link count of the inode.
i = Not used.

SEE PROPRIETARY NOTICE ON COVER PAGE

j = Parent directory inode number.

`29` — Current directory entry has a bad inode.

g = Inode number.
h = Bad link count of the inode.
i = Not used.
j = Bad inode number.

`30` — References to a free inode.

g = Inode number with invalid references.
h = Not used.
i = Not used.
j = Zero if corrected; otherwise, number of invalid references.

`31` — Current directory has more than one parent directory.

g = Inode number.
h = Parent inode originally specified by (`..`) in current directory.
i = Not used.
j = Not used.

`32` — Current directory is not reachable from file system root.

g = Inode number.
h = Parent inode originally specified by (`..`) in current directory.
i = Not used.
j = Not used.

`33` — Active but unreferenced file in filesystem when audit invoked with `PARAM=BACKUP`. This condition does not represent an actual file system error, but if a backup tape is made with this condition present, the backup tape could contain file system errors. There is no corrective action provided or needed for this condition.

g = Inode number.
h = Number of active opens on this inode.
i = Not used.
j = Process ID of a process (there may be others) with the inode open.

k = For explanation of error, see output Audit Appendix C, `AUD-APPC`.

l = For explanation of error, see output Audit Appendix D, `AUD-APPD`.

m = For explanation of error, see output Audit Appendix B, `AUD-APPB`.

n = Inhibit status. Possible values are:

`INHIBITED` — Audit has been automatically inhibited by SIM.
`ALLOWED` — Audit has been automatically allowed by SIM.

SEE PROPRIETARY NOTICE ON COVER PAGE

NOTE: See output Audit Appendix A, AUD-APPA, and output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, 5, and 6, no action is necessary.

For Format 4, the action to be taken depends on the error code.

Error codes 1, 2, 4, and 7, are usually not correctable. Before backing up the file system from the backup source, rerun the audit in the correcting mode; this may correct some of the errors.

For error codes 3, 5, and 27 through 32, use the input command OP:FNAME to print the full path name of file. To correct errors, rerun the audit in the correcting (CORR) mode. If the audit has detected multiple errors, then file system corruption has occurred. Save a copy of all FSLINK audit error messages and seek technical assistance.

For error code 6, the unreferenced file cannot be reached in the file system by any name. To correct errors, rerun the audit in the correcting (CORR) mode.

For error codes 8, 12, 13, 14, 16, 18, 19, and 20, check disk status and/or system resource usage. Rerun audit when the system is quiet and the disks are active. Disk access error or system resource access error has occurred.

For error codes 9, 10, and 11, check and repair or create a device file that defines the file system. The device file is non-existent or the wrong type.

For error codes 15 and 17, seek technical assistance.

For error code 26, rerun the audit later. If error persists, seek technical assistance.

The correcting mode may not correct all errors. For further investigation, contact your next level of technical assistance.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Key(s)
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB key of 314.
Format 6 has an OMDB key of 558.

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Appendix(es)
- AUD-APPA
- AUD-APPB
- AUD-APPC
- AUD-APPD

Input Message(s)
- AUD:FSLINK
- OP:FNAME

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . AUD-FSLINK-D
GENERIC . . . . . UNIX RTR R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR FSLINK` *a b* `COMPLETED`
c `ERRORS FOUND`
d `ERRORS CORRECTED`

[2] `AUD ENV=RTR FSLINK` *a b* `STOPPED`

[3] `AUD ENV=RTR FSLINK` *a b* `ABORTED CODE` *e*

[4] `AUD ENV=RTR FSLINK` *a b* `ERROR` *f* {`CORR` | `NOT CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*g* `DATA2 X'`*h*
`DATA3 X'`*i* `DATA4 X'`*j*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD FSLINK NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *k*
|`RETRY LATER` *l*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *m*}

[6] `AUD ENV=RTR FSLINK` *a* `AUTOMATICALLY` *n*

2. REASON FOR OUTPUT

To report the termination status of file system link audit and/or any errors found during the audit execution.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. RTR audits have the value `1`, but application audits may be greater than `1`.

b = Name of the file system that was audited.

c = Total number of errors.

d = Total number of reports for corrected errors and for compaction completed.

SEE PROPRIETARY NOTICE ON COVER PAGE

e = Abort Code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.
8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the audit terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

f = Error code. Possible error codes are:

1 — Bad superblock label:

g = Not used.
h = File system label.
i = Not used.
j = Not used.

2 — Trashed inode in the inode table:

g = Inode number (index into inode table).
h = Inode number from inode table entry.
i = Not used.
j = Not used.

3 — Bad directory entry:

g = Inode number (index into inode table).
h = Inode number in the directory entry.
i = File type of directory. Possible values are:

1 — Regular file direct block.
2 — Single indirect block.
3 — Double indirect block.
4 — Triple indirect block.
5 — Extent file.

j = Corrected directory inode number if corrected; otherwise, inode number in the directory entry.

4 — Bad directory block (block out of file system block range):

g = Inode number (index into inode table).
h = Bad block number.
i = Not used.
j = Not used.

5 — Bad link count (link count in inode not same as number of references in directories).

g = Inode number.
h = Bad link count of the inode.
i = Not used.
j = `CORRECTED` (if correcting audit) or `CORRECT` link count.

6 — Unreferenced inode:

g = Inode number.
h = Bad link count of the inode.
i = For non-correcting audit, not used.

For correcting audit, correcting type. Possible values are:

`0` — The unreferenced inode was zeroed out.
`1` — The unreferenced inode was written into a lost+found directory.

j = If non-correcting mode, the number of links from the file system.
If correcting mode and the file was zero length, the file is removed and this value is zero; otherwise, the file is linked into the lost+found directory and this value will be non-zero and the corrected number of links from the file system.

7 — Link count of the directory inode is less than two:

g = Inode number.
h = Link count in inode.
i = Not used.
j = Not used.

8 — Audit library initialization failed.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

9 — Unable to open device file.

g = Not used.
h = Error returned from attempt to open.
i = Index used to locate error.
j = Not used.

SEE PROPRIETARY NOTICE ON COVER PAGE

`10` — Unable to stat device file.

g = Not used.
h = Error returned from attempt to get status.
i = Index used to locate error.
j = Not used.

`11` — Device file not block device.

g = Not used.
h = File type.
i = Index used locate error.
j = Not used.

`12` — Unable to allocate a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

`13` — Unable to queue a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

`14` — Unable to add segments.

g = Segment index into file manager's segment table.
h = Error returned from attempt to add segment.
i = Size in bytes of the segment to be added.
j = Not used.

`16` — Unable to access block (or get buffer to read block).

g = Block number.
h = Error returned.
i = Index used to locate error.
j = Inode number of current inode.

`18` — Unable to access inode.

g = Inode number.
h = Error returned on attempt to access.
i = Index used to locate error.
j = Not used.

SEE PROPRIETARY NOTICE ON COVER PAGE

19 — Unable to remove a segment.

g = Index in file manager's segment list.
h = Zero or error returned from attempt to remove the segment.
i = Indicates reason for failure. Possible values are:

000c — Failed to allocate a message.
000d — Failed to queue the message.
0013 — Request to remove the segment failed, error returned is found in *h*.

j = Not used.

20 — Cannot mount the device.

g = Not used.
h = Not used.
i = Index with the following values:

000a — No free mount table entry.
000b — Unable to read superblock.

j = Not used.

26 — The device file is open for writing.

g = Inode number of device file.
h = Number of opens for writing on the device.
i = Minor device chain table (MDCT) record identification (RID) for the file system on which the device file resides.
j = Partition for the file system on which the device file resides.

27 — Current directory entry could not be referenced from the parent directory.

g = Inode number.
h = Bad link count of the inode.
i = Correction type. Possible values are:

1 — Not corrected - aborted. Parent inode should be two, but it is not.
2 — Corrected. Parent inode should be two, but it is not.
3 — Not corrected - aborted. Parent inode is not a directory.
4 — Corrected. Parent inode is not a directory, but all files under the parent inode have written into the lost+found directory.
5 — Unable to make the correction. Unable to write into the lost+found directory.
6 — Corrected. Corrupted inode has been written into the lost+found directory.

SEE PROPRIETARY NOTICE ON COVER PAGE

j = Value. Zero if unknown; otherwise, the bad inode number.

28 — Current directory entry cannot reference its parent directory.

g = Current directory inode number.
h = Bad link count of the inode.
i = Not used.
j = Parent directory inode number.

29 — Current directory entry has a bad inode.

g = Inode number.
h = Bad link count of the inode.
i = Not used.
j = Bad inode number.

30 — References to a free inode.

g = Inode number with invalid references.
h = Not used.
i = Not used.
j = Zero if corrected; otherwise, number of invalid references.

31 — Current directory has more than one parent directory.

g = Inode number.
h = Parent inode originally specified by (`..`) in current directory.
i = Not used.
j = Not used.

32 — Current directory is not reachable from file system root.

g = Inode number.
h = Parent inode originally specified by (`..`) in current directory.
i = Not used.
j = Not used.

33 — Active but unreferenced file in filesystem when audit invoked with `PARAM=BACKUP`. This condition does not represent an actual file system error, but if a backup tape is made with this condition present, the backup tape could contain file system errors. There is no corrective action provided or needed for this condition.

g = Inode number.
h = Number of active opens on this inode.
i = Not used.
j = Process ID of a process (there may be others) with the inode open.

SEE PROPRIETARY NOTICE ON COVER PAGE

35 — File manager segment list is full.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

k = For explanation of error, see output Audit Appendix C, AUD-APPC.

l = For explanation of error, see output Audit Appendix D, AUD-APPD.

m = For explanation of error, see output Audit Appendix B, AUD-APPB.

n = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See output Audit Appendix A, AUD-APPA, and output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, 5, and 6, no action is necessary.

For Format 4, the action to be taken depends on the error code.

Error codes 1, 2, 4, and 7, are usually not correctable. Before backing up the file system from the backup source, rerun the audit in the correcting mode; this may correct some of the errors.

For error codes 3, 5, and 27 through 32, use the input command OP:FNAME to print the full pathname of file. To correct errors, rerun the audit in the correcting (CORR) mode. If the audit has detected multiple errors, then file system corruption has occurred. Save a copy of all FSLINK audit error messages and seek technical assistance.

For error code 6, the unreferenced file cannot be reached in the file system by any name. To correct errors, rerun the audit in the correcting (CORR) mode.

For error codes 8, 12, 13, 14, 16, 18, 19, and 20, check disk status and/or system resource usage. Rerun audit when the system is quiet and the disks are active. Disk access error or system resource access error has occurred.

For error codes 9, 10, and 11, check and repair or create a device file that defines the file system. The device file is non-existent or the wrong type.

For error codes 15 and 17, seek technical assistance.

For error code 26, rerun the audit later. If error persists, seek technical assistance.

Error code 35 occurs when the maximum number of file manager tasks are running and using all of the available file manager segment table slots. Rerun the audit at a time when

there are no other file system audits running. If the problem persists, execute a level 3 craft initialization. If the problem still persists, create an off-line memory dump tape and seek technical assistance.

The correcting mode may not correct all errors. For further investigation, contact your next level of technical assistance.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB key of 314.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:FSLINK
OP:FNAME

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . AUD-MMGR-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has seven formats.

[1] `AUD MMGR` *a* `COMPLETED`
b `ERRORS FOUND`
c `ERRORS CORRECTED`

[2] `AUD MMGR` *a* `STOPPED`

[3] `AUD MMGR` *a* `ABORTED CODE` *d*

[4] `AUD MMGR` *a* `ERROR` *e* {`CORR`|`NOT CORR`}
`REPORT` {`STARTED`|`IN PROGRESS`|`COMPLETED`}
`DATA1` `X'`*f* `DATA2` `X'`*g*
`DATA3` `X'`*h* `DATA4` `X'`*i*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD MMGR` *a* `ERROR` *e* {`CORR`|`NOT CORR`}
`REPORT` {`STARTED`|`IN PROGRESS`|`COMPLETED`}

`SUPPLEMENTARY DATA BLOCK NUMBER 1`

`HEXADECIMAL DATA`

```
       +X'0     +X'4     +X'8     +X'c
X'000000          k    m    n    p
          .   .   .
          .   .   .
          .   .   .
```

`AUD MMGR` *a* `ERROR` *e* {`CORR`|`NOT CORR`}
`REPORT` {`STARTED`|`IN PROGRESS`|`COMPLETED`}

`SUPPLEMENTARY DATA BLOCK NUMBER 2`

`HEXADECIMAL DATA`

```
       +X'0     +X'4     +X'8     +X'c
X'000000      RRRRRRRR 000STTTT RRRRRRRR 000STTTT
                .  .  .
                .  .  .
```

[6] AUD MMGR NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS *q*
|RETRY LATER *r*
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR *s*}

[7] AUD MMGR *a* AUTOMATICALLY *t*

2. REASON FOR OUTPUT

To report the termination status of the memory manager audits and/or any errors found.

3. VARIABLE FIELD DEFINITIONS

a = Audit member:

- 1 — Segment descriptor table audit.
- 2 — Page table audit.
- 3 — Page descriptor table audit.
- 4 — Segment release audit.
- 5 — Segment unlock audit.
- 9 — Swap space compaction audit.

b = Total number of errors found.

c = Total number of errors corrected.

d = Abort code:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System integrity monitor (SIM) could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.
- 8 — SIM aborted an executing routine audit.
- 9 — Transient process that was running the audit terminated.
- 10 — A segmented audit exceeded an error threshold.

e - i = Error code and error data. Possible error codes and corresponding error data are:

- 1 — Not a real error. Swap space has been compacted, and fields *f* through *i* are for information only.
  - *f* = Number of holes after compaction.
  - *g* = Size of the largest hole after compaction.
  - *h* = Number of segments "moved" on the swap disk.
  - *i* = Number of segments swapped into memory by the compaction function.

SEE PROPRIETARY NOTICE ON COVER PAGE

2 — The swap space compaction audit was requested to run in a non-correcting mode, which is meaningless for this audit. If *d* = 2, fields *f* through *i* will be 0, field *b* will be 1 (1 error found) and *c* will be 0 (no errors corrected).

3 — The swap space compaction audit was unable to "move" a particular segment. Fields *f* and *g* are for information only.

f = Disk address (block number) of the segment.
g = Segment size in blocks.
h,i = 0 - Not used.

10 — Incorrect values in one or more of the following:
pointer to first segment descriptor, pointer to last segment descriptor, number of segment descriptors.

f = Value in pointer to first segment descriptor.
g = Value in pointer to last segment descriptor.
h = Value in number of segment descriptors.
i = 0 - Not used.

20 — Incorrect values in one or more of the following:
pointer to first page table, pointer to last page table, number of page tables.

f = Value in pointer to first page table.
g = Value in pointer to last page table.
h = Value in number of page tables.
i = 0 - Not used.

30 — Incorrect values in one or more of the following:
pointer to first page descriptor, pointer to last page descriptor, number of page descriptors.

f = Value in pointer to first page descriptor.
g = Value in pointer to last page descriptor.
h = Value in number of page descriptors.
i = 0 - Not used.

101 — Invalid link in the segment descriptor free list.

f = Invalid segment descriptors.
g,h,i = 0 - Not used.

102 — Segment descriptor on the free list is allocated.

f = Pointer to the allocated segment descriptor.
g,h,i = 0 - Not used.

103 — Incorrect value in the number of free segment descriptors.

f = Correct number of free segment descriptors.
g = Incorrect value in the number of free segment descriptors.
h,i = 0 - Not used.

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104 — Segment descriptor free list is circular.

f = Pointer to the segment descriptor at which error was found.
g,h, = 0 - Not used.

105 — Segment descriptor on free list not marked on-free-list.

CORR mode:

f = Pointer to the segment descriptor.
g,h,i = 0 - Not used.

NOT CORR mode:

f = Pointer to the segment descriptor.
g = Pointer to first free segment descriptor.
h,i = 0 - Not used.

106 — Free segment descriptor not on the free list.

f = Pointer to the segment descriptor.
g = Pointer to first free segment descriptor.
h,i = 0 - Not used.

107 — Segment descriptor with a valid page table pointer and/or non-zero status not marked allocated.

f = Pointer to the segment descriptor.
g = Uncorrected value of the status word in the segment descriptor.
h,i = 0 - Not used.

108 — Empty page table linked to a segment descriptor that is not page-protected.

f = Pointer to the segment descriptor.
g = Pointer to the page table.
h,i = 0 - Not used.

109 — Page table linked to a segment descriptor not marked allocated.

f = Pointer to the segment descriptor.
g = Pointer to the page table.
h,i = 0 - Not used.

110 — Invalid page table pointer in a segment descriptor.

f = Pointer to the segment descriptor.
g = Invalid page table pointer.
h,i = 0 - Not used.

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112 — Incorrect segment index in a page descriptor for a page linked to a segment descriptor.

f = Pointer to the segment descriptor.
g = Index into the segment's page table for the page.
h = Page number.
i = Incorrect segment index.

113 — Incorrect page index in a page descriptor for a page linked to a segment descriptor.

f = Pointer to the segment descriptor.
g = Index into the segment's page table for the page.
h = Page number.
i = Incorrect page index.

114 — Incorrect in-memory-page-count in segment descriptor.

f = Pointer to the segment descriptor.
g = Correct in-memory-page-count.
h = Incorrect in-memory-page-count in segment descriptor.
i = 0 - Not used.

115 — Page descriptor for a page linked to a segment descriptor not marked allocated.

f = Pointer to the segment descriptor.
g = Index into the segment's page table for the page.
h = Page number.
i = 0 - Not used.

(116 - 122) — Serious errors involving segment corruptions.

For these errors, the information reported differs depending on the mode of the audit. In NOT CORR mode, no supplementary data is provided. In CORR mode, one or two blocks of supplementary data is provided. The data field descriptions for NOT CORR mode will be listed for each error code individually. The data field descriptions for CORR mode, which are identical for all these errors, will follow. The SUPPLEMENTARY DATA BLOCK descriptions for these errors are given last.

(116 - 122) NOT CORR mode:

116 — Invalid page address in page table entry for a segment.

f = Pointer to the segment descriptor.
g = Index into the segment's page table for the page.
h = The invalid page address.
i = 0 - not used.

118 — Segment has pages that overlap.

f = Pointer to the segment descriptor.

g = Index of one entry in the page table for the page.
h = Index of the other entry in the page for the page.
i = Page number.

120 — Two segments overlap in a page.

f = Pointer to the segment descriptor for the first segment.
g = Pointer to the segment descriptor for the second segment.
h = 00*PP*00*QQ*, where *PP* (00 - 3F) is the index in the page table of the first segment for the common page, and *QQ* (00 - 3F) is the index in the page table of the second segment for the common page.
i = Page number.

122 — Two segments have the same page table.

f = Pointer to the segment descriptor for the first segment.
g = Pointer to the segment descriptor for the second segment.
h = Pointer to the common page table.
i = 0 - not used.

(116 - 122) CORR mode:

Data field descriptions:

f = Number of segments with error.
g = Number of non-killable processes that have any of these segments in their address spaces.
h = Number of killable processes that have any of these segments in their address spaces.
i = Number of killable processes that have been terminated.

In SUPPLEMENTARY DATA BLOCK NUMBER 1, each line of four data words describes a serious error.

k = Error code. Possible error codes and corresponding error data are:

00000074 (decimal 116) - invalid page address in an entry of the page table for a segment.

m = Pointer to the segment descriptor.
n = 000000*NN*, where *NN* (00 - 3F) is the index of the entry in the page table.
p = The invalid page address.

00000*076* (decimal 118) - overlap of pages within a segment.

m = Pointer to the segment descriptor.

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n = 000000*NN*, where *NN* (00 - 3F) is the index of one entry in the page table for the page.
p = 000000*PP*, where *PP* (00 - 3F) is the index of the other entry in the page table for the page.

00000078 (decimal 120) - Two segments overlap in a page.

m = Pointer to the segment descriptor for the first segment.
n = Pointer to the segment descriptor for the second segment.
p = 00*PP*00*QQ*, where *PP* (00 - 3F) is the index in the page table of the first segment for the common page, and *QQ* (00 - 3F) is the index in the page table of the second segment for the common page.

0000007*a* (decimal 122) - two segments have the same page table.

m = Pointer to the segment descriptor for the first segment.
n = Pointer to the segment descriptor for the second segment.
p = Pointer to the common page table.

In SUPPLEMENTARY DATA BLOCK NUMBER 2, each pair of data words describes a process that contains in its address space one or more of the segments with serious errors.

RRRRRRRR = Process number of the process.

S = Flags describing the process.

If *S* = 8, the process is a special kernel process.
If *S* = 4, the process is non-killable.
If *S* = 3, the process is killable and a termination message has been sent.
If *S* = 2, the process is killable, but no termination message was sent by this audit of the process.

TTTT = The pcode portion of the utility ID.

201 — Invalid link in the page table free list.

f = Invalid page table pointer.
g = 0 - not used.
h = 0 - not used.

i = `0` - not used.

`202` — Page table on the free list has non-free entries.

f = Pointer to the page table.
g = `0` - not used.
h = `0` - not used.
i = `0` - not used.

`203` — Incorrect value in the number of free page tables.

f = Correct number of free page tables.
g = Incorrect value in the number of free page tables.
h = `0` - Not used.
i = `0` - Not used.

`204` — Page table free list is circular.

f = Pointer to the page table at which error was found.
g = `0` - Not used.
h = `0` - Not used.
i = `0` - Not used.

`205` — Page table on free list not marked on-free-list.

f = Pointer to the page table.
g = `0` - Not used.
h = `0` - Not used.
i = `0` - Not used.

`206` — Page table lost; not on the free list and not linked to a segment descriptor.

f = Pointer to the page table.
g = Pointer to first free page table.
h = `0` - Not used.
i = `0` - Not used.

`301` — Invalid link index in the list of free pages.

f = Invalid link index.
g = `0` - Not used.
h = `0` - Not used.
i = `0` - Not used.

`302` — Page on the free list is allocated.

f = Page number of the page.
g = `0` - Not used.
h = `0` - Not used.
i = `0` - Not used.

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303 — Incorrect value in the number of free pages.

f = Correct number of free pages.
g = Incorrect value in the number of free pages.
h = 0 - Not used.
i = 0 - Not used.

304 — Free page list is circular.

f = Page number at which error was found.
g = 0 - Not used.
h = 0 - Not used.
i = 0 - Not used.

305 — Page descriptor for a page on free list not marked on-free-list.

f = Page number of the page.
g = 0 - Not used.
h = 0 - Not used.
i = 0 - Not used.

306 — Lost page; page not on free list and not linked to a segment descriptor.

f = Page number of the page.
g = Page number of first free page.
h = 0 - Not used.
i = 0 - Not used.

401 — Breakdown of a segment interrupted.

f = Pointer to a segment descriptor.
g = Status word in segment descriptor.
h = Index into segment descriptor table.
i = 0 - Not used.

501 — Old iolocked segment.

f = Pointer to segment descriptor.
g = Age of segment in minutes.
h = Index into segment descriptor table.
i = 0 - Not used.

q = Explanation of error - see Output Audit Appendix C, AUD-APPC.

r = Explanation of error - see Output Audit Appendix D, AUD-APPD.

s = Explanation of error - see Output Audit Appendix B, AUD-APPB.

t = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.

ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA, and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit was run in non-correcting mode and reported errors, rerun it in correcting mode.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB key of 71.
Format 7 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPD

Input Messages
AUD:MMGR
OP:AUD
STOP:AUD
STP:AUD

Output Message
OP-AUD

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . AUD-MMGR-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has seven formats.

[1] `AUD ENV=RTR MMGR` *a* `COMPLETED`
b `ERRORS FOUND`
c `ERRORS CORRECTED`

[2] `AUD ENV=RTR MMGR` *a* `STOPPED`

[3] `AUD ENV=RTR MMGR` *a* `ABORTED CODE` *d*

[4] `AUD ENV=RTR MMGR` *a* `ERROR` *e* {`CORR`|`NOT CORR`}
`REPORT` {`STARTED`|`IN PROGRESS`|`COMPLETED`}
`DATA1` `X'`*f* `DATA2` `X'`*g*
`DATA3` `X'`*h* `DATA4` `X'`*i*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD ENV=RTR MMGR` *a* `ERROR` *e* {`CORR`|`NOT CORR`}
`REPORT` {`STARTED`|`IN PROGRESS`|`COMPLETED`}

`SUPPLEMENTARY DATA BLOCK NUMBER 1`

`HEXADECIMAL DATA`

```
       +X'0     +X'4     +X'8     +X'c
X'000000          k    m    n    p
          .   .   .
          .   .   .
          .   .   .
```

`AUD ENV=RTR MMGR` *a* `ERROR` *e* {`CORR`|`NOT CORR`}
`REPORT` {`STARTED`|`IN PROGRESS`|`COMPLETED`}

`SUPPLEMENTARY DATA BLOCK NUMBER 2`

`HEXADECIMAL DATA`

```
       +X'0     +X'4     +X'8     +X'c
X'000000      RRRRRRRR 000STTTT RRRRRRRR 000STTTT
                .  .  .
                .  .  .
```

```
[6]     AUD MMGR NOT STARTED
        {CONFLICT WITH CURRENT SYSTEM STATUS  q
        |RETRY LATER  r
        |UNABLE TO IDENTIFY ERROR - INVALID DATA  ERROR s}

[7]     AUD ENV=RTR MMGR a AUTOMATICALLY t
```

2. REASON FOR OUTPUT

To report the termination status of the memory manager audits and/or any errors found.

3. VARIABLE FIELD DEFINITIONS

a = Audit member:

- 1 — Segment descriptor table audit.
- 2 — Page table audit.
- 3 — Page descriptor table audit.
- 4 — Segment release audit.
- 5 — Segment unlock audit.
- 9 — Swap space compaction audit.

b = Total number of errors found.

c = Total number of errors corrected.

d = Abort code:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System integrity monitor (SIM) could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.
- 8 — SIM aborted an executing routine audit.
- 9 — Transient process that was running the audit terminated.
- 10 — A segmented audit exceeded an error threshold.

e - i = Error code and error data. Possible error codes and corresponding error data are:

- 1 — Not a real error. Swap space has been compacted, and fields *f* through *i* are for information only.
  - *f* = Number of holes after compaction.
  - *g* = Size of the largest hole after compaction.
  - *h* = Number of segments "moved" on the swap disk.
  - *i* = Number of segments swapped into memory by the compaction function.
- 2 — The swap space compaction audit was requested to run in a non-correcting mode, which is meaningless for this audit. If *d* = 2, fields *f* through *i* will be 0, field *b* will be 1 (1 error found) and *c* will be 0 (no errors corrected).

SEE PROPRIETARY NOTICE ON COVER PAGE

`3` — The swap space compaction audit was unable to "move" a particular segment. Fields *f* and *g* are for information only.

f = Disk address (block number) of the segment.
g = Segment size in blocks.
h,i = `0` - Not used.

`10` — Incorrect values in one or more of the following:
pointer to first segment descriptor, pointer to last segment descriptor, number of segment descriptors.

f = Value in pointer to first segment descriptor.
g = Value in pointer to last segment descriptor.
h = Value in number of segment descriptors.
i = `0` - Not used.

`20` — Incorrect values in one or more of the following;
pointer to first page table, pointer to last page table, number of page tables.

f = Value in pointer to first page table.
g = Value in pointer to last page table.
h = Value in number of page tables.
i = `0` - Not used.

`30` — Incorrect values in one or more of the following; pointer to first page descriptor, pointer to last page descriptor, number of page descriptors.

f = Value in pointer to first page descriptor.
g = Value in pointer to last page descriptor.
h = Value in number of page descriptors.
i = `0` - Not used.

`101` — Invalid link in the segment descriptor free list.

f = Invalid segment descriptors.
g,h,i = `0` - Not used.

`102` — Segment descriptor on the free list is allocated.

f = Pointer to the allocated segment descriptor.
g,h,i = `0` - Not used.

`103` — Incorrect value in the number of free segment descriptors.

f = Correct number of free segment descriptors.
g = Incorrect value in the number of free segment descriptors.
h,i = `0` - Not used.

`104` — Segment descriptor free list is circular.

f = Pointer to the segment descriptor at which error was found.
g,h,i = `0` - Not used.

`105` — Segment descriptor on free list not marked on-free-list.

SEE PROPRIETARY NOTICE ON COVER PAGE

`CORR` mode:

f = Pointer to the segment descriptor.
g,h,i = `0` - Not used.

`NOT CORR` mode:

f = Pointer to the segment descriptor.
g = Pointer to first free segment descriptor.
h,i = `0` - Not used.

`106` — Free segment descriptor not on the free list.

f = Pointer to the segment descriptor.
g = Pointer to first free segment descriptor.
h,i = `0` - Not used.

`107` — Segment descriptor with a valid page table pointer and/or non-zero status not marked allocated.

f = Pointer to the segment descriptor.
g = Uncorrected value of the status word in the segment descriptor.
h,i = `0` - Not used.

`108` — Empty page table linked to a segment descriptor that is not page-protected.

f = Pointer to the segment descriptor.
g = Pointer to the page table.
h,i = `0` - Not used.

`109` — Page table linked to a segment descriptor not marked allocated.

f = Pointer to the segment descriptor.
g = Pointer to the page table.
h,i = `0` - Not used.

`110` — Invalid page table pointer in a segment descriptor.

f = Pointer to the segment descriptor.
g = Invalid page table pointer.
h,i = `0` - Not used.

`112` — Incorrect segment index in a page descriptor for a page linked to a segment descriptor.

f = Pointer to the segment descriptor.
g = Index into the segment's page table for the page.
h = Page number.
i = Incorrect segment index.

`113` — Incorrect page index in a page descriptor for a page linked to a segment descriptor.

f = Pointer to the segment descriptor.
g = Index into the segment's page table for the page.

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h = Page number.
i = Incorrect page index.

114 — Incorrect in-memory-page-count in segment descriptor.

f = Pointer to the segment descriptor.
g = Correct in-memory-page-count.
h = Incorrect in-memory-page-count in segment descriptor.
i = 0 - Not used.

115 — Page descriptor for a page linked to a segment descriptor not marked allocated.

f = Pointer to the segment descriptor.
g = Index into the segment's page table for the page.
h = Page number.
i = 0 - Not used.

(116 - 122) Serious errors involving segment corruptions.

For these errors, the information reported differs depending on the mode of the audit. In NOT CORR mode, no supplementary data is provided. In CORR mode, one or two blocks of supplementary data is provided. The data field descriptions for NOT CORR mode will be listed for each error code individually. The data field descriptions for CORR mode, which are identical for all these errors, will follow. The SUPPLEMENTARY DATA BLOCK descriptions for these errors are given last.

(116 - 122) NOT CORR mode:

116 — Invalid page address in page table entry for a segment.

f = Pointer to the segment descriptor.
g = Index into the segment's page table for the page.
h = The invalid page address.
i = 0 - not used.

118 — Segment has pages that overlap.

f = Pointer to the segment descriptor.
g = Index of one entry in the page table for the page.
h = Index of the other entry in the page for the page.
i = Page number.

120 — Two segments overlap in a page.

f = Pointer to the segment descriptor for the first segment.
g = Pointer to the segment descriptor for the second segment.
h = 00*PP*00*QQ*, where *PP* (00 - 3F) is the index in the page table of the first segment for the common page, and *QQ*(00 - 3F) is the index in the page table of the

second segment for the common page.
i = Page number.

122 — Two segments have the same page table.

f = Pointer to the segment descriptor for the first segment.
g = Pointer to the segment descriptor for the second segment.
h = Pointer to the common page table.
i = 0 - not used.

(116 - 122) CORR mode:

Data field descriptions:

f = Number of segments with error.
g = Number of non-killable processes that have any of these segments in their address spaces.
h = Number of killable processes that have any of these segments in their address spaces.
i = Number of killable processes that have been terminated.

In SUPPLEMENTARY DATA BLOCK NUMBER 1, each line of four data words describes a serious error.

k = Error code. Possible error codes and corresponding error data are:

00000074 (decimal 116) - invalid page address in an entry of the page table for a segment.

m = Pointer to the segment descriptor.
n = 000000*NN*, where *NN* (00 - 3F) is the index of the entry in the page table.
p = The invalid page address.

00000076 (decimal 118) - overlap of pages within a segment.

m = Pointer to the segment descriptor.
n = 000000*NN*, where *NN* (00 - 3F) is the index of one entry in the page table for the page.
p = 000000*PP*, where *PP* (00 - 3F) is the index of the other entry in the page table for the page.

00000078 (decimal 120) - Two segments overlap in a page.

m = Pointer to the segment descriptor for the first segment.
n = Pointer to the segment descriptor for the second segment.
p = 00*PP*00*QQ*, where *PP* (00 - 3F) is the index in the page table of the first segment for the

common page, and *QQ* (00 - 3F) is the index in the page table of the second segment for the common page.

0000007a (decimal 122) - two segments have the same page table.

m = Pointer to the segment descriptor for the first segment.
n = Pointer to the segment descriptor for the second segment.
p = Pointer to the common page table.

In SUPPLEMENTARY DATA BLOCK NUMBER 2, each pair of data words describes a process that contains in its address space one or more of the segments with serious errors.

RRRRRRRR = Process number of the process.

S = Flags describing the process.

If *S* = 8, the process is a special kernel process.
If *S* = 4, the process is non-killable.
If *S* = 3, the process is killable and a termination message has been sent.
If *S* = 2, the process is killable, but no termination message was sent by this audit of the process.

TTTT = The pcode portion of the utility ID.

201 — Invalid link in the page table free list.

f = Invalid page table pointer.
g = 0 - not used.
h = 0 - not used.
i = 0 - not used.

202 — Page table on the free list has non-free entries.

f = Pointer to the page table.
g = 0 - not used.
h = 0 - not used.
i = 0 - not used.

203 — Incorrect value in the number of free page tables.

f = Correct number of free page tables.
g = Incorrect value in the number of free page tables.
h = 0 - Not used.

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i = `0` - Not used.

`204` — Page table free list is circular.

f = Pointer to the page table at which error was found.
g = `0` - Not used.
h = `0` - Not used.
i = `0` - Not used.

`205` — Page table on free list not marked on-free-list.

f = Pointer to the page table.
g = `0` - Not used.
h = `0` - Not used.
i = `0` - Not used.

`206` — Page table lost; not on the free list and not linked to a segment descriptor.

f = Pointer to the page table.
g = Pointer to first free page table.
h = `0` - Not used.
i = `0` - Not used.

`301` — Invalid link index in the list of free pages.

f = Invalid link index.
g = `0` - Not used.
h = `0` - Not used.
i = `0` - Not used.

`302` — Page on the free list is allocated.

f = Page number of the page.
g = `0` - Not used.
h = `0` - Not used.
i = `0` - Not used.

`303` — Incorrect value in the number of free pages.

f = Correct number of free pages.
g = Incorrect value in the number of free pages.
h = `0` - Not used.
i = `0` - Not used.

`304` — Free page list is circular.

f = Page number at which error was found.
g = `0` - Not used.
h = `0` - Not used.
i = `0` - Not used.

SEE PROPRIETARY NOTICE ON COVER PAGE

305 — Page descriptor for a page on free list not marked on-free-list.

f = Page number of the page.
g = 0 - Not used.
h = 0 - Not used.
i = 0 - Not used.

306 — Lost page; page not on free list and not linked to a segment descriptor.

f = Page number of the page.
g = Page number of first free page.
h = 0 - Not used.
i = 0 - Not used.

401 — Breakdown of a segment interrupted.

f = Pointer to a segment descriptor.
g = Status word in segment descriptor.
h = Index into segment descriptor table.
i = 0 - Not used.

501 — Old iolocked segment.

f = Pointer to segment descriptor.
g = Age of segment in minutes.
h = Index into segment descriptor table.
i = Utility ID of segment's last owner (not necessarily the process that left the segment locked). 0 indicates the utility ID is not available.

q — Explanation of error - see Output Audit Appendix C, AUD-APPC.

r — Explanation of error - see Output Audit Appendix D, AUD-APPD.

s — Explanation of error - see Output Audit Appendix B, AUD-APPB.

t — Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.

ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA, and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit was run in non-correcting mode and reported errors, rerun it in correcting mode.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB key of 71.
Format 7 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPD

Input Messages
AUD:MMGR
OP:AUD
STOP:AUD
STP:AUD

Output Message
OP-AUD

Practice 254-341-235 *Audit Facilities - Description - DMERT Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . AUD-MMGR-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `AUD ENV=RTR MMGR` *a* `COMPLETED`
b `ERRORS FOUND`
c `ERRORS CORRECTED`

[2] `AUD ENV=RTR MMGR` *a* `STOPPED`

[3] `AUD ENV=RTR MMGR` *a* `ABORTED CODE` *d*

[4] `AUD ENV=RTR MMGR` *a* `ERROR` *e* {`CORR`|`NOT CORR`}
`REPORT` {`STARTED`|`IN PROGRESS`|`COMPLETED`}
`DATA1` `X'`*f* `DATA2` `X'`*g*
`DATA3` `X'`*h* `DATA4` `X'`*i*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD ENV=RTR MMGR` *a* `ERROR` *e* {`CORR`|`NOT CORR`}
`REPORT` {`STARTED`|`IN PROGRESS`|`COMPLETED`}

`SUPPLEMENTARY DATA BLOCK NUMBER 1`

`HEXADECIMAL DATA`

	+X'0	+X'4	+X'8	+X'*c*
X'000000	*j*	*k*	*l*	*m*
	.	.	.	
	.	.	.	
	.	.	.	

`AUD ENV=RTR MMGR` *a* `ERROR` *e* {`CORR`|`NOT CORR`}
`REPORT` {`STARTED`|`IN PROGRESS`|`COMPLETED`}

`SUPPLEMENTARY DATA BLOCK NUMBER 2`

`HEXADECIMAL DATA`

	+X'0	+X'4	+X'8	+X'*c*
X'000000	RRRRRRRR	000STTTT	RRRRRRRR	000STTTT
	.	.	.	
	.	.	.	
	.	.	.	

```
[6]     AUD ENV=RTR MMGR a DATA n
         REPORT {STARTED|IN PROGRESS|COMPLETED}
        DATA1  X'f DATA2  X'g
        DATA3  X'h DATA4  X'i

        [NO SUPPLEMENTARY DATA]

[7]     AUD MMGR NOT STARTED
        {CONFLICT WITH CURRENT SYSTEM STATUS  o
        |RETRY LATER  p
        |UNABLE TO IDENTIFY ERROR - INVALID DATA  ERROR q}

[8]     AUD ENV=RTR MMGR a AUTOMATICALLY r
```

2. REASON FOR OUTPUT

To report the termination status of the memory manager audits and/or any errors found.

3. VARIABLE FIELD DEFINITIONS

a = Audit member:

- 1 — Segment descriptor table audit.
- 2 — Page table audit.
- 3 — Page descriptor table audit.
- 4 — Segment release audit.
- 5 — Segment unlock audit.
- 9 — Swap space compaction audit.

b = Total number of errors found.

c = Total number of errors corrected.

d = Abort code:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System integrity monitor (SIM) could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.
- 8 — SIM aborted an executing routine audit.
- 9 — Transient process that was running the audit terminated.
- 10 — A segmented audit exceeded an error threshold.

e, f - i = Error code and error data. Possible error codes and corresponding error data are:

- 2 — The swap space compaction audit was requested to run in a non-correcting mode, which is meaningless for this audit. If *d* = 2, fields *f* through *i* will be 0, field *b* will be 1 (1 error found) and *c* will be 0 (no errors corrected).

`3` — The swap space compaction audit was unable to "move" a particular segment. Fields *f* and *g* are for information only.

f = Disk address (block number) of the segment.
g = Segment size in blocks.
h,i = `0` - Not used.

`10` — Incorrect values in one or more of the following:
pointer to first segment descriptor, pointer to last segment descriptor, number of segment descriptors.

f = Value in pointer to first segment descriptor.
g = Value in pointer to last segment descriptor.
h = Value in number of segment descriptors.
i = `0` - Not used.

`20` — Incorrect values in one or more of the following;
pointer to first page table, pointer to last page table, number of page tables.

f = Value in pointer to first page table.
g = Value in pointer to last page table.
h = Value in number of page tables.
i = `0` - Not used.

`30` — Incorrect values in one or more of the following; pointer to first page descriptor, pointer to last page descriptor, number of page descriptors.

f = Value in pointer to first page descriptor.
g = Value in pointer to last page descriptor.
h = Value in number of page descriptors.
i = `0` - Not used.

`101` — Invalid link in the segment descriptor free list.

f = Invalid segment descriptors.
g,h,i = `0` - Not used.

`102` — Segment descriptor on the free list is allocated.

f = Pointer to the allocated segment descriptor.
g,h,i = `0` - Not used.

`103` — Incorrect value in the number of free segment descriptors.

f = Correct number of free segment descriptors.
g = Incorrect value in the number of free segment descriptors.
h,i = `0` - Not used.

`104` — Segment descriptor free list is circular.

f = Pointer to the segment descriptor at which error was found.
g,h,i = `0` - Not used.

SEE PROPRIETARY NOTICE ON COVER PAGE

105 — Segment descriptor on free list not marked on-free-list.

CORR mode:

f = Pointer to the segment descriptor.
g,h,i = 0 - Not used.

NOT CORR mode:

f = Pointer to the segment descriptor.
g = Pointer to first free segment descriptor.
h,i = 0 - Not used.

106 — Free segment descriptor not on the free list.

f = Pointer to the segment descriptor.
g = Pointer to first free segment descriptor.
h,i = 0 - Not used.

107 — Segment descriptor with a valid page table pointer and/or non-zero status not marked allocated.

f = Pointer to the segment descriptor.
g = Uncorrected value of the status word in the segment descriptor.
h,i = 0 - Not used.

108 — Empty page table linked to a segment descriptor that is not page-protected.

f = Pointer to the segment descriptor.
g = Pointer to the page table.
h,i = 0 - Not used.

109 — Page table linked to a segment descriptor not marked allocated.

f = Pointer to the segment descriptor.
g = Pointer to the page table.
h,i = 0 - Not used.

110 — Invalid page table pointer in a segment descriptor.

f = Pointer to the segment descriptor.
g = Invalid page table pointer.
h,i = 0 - Not used.

112 — Incorrect segment index in a page descriptor for a page linked to a segment descriptor.

f = Pointer to the segment descriptor.
g = Index into the segment's page table for the page.
h = Page number.
i = Incorrect segment index.

113 — Incorrect page index in a page descriptor for a page linked to a segment descriptor.

f = Pointer to the segment descriptor.
g = Index into the segment's page table for the page.
h = Page number.
i = Incorrect page index.

114 — Incorrect in-memory-page-count in segment descriptor.

f = Pointer to the segment descriptor.
g = Correct in-memory-page-count.
h = Incorrect in-memory-page-count in segment descriptor.
i = 0 - Not used.

115 — Page descriptor for a page linked to a segment descriptor not marked allocated.

f = Pointer to the segment descriptor.
g = Index into the segment's page table for the page.
h = Page number.
i = 0 - Not used.

(116 - 122) Serious errors involving segment corruptions.

For these errors, the information reported differs depending on the mode of the audit. In NOT CORR mode, no supplementary data is provided. In CORR mode, one or two blocks of supplementary data is provided. The data field descriptions for NOT CORR mode will be listed for each error code individually. The data field descriptions for CORR mode, which are identical for all these errors, will follow. The SUPPLEMENTARY DATA BLOCK descriptions for these errors are given last.

(116 - 122) NOT CORR mode:

116 — Invalid page address in page table entry for a segment.

f = Pointer to the segment descriptor.
g = Index into the segment's page table for the page.
h = The invalid page address.
i = 0 - not used.

118 — Segment has pages that overlap.

f = Pointer to the segment descriptor.
g = Index of one entry in the page table for the page.
h = Index of the other entry in the page for the page.
i = Page number.

120 — Two segments overlap in a page.

f = Pointer to the segment descriptor for the first segment.
g = Pointer to the segment descriptor for the second

segment.

h = 00*PP*00*QQ*, where *PP* (00 - 3F) is the index in the page table of the first segment for the common page, and QQ (00 -3F) is the index in the page table of the second segment for the common page.

i = Page number.

122 — Two segments have the same page table.

f = Pointer to the segment descriptor for the first segment.

g = Pointer to the segment descriptor for the second segment.

h = Pointer to the common page table.

i = 0 - not used.

(116 - 122) CORR mode:

Data field descriptions:

f = Number of segments with error.

g = Number of non-killable processes that have any of these segments in their address spaces.

h = Number of killable processes that have any of these segments in their address spaces.

i = Number of killable processes that have been terminated.

In SUPPLEMENTARY DATA BLOCK NUMBER 1, each line of four data words describes a serious error.

j = Error code. Possible error codes and corresponding error data are:

00000074 (decimal 116) - invalid page address in an entry of the page table for a segment.

k = Pointer to the segment descriptor.

l = 000000*NN*, where *NN* (00 - 3F) is the index of the entry in the page table.

m = The invalid page address.

00000076 (decimal 118) - overlap of pages within a segment.

k = Pointer to the segment descriptor.

l = 000000*NN*, where *NN* (00 - 3F) is the index of one entry in the page table for the page.

m = 000000*PP*, where *PP* (00 - 3F) is the index of the other entry in the page table for the page.

00000078 (decimal 120) - Two segments overlap in a page.

k = Pointer to the segment descriptor for the first segment.

SEE PROPRIETARY NOTICE ON COVER PAGE

l = Pointer to the segment descriptor for the second segment.
m = 00*PP*00*QQ*, where *PP* (00 - 3F) is the index in the page table of the first segment for the common page, and *QQ* (00 - 3F) is the index in the page table of the second segment for the common page.

0000007a (decimal 122) - two segments have the same page table.

k = Pointer to the segment descriptor for the first segment.
l = Pointer to the segment descriptor for the second segment.
m = Pointer to the common page table.

In SUPPLEMENTARY DATA BLOCK NUMBER 2, each pair of data words describes a process that contains, in its address space, one or more of the segments with serious errors.

RRRRRRRR = Process number of the process.

S = Flags describing the process.

If *S* = 8, the process is a special kernel process.
If *S* = 4, the process is non-killable.
If *S* = 3, the process is killable and a termination message has been sent.
If *S* = 2, the process is killable, but no termination message was sent by this audit of the process.

TTTT = The pcode portion of the utility ID.

201 — Invalid link in the page table free list.

f = Invalid page table pointer.
g = 0 - not used.
h = 0 - not used.
i = 0 - not used.

202 — Page table on the free list has non-free entries.

f = Pointer to the page table.
g = 0 - not used.
h = 0 - not used.
i = 0 - not used.

SEE PROPRIETARY NOTICE ON COVER PAGE

`203` — Incorrect value in the number of free page tables.

f = Correct number of free page tables.
g = Incorrect value in the number of free page tables.
h = `0` - Not used.
i = `0` - Not used.

`204` — Page table free list is circular.

f = Pointer to the page table at which error was found.
g = `0` - Not used.
h = `0` - Not used.
i = `0` - Not used.

`205` — Page table on free list not marked on-free-list.

f = Pointer to the page table.
g = `0` - Not used.
h = `0` - Not used.
i = `0` - Not used.

`206` — Page table lost; not on the free list and not linked to a segment descriptor.

f = Pointer to the page table.
g = Pointer to first free page table.
h = `0` - Not used.
i = `0` - Not used.

`301` — Invalid link index in the list of free pages.

f = Invalid link index.
g = `0` - Not used.
h = `0` - Not used.
i = `0` - Not used.

`302` — Page on the free list is allocated.

f = Page number of the page.
g = `0` - Not used.
h = `0` - Not used.
i = `0` - Not used.

`303` — Incorrect value in the number of free pages.

f = Correct number of free pages.
g = Incorrect value in the number of free pages.
h = `0` - Not used.
i = `0` - Not used.

`304` — Free page list is circular.

f = Page number at which error was found.
g = `0` - Not used.
h = `0` - Not used.
i = `0` - Not used.

SEE PROPRIETARY NOTICE ON COVER PAGE

305 — Page descriptor for a page on free list not marked on-free-list.

f = Page number of the page.
g = 0 - Not used.
h = 0 - Not used.
i = 0 - Not used.

306 — Lost page; page not on free list and not linked to a segment descriptor.

f = Page number of the page.
g = Page number of first free page.
h = 0 - Not used.
i = 0 - Not used.

401 — Breakdown of a segment interrupted.

f = Pointer to a segment descriptor.
g = Status word in segment descriptor.
h = Index into segment descriptor table.
i = 0 - Not used.

501 — Old iolocked segment.

f = Pointer to segment descriptor.
g = Age of segment in minutes.
h = Index into segment descriptor table.
i = Utility ID of segment's last owner (not necessarily the process that left the segment locked). 0 indicates the utility ID is not available.

n, f - i = Data report code and data values. Possible data codes and corresponding data values are:

1 — Swap space has been compacted, and fields *f* through *i* are for information only.

f = Number of holes after compaction.
g = Size of the largest hole after compaction.
h = Number of segments "moved" on the swap disk.
i = Number of segments swapped into memory by the compaction function.

o = Explanation of error - see Output Audit Appendix C, AUD-APPC.

p = Explanation of error - see Output Audit Appendix D, AUD-APPD.

q = Explanation of error - see Output Audit Appendix B, AUD-APPB.

r = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.

ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA, and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit was run in non-correcting mode and reported errors, rerun it in correcting mode.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB key of 71.
Format 6 has an OMDB key of 693.
Format 7 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPD

Input Messages
AUD:MMGR
OP:AUD
STOP:AUD
STP:AUD

Output Message
OP-AUD

Practice 254-341-235 *Audit Facilities Description 3B20D Model 2 Processor*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . AUD-MSGBUF-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] AUD MSGBUF *a* COMPLETED
b ERRORS FOUND
c ERRORS CORRECTED

[2] AUD MSGBUF *a* STOPPED

[3] AUD MSGBUF *a* ABORTED CODE X'*d*

[4] AUD MSGBUF *a* ERROR *e* {CORR|NOT CORR}
REPORT {STARTED|IN PROGRESS|COMPLETED}
DATA 1 X'*f* DATA 2 X'*g*
DATA 3 X'*h* DATA 4 X'*i*

[NO SUPPLEMENTARY DATA]

[5] AUD MSGBUF *a* ERROR *e* {CORR|NOT CORR}
REPORT {STARTED|IN PROGRESS|COMPLETED}

SUPPLEMENTARY DATA BLOCK NUMBER 1

MESSAGE HEADER

X'*j* LINK
X'*k* FROM
X'*l* TO
X'*m* NBLKS
X'*n* FLAGS
X'*o* TYPE
X'*p* STAT
X'*q* SIZE
X'*r* OTYPE
X'*s* SEQNUM
X'*t* IDENT

[6] AUD MSGBUF *a* ERROR *e* {CORR|NOT CORR}
REPORT {STARTED|IN PROGRESS|COMPLETED}

SUPPLEMENTARY DATA BLOCK NUMBER 2

MESSAGE BUFFER EXTENDER BLOCK

X'*u* LINK
X'*v* OWNER
X'*w* TSTAMP
X'*x* BLKS
X'*y* FLAGS
X'*z* TYPE
X'*aa* UNUSED

[7] AUD MSGBUF NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS *bb*
|RETRY LATER *cc*
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR *dd*}

[8] AUD MSGBUF *a* AUTOMATICALLY *ee*

2. REASON FOR OUTPUT

To report the termination status of the message buffer (MSGBUF) resources audit and/or any errors found.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. One of the following:

1 - Message buffer queue audit.
2 - Message buffer extender block audit.

b = Total number of errors found.

c = Total number of errors corrected.

d = Abort code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — SIM could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.
8 — System integrity monitor (SIM) aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the audit terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

SEE PROPRIETARY NOTICE ON COVER PAGE

e = Error code. Possible error codes are:

NOTE: For UNIX® RTR R6.2 and earlier, the utility ID referred to below contains the following information:

bits 31-16	Process dct index
bits 15-5	Process code (utility from process .b file)
bits 4-0	Space (unused)

NOTE: For UNIX® RTR R6.3 and later, the utility ID referred to below contains the following information:

bits 31-16	Process dct index
bits 15-0	Process code (utility from process .b file)

NOTE: A `NULL` utility ID for a queued / dequeued message indicates that the associated process has died.

`110` — Bad message queue head pointer.

f = Address of the queue head pointer.

g = Bad queue head pointer.

h = Utility ID of process owning queue.

i = Corrected queue head pointer if the error was corrected, `0` if it was not. (`0` is also a valid queue head pointer).

`111` — Bad message queue link pointer.

f = Address of the message extender.

g = Bad queue link pointer.

h = Utility ID of process owning queue.

i = Corrected queue link pointer if the error was corrected, `0` if it was not. (`0` is also a valid queue link pointer).

If the corrected queue link pointer is the same as the bad queue link pointer, then the message extender with the bad link pointer was either marked unallocated or unqueued, and was not put onto the rebuilt message queue.

`112` — Allocation bit not set in message extender of queued message.

f = Address of the message extender.

g = Bad extender flags field.

h = Utility ID of process owning queue.

i = `0` - not used.

`113` — Bad on-queue indicator in message extender of queued message.

f = Address of the message extender.

g = Bad extender flags field.

h = Utility ID of process owning queue.

i = Correct extender flags field.

`114` — Allocation bit not set in message header of queued message.

f = Address of the message.

g = Bad message flags field.

h = Utility ID of process owning the queue.

i = Correct message flags field.

`115` — Bad message-to-field in message and bad message owner field in message extender.

f = Address of the message.

g = Process ID in message to field.

h = Process ID in message owner field.

i = Process ID of process owning queue.

`116` — Bad message owner in message extender.

f = Address of the message extender.

g = Process ID in message owner field.

h = Utility ID of process owning queue.

i = Process ID of process owning queue.

`117` — Bad message to field in message.

f = Address of the message.

g = Process ID in message to field.

h = Utility ID of process owning queue.

i = Process ID of process owning queue.

`118` — Message queue out of order.

f = Address of the message.

g = Receiver's utility ID.

h = Message type.

i = Sender's process ID (prior to 6.2).

SEE PROPRIETARY NOTICE ON COVER PAGE

i = Sender's utility ID (6.2 and later).

`119` — Old audit fault message queued to a non-killable process.

f = Address of the message.

g = Receiver's utility ID.

h = Message type.

i = Sender's process ID (prior to 6.2).

i = Sender's utility ID (6.2 and later).

`120` — Old audit fault message queued to a killable process.

f = Address of the message.

g = Receiver's utility ID.

h = Message type.

i = Sender's process ID (prior to 6.2).

i = Sender's utility ID (6.2 and later).

`121` — Old queued message (except an old queued audit fault message).

f = Address of the message.

g = Receiver's utility ID.

h = Message type.

i = Sender's process ID (prior to 6.2).

i = Sender's utility ID (6.2 and later).

`122` — Process has a circular message queue.

f = Address of the message extender.

g = Queue link pointer.

h = Utility ID of process owning queue.

i = Corrected queue link pointer if the error was corrected, `0` if it was not. (`0` is also a valid queue link pointer.)

`123` — Bad message queue tail pointer.

f = Address of the queue tail pointer.

g = Bad queue tail pointer.

h = Utility ID of process owning queue.

i = Corrected queue tail pointer if the error was corrected, `0` if it was not. (`0` is also a valid queue tail pointer.)

124 — Bad message queue block count.

e = Address of message queue count.

f = Bad message queue block count.

g = Utility ID of process owning queue.

h = Correct message queue block count.

125 — Old acknowledgment message queued to a non-killable supervisor process.

f = Address of the message.

g = Receiver's utility ID.

h = Message type.

i = Sender's process ID (prior to 6.2).

i = Sender's utility ID (6.2 and later).

126 — Old acknowledgment message queued to a killable supervisor process.

f = Address of the message.

g = Receiver's utility ID.

h = Message type.

i = Sender's process ID (prior to 6.2).

i = Sender's utility ID (6.2 and later).

200 — Allocated message with an invalid owner field.

f = Address of the message.

g = Process ID in message owner field.

h = Message type.

i = Sender's process ID (prior to 6.2).

i = Sender's utility ID (6.2 and later).

201 — Old allocated message.

f = Address of the message.

g = Owner's utility ID.

h = Message type.

i = Sender's process ID (prior to 6.2).

i = Sender's utility ID (6.2 and later).

214 — Allocated bit not set in message header of allocated message.

f = Address of the message.

SEE PROPRIETARY NOTICE ON COVER PAGE

g = Bad message flags field.

h = Utility ID of process owning queue.

i = Correct message flags field.

`216` — Queued message with an invalid owner.

f = Address of the message.

g = Process ID in message owner field.

h = Message type.

i = Sender's process ID (prior to 6.2).

i = Sender's utility ID (6.2 and later).

`219` — Old audit fault message queued to a non-killable process.

f = Address of the message.

g = Receiver's utility ID.

h = Message type.

i = Sender's process ID (prior to 6.2).

i = Sender's utility ID (6.2 and later).

`220` — Old audit fault message queued to a killable process.

f = Address of the message.

g = Receiver's utility ID.

h = Message type.

i = Sender's process ID (prior to 6.2).

i = Sender's utility ID (6.2 and later).

`221` — Old queued message (except an old queued audit fault message).

f = Address of the message.

g = Receiver's utility ID.

h = Message type.

i = Sender's process ID (prior to 6.2).

i = Sender's utility ID (6.2 and later).

`270` — Dequeued message with an invalid owner field.

f = Address of the message.

g = Process ID in message owner field.

h = Message type.

SEE PROPRIETARY NOTICE ON COVER PAGE

i = Sender's process ID (prior to 6.2).

i = Sender's utility ID (6.2 and later).

271 — Old dequeued audit fault message owned by a non-killable process.

f = Address of the message.

g = Receiver's utility ID.

h = Message type.

i = Sender's process ID (prior to 6.2).

i = Sender's utility ID (6.2 and later).

272 — Old dequeued audit fault message owned by a killable process.

f = Address of the message.

g = Receiver's utility ID.

h = Message type.

i = Sender's process ID (prior to 6.2).

i = Sender's utility ID (6.2 and later).

273 — Old dequeued message (except an audit fault message).

f = Address of the message.

g = Receiver's utility ID.

h = Message type.

i = Sender's process ID (prior to 6.2).

i = Sender's utility ID (6.2 and later).

274 — Over nine old non-queued messages (excluding audit fault messages) owned by a killable process.

f = Owner's process ID.

g = Owner's utility ID.

h = 0 - not used.

i = 0 - not used.

290 — Audit fault message response has an invalid message status.

f = Address of the audit fault message.

g = Invalid message status.

h = Sender's process ID.

i = 0 - not used.

291 — Invalid status for a message pointer in an audit fault message response.

f = Address of the audit fault message.

g = Invalid message pointer status.

h = Sender's process ID.

i = Message pointer.

j = Message link.

k = Process ID of message sender.

l = Process ID of message receiver.

m = Size of message in blocks.

n = Message flags.

o = Message type.

p = Message status.

q = Message size in bytes.

r = Old message type.

s = Sequence number.

t = Message identification.

u = Message queue link.

v = Process ID of message owner.

w = Time stamp.

x = Size of message in blocks.

y = Message extender flags.

z = Message type.

aa = Unused.

bb = Explanation of error - see Output Audit Appendix C, AUD-APPC.

cc = Explanation of error - see Output Audit Appendix D, AUD-APPD.

dd = Explanation of error - see Audit Appendix B, AUD-APPB.

ee = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.

ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA, and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

Errors 119, 120, 219, 220, 271, 272, 290, and 291 indicate that a process has probably mishandled an audit fault message, notify your next level of technical assistance. It is likely that errors 201 and 273 will not be corrected if any of these errors occur.

Errors 121, 125, 126, 201, 221, 273, and 274 indicate that a process may be having problems in processing its messages. Notify your next level of technical assistance.

Errors 219, 220, and 221 indicate an error in a queued message found by the message extender audit. Run the message queue audit (MSGBUF 1) and if the error is not found and corrected, then run the message extender audit (MSGBUF 2) again.

Errors 200, 216, and 270 indicate a problem in the ownership of a message. This may occur if a breakdown happens in a process termination. Run the process administration audit (PROAD 1) to complete the process termination.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Format 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB key of 74.
Format 6 has an OMDB key of 75.
Format 8 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:MSGBUF
OP:AUD
STOP:AUD
STP:AUD

Output Messages
OP-AUD
REPT-KAUDPRC

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . AUD-MSGBUF-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `AUD ENV=RTR MSGBUF` *a* `COMPLETED`
b `ERRORS FOUND`
c `ERRORS CORRECTED`

[2] `AUD ENV=RTR MSGBUF` *a* `STOPPED`

[3] `AUD ENV=RTR MSGBUF` *a* `ABORTED CODE X'`*d*

[4] `AUD ENV=RTR MSGBUF` *a* `ERROR` *e* {`CORR`|`NOT CORR`}
`REPORT` {`STARTED`|`IN PROGRESS`|`COMPLETED`}
`DATA 1 X'`*f* `DATA 2 X'`*g*
`DATA 3 X'`*h* `DATA 4 X'`*i*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD ENV=RTR MSGBUF` *a* `ERROR` *e* {`CORR`|`NOT CORR`}
`REPORT` {`STARTED`|`IN PROGRESS`|`COMPLETED`}

`SUPPLEMENTARY DATA BLOCK NUMBER 1`

`MESSAGE HEADER`

`X'`*j* `LINK`
`X'`*k* `FROM`
`X'`*l* `TO`
`X'`*m* `NBLKS`
`X'`*n* `FLAGS`
`X'`*o* `TYPE`
`X'`*p* `STAT`
`X'`*q* `SIZE`
`X'`*r* `OTYPE`
`X'`*s* `SEQNUM`
`X'`*t* `IDENT`

SEE PROPRIETARY NOTICE ON COVER PAGE

[6] AUD ENV=RTR MSGBUF *a* ERROR *e* {CORR|NOT CORR}
REPORT {STARTED|IN PROGRESS|COMPLETED}

SUPPLEMENTARY DATA BLOCK NUMBER 2

MESSAGE BUFFER EXTENDER BLOCK

X′*u* LINK
X′*v* OWNER
X′*w* TSTAMP
X′*x* BLKS
X′*y* FLAGS
X′*z* TYPE
X′*aa* UNUSED

[7] AUD MSGBUF NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS *bb*
|RETRY LATER *cc*
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR *dd*}

[8] AUD ENV=RTR MSGBUF *a* AUTOMATICALLY *ee*

2. REASON FOR OUTPUT

To report the termination status of the message buffer (MSGBUF) resources audit and/or any errors found.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. One of the following:

1 — Message buffer queue audit.
2 — Message buffer extender block audit.

b = Total number of errors found.

c = Total number of errors corrected.

d = Abort code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — SIM could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.
8 — System integrity monitor (SIM) aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the audit terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

SEE PROPRIETARY NOTICE ON COVER PAGE

e = Error code. Possible error codes are:

NOTE: The high order 16 bits of utility ID indicates process dct (dispatch control table) index, and the low order 16 bits of utility ID indicates pcode (process code).

NOTE: A `NULL` utility ID for a queued / dequeued message indicates that the associated process has died.

`110` — Bad message queue head pointer.

f = Address of the queue head pointer.
g = Bad queue head pointer.
h = Utility ID of process owning queue. Refer to the *NOTE*s above.
i = Corrected queue head pointer if the error was corrected, `0` if it was not. (`0` is also a valid queue head pointer).

`111` — Bad message queue link pointer.

f = Address of the message extender.
g = Bad queue link pointer.
h = Utility ID of process owning queue. Refer to the *NOTE*s above.
i = Corrected queue link pointer if the error was corrected, `0` if it was not. (`0` is also a valid queue link pointer).

If the corrected queue link pointer is the same as the bad queue link pointer, then the message extender with the bad link pointer was either marked unallocated or unqueued, and was not put onto the rebuilt message queue.

`112` — Allocation bit not set in message extender of queued message.

f = Address of the message extender.
g = Bad extender flags field.
h = Utility ID of process owning queue. Refer to the *NOTE*s above.
i = `0` - not used.

`113` — Bad on-queue indicator in message extender of queued message.

f = Address of the message extender.
g = Bad extender flags field.
h = Utility ID of process owning queue. Refer to the *NOTE*s above.
i = Correct extender flags field.

SEE PROPRIETARY NOTICE ON COVER PAGE

114 — Allocation bit not set in message header of queued message.

f = Address of the message.
g = Bad message flags field.
h = Utility ID of process owning the queue. Refer to the *NOTE*s above.
i = Correct message flags field.

115 — Bad message-to-field in message and bad message owner field in message extender.

f = Address of the message.
g = Process ID in message to field.
h = Process ID in message owner field.
i = Process ID of process owning queue.

116 — Bad message owner in message extender.

f = Address of the message extender.
g = Process ID in message owner field.
h = Utility ID of process owning queue. Refer to the *NOTE*s above.
i = Process ID of process owning queue.

117 — Bad message to field in message.

f = Address of the message.
g = Process ID in message to field.
h = Utility ID of process owning queue. Refer to the *NOTE*s above.
i = Process ID of process owning queue.

118 — Message queue out of order.

f = Address of the message.
g = Receiver's utility ID. Refer to the *NOTE*s above.
h = Message type.
i = Sender's process ID (prior to 6.2).
i = Sender's utility ID (6.2 and later). Refer to the *NOTE*s above.

119 — Old audit fault message queued to a non-killable process.

f = Address of the message.
g = Receiver's utility ID. Refer to the *NOTE*s above.
h = Message type.
i = Sender's process ID (prior to 6.2).
i = Sender's utility ID (6.2 and later). Refer to the *NOTE*s above.

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`120` — Old audit fault message queued to a killable process.

f = Address of the message.
g = Receiver's utility ID. Refer to the *NOTE*s above.
h = Message type.
i = Sender's process ID (prior to 6.2).
i = Sender's utility ID (6.2 and later). Refer to the *NOTE*s above.

`121` — Old queued message (except an old queued audit fault message).

f = Address of the message.
g = Receiver's utility ID. Refer to the *NOTE*s above.
h = Message type.
i = Sender's process ID (prior to 6.2).
i = Sender's utility ID (6.2 and later). Refer to the *NOTE*s above.

`122` — Process has a circular message queue.

f = Address of the message extender.
g = Queue link pointer.
h = Utility ID of process owning queue. Refer to the *NOTE*s above.
i = Corrected queue link pointer if the error was corrected, 0 if it was not. (0 is also a valid queue link pointer.)

`123` — Bad message queue tail pointer.

f = Address of the queue tail pointer.
g = Bad queue tail pointer.
h = Utility ID of process owning queue. Refer to the *NOTE*s above.
i = Corrected queue tail pointer if the error was corrected, 0 if it was not. (0 is also a valid queue tail pointer.)

`124` — Bad message queue block count.

e = Address of message queue count.
f = Bad message queue block count.
g = Utility ID of process owning queue. Refer to the *NOTE*s above.
h = Correct message queue block count.

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`125` — Old acknowledgment message queued to a non-killable supervisor process.

f = Address of the message.
g = Receiver's utility ID. Refer to the *NOTE*s above.
h = Message type.
i = Sender's process ID (prior to 6.2).
i = Sender's utility ID (6.2 and later). Refer to the *NOTE*s above.

`126` — Old acknowledgment message queued to a killable supervisor process.

f = Address of the message.
g = Receiver's utility ID. Refer to the *NOTE*s above.
h = Message type.
i = Sender's process ID (prior to 6.2).
i = Sender's utility ID (6.2 and later). Refer to the *NOTE*s above.

`200` — Allocated message with an invalid owner field.

f = Address of the message.
g = Process ID in message owner field.
h = Message type.
i = Sender's process ID (prior to 6.2).
i = Sender's utility ID (6.2 and later). Refer to the *NOTE*s above.

`201` — Old allocated message.

f = Address of the message.
g = Owner's utility ID. Refer to the *NOTE*s above.
h = Message type.
i = Sender's process ID (prior to 6.2).
i = Sender's utility ID (6.2 and later). Refer to the *NOTE*s above.

`214` — Allocated bit not set in message header of allocated message.

f = Address of the message.
g = Bad message flags field.
h = Utility ID of process owning queue. Refer to the *NOTE*s above.
i = Correct message flags field.

`216` — Queued message with an invalid owner.

f = Address of the message.
g = Process ID in message owner field.
h = Message type.
i = Sender's process ID (prior to 6.2).
i = Sender's utility ID (6.2 and later). Refer to the *NOTE*s above.

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`219` — Old audit fault message queued to a non-killable process.

f = Address of the message.
g = Receiver's utility ID. Refer to the *NOTE*s above.
h = Message type.
i = Sender's process ID (prior to 6.2).
i = Sender's utility ID (6.2 and later). Refer to the *NOTE*s above.

`220` — Old audit fault message queued to a killable process.

f = Address of the message.
g = Receiver's utility ID. Refer to the *NOTE*s above.
h = Message type.
i = Sender's process ID (prior to 6.2).
i = Sender's utility ID (6.2 and later). Refer to the *NOTE*s above.

`221` — Old queued message (except an old queued audit fault message).

f = Address of the message.
g = Receiver's utility ID. Refer to the *NOTE*s above.
h = Message type.
i = Sender's process ID (prior to 6.2).
i = Sender's utility ID (6.2 and later). Refer to the *NOTE*s above.

`270` — Dequeued message with an invalid owner field.

f = Address of the message.
g = Process ID in message owner field.
h = Message type.
i = Sender's process ID (prior to 6.2).
i = Sender's utility ID (6.2 and later). Refer to the *NOTE*s above.

`271` — Old dequeued audit fault message owned by a non-killable process.

f = Address of the message.
g = Receiver's utility ID. Refer to the *NOTE*s above.
h = Message type.
i = Sender's process ID (prior to 6.2).
i = Sender's utility ID (6.2 and later). Refer to the *NOTE*s above.

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`272` — Old dequeued audit fault message owned by a killable process.

f = Address of the message.
g = Receiver's utility ID. Refer to the *NOTE*s above.
h = Message type.
i = Sender's process ID (prior to 6.2).
i = Sender's utility ID (6.2 and later). Refer to the *NOTE*s above.

`273` — Old dequeued message (except an audit fault message).

f = Address of the message.
g = Receiver's utility ID. Refer to the *NOTE*s above.
h = Message type.
i = Sender's process ID (prior to 6.2).
i = Sender's utility ID (6.2 and later). Refer to the *NOTE*s above.

`274` — Over nine old non-queued messages (excluding audit fault messages) owned by a killable process.

f = Owner's process ID.
g = Owner's utility ID. Refer to the *NOTE*s above.
h = `0` - not used.
i = `0` - not used.

`290` — Audit fault message response has an invalid message status.

f = Address of the audit fault message.
g = Invalid message status.
h = Sender's process ID.
i = `0` - not used.

`291` — Invalid status for a message pointer in an audit fault message response.

f = Address of the audit fault message.
g = Invalid message pointer status.
h = Sender's process ID.
i = Message pointer.

j = Message link.

k = Process ID of message sender.

l = Process ID of message receiver.

m = Size of message in blocks.

n = Message flags.

o = Message type.

p = Message status.

q = Message size in bytes.

r = Old message type.

s = Sequence number.

t = Message identification.

u = Message queue link.

v = Process ID of message owner.

w = Time stamp.

x = Size of message in blocks.

y = Message extender flags.

z = Message type.

aa = Unused.

bb = Explanation of error - see Output Audit Appendix C, AUD-APPC.

cc = Explanation of error - see Output Audit Appendix D, AUD-APPD.

dd = Explanation of error - see Audit Appendix B, AUD-APPB.

ee = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA, and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

Errors 119, 120, 219, 220, 271, 272, 290, and 291 indicate that a process has probably mishandled an audit fault message, notify your next level of technical assistance. It is likely that errors 201 and 273 will not be corrected if any of these errors occur.

Errors 121, 125, 126, 201, 221, 273, and 274 indicate that a process may be having problems in processing its messages. Notify your next level of technical assistance.

Errors 219, 220, and 221 indicate an error in a queued message found by the message extender audit. Run the message queue audit (MSGBUF 1) and if the error is not found and corrected, then run the message extender audit (MSGBUF 2) again.

Errors 200, 216, and 270 indicate a problem in the ownership of a message. This may occur if a breakdown happens in a process termination. Run the process administration audit (PROAD 1) to complete the process termination.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Format 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB key of 74.
Format 6 has an OMDB key of 75.
Format 8 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:MSGBUF
OP:AUD
STOP:AUD
STP:AUD

Output Messages
OP-AUD
REPT-KAUDPRC

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . AUD-PMS-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `AUD PMS` *a* `COMPLETED`
b `ERRORS FOUND`
c `ERRORS CORRECTED`

[2] `AUD PMS` *a* `STOPPED`

[3] `AUD PMS` *a* `ABORTED CODE` *d*

[4] `AUD PMS` *a* `ERROR` *e* {`CORR` | `NOT CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA 1 X'00000000 DATA 2 X'00000000`
`DATA 3 X'00000000 DATA 4 X'00000000`

`[NO SUPPLEMENTARY DATA]`

[5] `AUD PMS` *a* `ERROR` *e* {`CORR` | `NOT CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
{`SUPPLEMENTARY DATA BLOCK NUMBER` *f*
| `SUPPLEMENTARY DATA FILE`}
g

[6] `AUD PMS` *a* `ERROR` *e* {`CORR`|`NOT CORR`} `REPORT`
{`STARTED` | `IN PROGRESS` | `COMPLETED`}
`SUPPLEMENTARY DATA FROM OMDB`
g

[7] `AUD PMS NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *h*
|`RETRY LATER` *i*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *j*}

[8] `AUD PMS` *a* `AUTOMATICALLY` *k*

2. REASON FOR OUTPUT

Format 1 indicates the input message completed, how many errors were found, and how many were corrected.

Format 2 indicates the audit stopped.

Format 3 indicates the audit aborted.

Formats 4, 5, and 6 indicate that an error has been found in the audit of the plant measurement database (PMS).

Format 7 indicates that the audit can not be started at this time.

Format 8 indicates the inhibit status of the PMS audit.

3. VARIABLE FIELD DEFINITIONS

a = Audit member number. One of the following:

- 1 — Manual, routine, or demand audit.
- 2 — Create the data base.

b = Total number of errors found.

c = Total number of errors corrected.

d = Abort code. Possible values are:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — SIM could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.
- 8 — SIM aborted an executing routine audit because of a blocking request.
- 9 — Transient process that was running the process terminated.
- 10 — A segmented audit exceeded an error threshold.
- 12 — Audit rejected the request to run from SIM.
- 13 — SIM aborted an executing audit because the audit system is being reinitialized.

e = Error code (0-5034). See CIP 254-303-106 *System Maintenance Manual*, Plant Measurements System (PMS) Audits chapter, for error codes 0-3, 1000, 1001, or 2000-5034. See LLA Output Appendix, LLA-APPA, for error codes 100-1301.

f = Supplementary data block number.

g = An explanation of the error identified by the error code. If the error code is 0-3, 1000, 1001, or 2000-5034, see Table 1. If the error code is 100-1301, see LLA Output Appendix, LLA-APPA.

Table 1 - PMSAUD Messages

```
lcall FAILURE.
FATAL, CAN'T CREATE NEW DATA BASE.
FATAL, CAN'T COPY NEW DISK DATA BASE TO INCORE.
```

SEE PROPRIETARY NOTICE ON COVER PAGE

NEW DATA BASE CREATED.
setid_rec MUTILATED.

Table 1 - PMSAUD Messages *(continued)*

FATAL, INCORE AND DISK DATA BASES MUTILATED,
NEW DATA BASE WILL BE CREATED.
INVALID RETURN VALUE FROM lla_audit.
INVALID DISPATCHED MESSAGE.
CAN'T RELEASE THE INCORE DATA BASE.
CAN'T RELEASE THE DISK DATA BASE.
CAN'T UNLOCK INCORE DATA BASE.
setid_rec CORRECTED.
lla_gtrid FAILURE.
INVALID SET TYPE.
CAN'T LOCK THE INCORE DATA BASE.
NONCORRECTABLE INTERNAL STRUCTURE.
CAN'T ATTACH TO INCORE DATA BASE.
lla_ainit FAILURE.
CAN'T UNLINK DISK DATABASE.
INVALID EXECUTION MODE.
INVALID AUDIT MEMBER NUMBER.
CAN'T ATTACH TO PRIMARY DISK DATA BASE.
lla_opensq FAILURE.
CAN'T GET setid_rec.
lla_rdget FAILURE.
lla_uprid FAILURE.
lla_opnset FAILURE.
lla_seqset FAILURE.
CAN'T OPEN /etc/pmdb
CAN'T OPEN /etc/pmdb.aud
INVALID DISK NAME.
INVALID AUDIT TYPE.
FAIL TO WRITE INCORE DATA BASE TO DISK.
fstat FAILURE.
FAIL TO WRITE DISK DATA BASE TO INCORE.
plib FAILURE.
makeseg FAILURE.
msgenab FAILURE.
CAN'T RECEIVE THE MESSAGE FROM SIM.
INTERNAL STRUCTURE CORRECTED. SEE /etc/log/pmsaud.
CANNOT ATTACH TO SECONDARY DISK DATABASE
CANNOT falloc DISK DATABASE
RESTORED INCORE DATABASE FROM DISK
PRIMARY DISK DATABASE IS BAD

```
SECONDARY DISK DATABASE IS BAD
RESTORED PRIMARY DISK DATABASE
RESTORED SECONDARY DISK DATABASE
REQUESTING DEMAND AUDIT TO RECOVER
```

h = Explanation of error - see the Output Audit Appendix C, AUD-APPC.

i = Explanation of error - see the Output Audit Appendix D, AUD-APPD.

j = Explanation of error - see Audit Appendix B, AUD-APPB.

k = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

Format 1 indicates success. Take no action.

Format 2 is an informational message that the audit has stopped. Take no action.

Format 3 indicates that the audit aborted. The action to be taken varies from retrying the audit to seeking technical advice, depending on the abort code.

Formats 4, 5, and 6 indicate that and error has been found in the audit of the PMS. Look up the error code as described in the variable field description section. Action to be taken varies depending on the error code.

Format 7 indicates that the audit can not be started at this time. Action to be taken varies from retrying the audit to seeking technical advice, depending on the reason for failure. See Audit Appendices C and D, AUD-APPC, and AUD-APPD,

Format 8 indicates the inhibit status of the PMS audit. Take no action.

5. ALARMS

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys
Format 1 has an OMDB Key of 78.
Formats 2 and 3 have an OMDB Key of 76.
Format 4 has an OMDB Key of 52.
Format 5 has an OMDB Key of 64.
Format 6 has an OMDB Key of 210.
Format 8 has an OMDB Key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD
LLA-APPA

Input Messages
AUD:PMS
OP:AUD
STOP:AUD
STP:AUD

Output Message
OP-AUD

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ID . . . . . AUD-PMS-B
GENERIC . . . . . UNIX RTR R6.4, R21.11, R21.15 and 21.17
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `AUD ENV=RTR PMS` *a* `COMPLETED`
b `ERRORS FOUND`
c `ERRORS CORRECTED`

[2] `AUD ENV=RTR PMS` *a* `STOPPED`

[3] `AUD ENV=RTR PMS` *a* `ABORTED CODE` *d*

[4] `AUD ENV=RTR PMS` *a* `ERROR` *e* {`CORR` | `NOT CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA 1 X'00000000 DATA 2 X'00000000`
`DATA 3 X'00000000 DATA 4 X'00000000`

`[NO SUPPLEMENTARY DATA]`

[5] `AUD ENV=RTR PMS` *a* `ERROR` *e* {`CORR` | `NOT CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
{`SUPPLEMENTARY DATA BLOCK NUMBER` *f*
| `SUPPLEMENTARY DATA FILE`}
g

[6] `AUD ENV=RTR PMS` *a* `ERROR` *e* {`CORR`|`NOT CORR`} `REPORT`
{`STARTED` | `IN PROGRESS` | `COMPLETED`}
`SUPPLEMENTARY DATA FROM OMDB`
g

[7] `AUD PMS NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *h*
|`RETRY LATER` *i*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *j*}

[8] `AUD ENV=RTR PMS` *a* `AUTOMATICALLY` *k*

2. REASON FOR OUTPUT

Format 1 indicates the input message completed, how many errors were found, and how many were corrected.

Format 2 indicates the audit stopped.

Format 3 indicates the audit aborted.

Formats 4, 5, and 6 indicate that an error has been found in the audit of the plant measurement database (PMS).

Format 7 indicates that the audit can not be started at this time.

Format 8 indicates the inhibit status of the PMS audit.

3. VARIABLE FIELD DEFINITIONS

a = Audit member number. One of the following:

- 1 — Manual, routine, or demand audit.
- 2 — Create the data base.

b = Total number of errors found.

c = Total number of errors corrected.

d = Abort code. Possible values are:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — SIM could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.
- 8 — SIM aborted an executing routine audit because of a blocking request.
- 9 — Transient process that was running the process terminated.
- 10 — A segmented audit exceeded an error threshold.
- 12 — Audit rejected the request to run from SIM.
- 13 — SIM aborted an executing audit because the audit system is being reinitialized.

e = Error code (0-5034). See CIP 254-303-106 *System Maintenance Manual*, Plant Measurements System (PMS) Audits chapter, for error codes 0-3, 1000, 1001, or 2000-5034. See LLA Output Appendix, LLA-APPA, for error codes 100-1301.

f = Supplementary data block number.

g = An explanation of the error identified by the error code. If the error code is 0-3, 1000, 1001, or 2000-5034, see Table 1. If the error code is 100-1301, see LLA Output Appendix, LLA-APPA.

Table 1 - PMSAUD Messages

```
lcall FAILURE.
```

Table 1 - PMSAUD Messages

```
FATAL, CAN'T CREATE NEW DATA BASE.
FATAL, CAN'T COPY NEW DISK DATA BASE TO INCORE.
NEW DATA BASE CREATED.
setid_rec MUTILATED.
FATAL, INCORE AND DISK DATA BASES MUTILATED,
NEW DATA BASE WILL BE CREATED.
INVALID RETURN VALUE FROM lla_audit.
INVALID DISPATCHED MESSAGE.
CAN'T RELEASE THE INCORE DATA BASE.
CAN'T RELEASE THE DISK DATA BASE.
CAN'T UNLOCK INCORE DATA BASE.
setid_rec CORRECTED.
lla_gtrid FAILURE.
INVALID SET TYPE.
CAN'T LOCK THE INCORE DATA BASE.
NONCORRECTABLE INTERNAL STRUCTURE.
CAN'T ATTACH TO INCORE DATA BASE.
lla_ainit FAILURE.
CAN'T UNLINK DISK DATABASE.
INVALID EXECUTION MODE.
INVALID AUDIT MEMBER NUMBER.
CAN'T ATTACH TO PRIMARY DISK DATA BASE.
lla_opensq FAILURE.
CAN'T GET setid_rec.
lla_rdget FAILURE.
lla_uprid FAILURE.
lla_opnset FAILURE.
lla_seqset FAILURE.
CAN'T OPEN /etc/pmdb
CAN'T OPEN /etc/pmdb.aud
INVALID DISK NAME.
INVALID AUDIT TYPE.
FAIL TO WRITE INCORE DATA BASE TO DISK.
fstat FAILURE.
FAIL TO WRITE DISK DATA BASE TO INCORE.
plib FAILURE.
makeseg FAILURE.
msgenab FAILURE.
CAN'T RECEIVE THE MESSAGE FROM SIM.
INTERNAL STRUCTURE CORRECTED.  SEE /etc/log/pmsaud.
CANNOT ATTACH TO SECONDARY DISK DATABASE
CANNOT falloc DISK DATABASE
RESTORED INCORE DATABASE FROM DISK
```

SEE PROPRIETARY NOTICE ON COVER PAGE

Table 1 - PMSAUD Messages

PRIMARY DISK DATABASE IS BAD
SECONDARY DISK DATABASE IS BAD
RESTORED PRIMARY DISK DATABASE
RESTORED SECONDARY DISK DATABASE
REQUESTING DEMAND AUDIT TO RECOVER

h = Explanation of error - see the Output Audit Appendix C, AUD-APPC.

i = Explanation of error - see the Output Audit Appendix D, AUD-APPD.

j = Explanation of error - see Audit Appendix B, AUD-APPB.

k = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

Format 1 indicates success. Take no action.

Format 2 is an informational message that the audit has stopped. Take no action.

Format 3 indicates that the audit aborted. The action to be taken varies from retrying the audit to seeking technical advice, depending on the abort code.

Formats 4, 5, and 6 indicate that and error has been found in the audit of the PMS. Look up the error code as described in the variable field description section. Action to be taken varies depending on the error code.

Format 7 indicates that the audit can not be started at this time. Action to be taken varies from retrying the audit to seeking technical advice, depending on the reason for failure. See the Output Audit Appendix C, AUD-APPC, and Output Audit Appendix D, AUD-APPD.

Format 8 indicates the inhibit status of the PMS audit. Take no action.

5. ALARMS

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys
Format 1 has an OMDB Key of 78.
Formats 2 and 3 have an OMDB Key of 76.
Format 4 has an OMDB Key of 52.
Format 5 has an OMDB Key of 64.
Format 6 has an OMDB Key of 210.
Format 8 has an OMDB Key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD
LLA-APPA

Input Messages
AUD:PMS
OP:AUD
STOP:AUD
STP:AUD

Output Message
OP-AUD

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . AUD-PMS-C
GENERIC . . . . . UNIX RTR R21.3, R21.19 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `AUD ENV=RTR PMS` *a* `COMPLETED`
b `ERRORS FOUND`
c `ERRORS CORRECTED`

[2] `AUD ENV=RTR PMS` *a* `STOPPED`

[3] `AUD ENV=RTR PMS` *a* `ABORTED CODE` *d*

[4] `AUD ENV=RTR PMS` *a* `ERROR` *e* `{CORR | NOT CORR}`
`REPORT {STARTED | IN PROGRESS | COMPLETED}`
`DATA 1 X'00000000 DATA 2 X'00000000`
`DATA 3 X'00000000 DATA 4 X'00000000`

`[NO SUPPLEMENTARY DATA]`

[5] `AUD ENV=RTR PMS` *a* `ERROR` *e* `{CORR | NOT CORR}`
`REPORT {STARTED | IN PROGRESS | COMPLETED}`
`{SUPPLEMENTARY DATA BLOCK NUMBER` *f*
`| SUPPLEMENTARY DATA FILE}`
g

[6] `AUD ENV=RTR PMS` *a* `ERROR` *e* `{CORR|NOT CORR} REPORT`
`{STARTED | IN PROGRESS | COMPLETED}`
`SUPPLEMENTARY DATA FROM OMDB`
g

[7] `AUD PMS NOT STARTED`
`{CONFLICT WITH CURRENT SYSTEM STATUS` *h*
`|RETRY LATER` *i*
`|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *j*`}`

[8] `AUD ENV=RTR PMS` *a* `AUTOMATICALLY` *k*

2. REASON FOR OUTPUT

Format 1 indicates the input message completed, how many errors were found, and how many were corrected.

Format 2 indicates the audit stopped.

Format 3 indicates the audit aborted.

Formats 4, 5, and 6 indicate that an error has been found in the audit of the plant measurement database (PMS).

Format 7 indicates that the audit can not be started at this time.

Format 8 indicates the inhibit status of the PMS audit.

3. VARIABLE FIELD DEFINITIONS

a = Audit member number. One of the following:

- 1 — Manual, routine, or demand audit.
- 2 — Create the data base.

b = Total number of errors found.

c = Total number of errors corrected.

d = Abort code. Possible values are:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — SIM could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.
- 8 — SIM aborted an executing routine audit because of a blocking request.
- 9 — Transient process that was running the process terminated.
- 10 — A segmented audit exceeded an error threshold.
- 12 — Audit rejected the request to run from SIM.
- 13 — SIM aborted an executing audit because the audit system is being reinitialized.

e = Error code (0-5034). See CIP 254-303-106 *System Maintenance Manual*, Plant Measurements System (PMS) Audits chapter, for error codes 0-3, 1000, 1001, or 2000-5034. See LLA Output Appendix, LLA-APPA, for error codes 100-1301.

f = Supplementary data block number.

g = An explanation of the error identified by the error code. If the error code is 0-3, 1000, 1001, or 2000-5034, see Table 1. If the error code is 100-1301, see LLA Output Appendix, LLA-APPA.

Table 1 - PMSAUD Messages

```
lcall FAILURE.
```

Table 1 - PMSAUD Messages

```
FATAL, CAN'T CREATE NEW DATA BASE.
FATAL, CAN'T COPY NEW DISK DATA BASE TO INCORE.
NEW DATA BASE CREATED.
setid_rec MUTILATED.
FATAL, INCORE AND DISK DATA BASES MUTILATED,
NEW DATA BASE WILL BE CREATED.
INVALID RETURN VALUE FROM lla_audit.
INVALID DISPATCHED MESSAGE.
CAN'T RELEASE THE INCORE DATA BASE.
CAN'T RELEASE THE DISK DATA BASE.
CAN'T UNLOCK INCORE DATA BASE.
setid_rec CORRECTED.
lla_gtrid FAILURE.
INVALID SET TYPE.
CAN'T LOCK THE INCORE DATA BASE.
NONCORRECTABLE INTERNAL STRUCTURE.
CAN'T ATTACH TO INCORE DATA BASE.
lla_ainit FAILURE.
CAN'T UNLINK DISK DATABASE.
INVALID EXECUTION MODE.
INVALID AUDIT MEMBER NUMBER.
CAN'T ATTACH TO PRIMARY DISK DATA BASE.
lla_opensq FAILURE.
CAN'T GET setid_rec.
lla_rdget FAILURE.
lla_uprid FAILURE.
lla_opnset FAILURE.
lla_seqset FAILURE.
CAN'T OPEN /etc/pmdb
CAN'T OPEN /etc/pmdb.aud
INVALID DISK NAME.
INVALID AUDIT TYPE.
FAIL TO WRITE INCORE DATA BASE TO DISK.
fstat FAILURE.
FAIL TO WRITE DISK DATA BASE TO INCORE.
plib FAILURE.
makeseg FAILURE.
msgenab FAILURE.
CAN'T RECEIVE THE MESSAGE FROM SIM.
INTERNAL STRUCTURE CORRECTED.  SEE /etc/log/pmsaud.
CANNOT ATTACH TO SECONDARY DISK DATABASE
CANNOT falloc DISK DATABASE
RESTORED INCORE DATABASE FROM DISK
```

SEE PROPRIETARY NOTICE ON COVER PAGE

Table 1 - PMSAUD Messages

PRIMARY DISK DATABASE IS BAD
SECONDARY DISK DATABASE IS BAD
RESTORED PRIMARY DISK DATABASE
RESTORED SECONDARY DISK DATABASE
REQUESTING DEMAND AUDIT TO RECOVER
/etc/pmdb HAS AN INCORRECT FILE TYPE
/etc/pmdb HAS A FILESIZE MISMATCH
CANNOT READ /etc/pmdb

h = Explanation of error - see the Output Audit Appendix C, AUD-APPC.

i = Explanation of error - see the Output Audit Appendix D, AUD-APPD.

j = Explanation of error - see Audit Appendix B, AUD-APPB.

k = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

Format 1 indicates success. Take no action.

Format 2 is an informational message that the audit has stopped. Take no action.

Format 3 indicates that the audit aborted. The action to be taken varies from retrying the audit to seeking technical advice, depending on the abort code.

Formats 4, 5, and 6 indicate that and error has been found in the audit of the PMS. Look up the error code as described in the variable field description section. Action to be taken varies depending on the error code.

Format 7 indicates that the audit can not be started at this time. Action to be taken varies from retrying the audit to seeking technical advice, depending on the reason for failure. See the Output Audit Appendix C, AUD-APPC, and Output Audit Appendix D, AUD-APPD.

Format 8 indicates the inhibit status of the PMS audit. Take no action.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None.

6. REFERENCES

OMDB Keys

Format 1 has an OMDB Key of 78.
Formats 2 and 3 have an OMDB Key of 76.
Format 4 has an OMDB Key of 52.
Format 5 has an OMDB Key of 64.
Format 6 has an OMDB Key of 210.
Format 8 has an OMDB Key of 558.

Output Appendixes

AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD
LLA-APPA

Input Messages

AUD:PMS
OP:AUD
STOP:AUD
STP:AUD

Output Message

OP-AUD

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . AUD-PROAD-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD PROAD 1 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD PROAD 1 STOPPED`

[3] `AUD PROAD 1 ABORTED CODE` *c*

[4] `AUD PROAD 1 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD PROAD NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD PROAD 1 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the process administration audit and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.

SEE PROPRIETARY NOTICE ON COVER PAGE

8 — SIM aborted an executing routine audit because of a blocking request.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Values 100-399 represent errors which occur during process termination. In particular, values 100-199 occur in the scheduler, 200-299 in the capability manager, 300-399 in the process manager. Values 500-799 represent errors which occur during process creation. In particular, values 500-599 represent errors during pcreat of kernel processes, 600-699 represent errors during pcreat of supervisor processes, and 700-799 represent errors during process fork. Value 800 indicates that the process has been suspended from execution for over 30 minutes.

A problem occurred during or after:

100 — The use count was decremented.
110 — term_dct was called.
120 — GRASP/DART was informed.
130 — The DCTE was unlinked from its dispatch chain.
140 — The address translation buffers (ATBs) were flushed.
150 — The acknowledgement message was allocated and copied.
160 — The dispatch control table entry (DCTE) was unlinked from the ready / notready list.
170 — The incarnation count was bumped.
180 — The message has (or should have) gone to the capability manager.
190 — The message has (or should have) gone to the process manager.
200 — The capabilities were removed.
210 — The segments were removed (supervisor).
220 — The segments were removed (kernel process).
300 — The core dump has started.
310 — The message was sent to the capability manager.
500 — pcreat has started (kp).
510 — DCTE was linked.
520 — Initialization event sent.
600 — pcreat has started (sp).
610 — DCTE was linked.
620 — The pstart has completed.
630 — Execute started.
700 — fork started (pfork1).
710 — DUPCAPS message sent to the file manager.
720 — pfork2 started.
730 — Sending the wake up event to the child.
800 — Process has been suspended from execution.

e = Process's utility ID.

SEE PROPRIETARY NOTICE ON COVER PAGE

f = Value of the real time clock at the start of the audit.

g = Process number.

h = Time stamp.

i = Explanation of error - see the Output Audit Appendix C, AUD-APPC.

j = Explanation of error - see the Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.

ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:PROAD
OP:AUD

Output Message
OP-AUD

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . AUD-PROAD-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR PROAD 1 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD ENV=RTR PROAD 1 STOPPED`

[3] `AUD ENV=RTR PROAD 1 ABORTED CODE` *c*

[4] `AUD ENV=RTR PROAD 1 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD PROAD NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD ENV=RTR PROAD 1 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the process administration audit and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System integrity monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered between the audit control and the audit library interface.
7 — Audit exceeded its timeout or segment limit.

SEE PROPRIETARY NOTICE ON COVER PAGE

8 — SIM aborted an executing routine audit because of a blocking request.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Values 100-399 represent errors that occur during process termination. In particular, values 100-199 occur in the scheduler, 200-299 in the capability manager, and 300-399 in the process manager. Values 500-799 represent errors that occur during process creation. In particular, values 500-599 represent errors during pcreat of kernel processes, 600-699 represent errors during pcreat of supervisor processes, and 700-799 represent errors during process fork. Value 800 indicates that the process has been suspended from execution for over 30 minutes.

A problem occurred during or after:

100 — The use count was decremented.
110 — `term_dct` was called.
120 — GRASP or DART was informed.
130 — The DCTE was unlinked from its dispatch chain.
140 — The address translation buffers (ATBs) were flushed.
150 — The acknowledgement message was allocated and copied.
160 — The dispatch control table entry (DCTE) was unlinked from the ready or notready list.
170 — The incarnation count was bumped.
180 — The message has (or should have) gone to the capability manager.
190 — The message has (or should have) gone to the process manager.
200 — The capabilities were removed.
210 — The segments were removed (supervisor).
220 — The segments were removed (kernel process).
300 — The core dump has started.
310 — The message was sent to the capability manager.
500 — pcreat has started (kp).
510 — DCTE was linked.
520 — Initialization event sent.
600 — pcreat has started (sp).
610 — DCTE was linked.
620 — The pstart has completed.
630 — Execute started.
700 — fork started (pfork1).
710 — DUPCAPS message sent to the file manager.
720 — pfork2 started.
730 — Sending the wake up event to the child.
800 — Process has been suspended from execution.

e = Process's utility ID.

SEE PROPRIETARY NOTICE ON COVER PAGE

f = The amount of time, in milliseconds, that the process has been stuck.

g = Process number.

h = Correction completion code. Possible values are:

- `00000000` — The error was corrected, or the audit was run in non-correcting mode.
- `00000010` — The DCT pointer failed fault retry validation when trying to send a DUPCAPS message.
- `00000020` — The DCT extender pointer failed fault retry validation when trying to send a DUPCAPS message.
- `00000030` — The PCB segid in the process's DCT entry was found to be invalid when trying to send a DUPCAPS message.
- `00000040` — The audit could not attach to the process's PCB when trying to send a DUPCAPS message.
- `00000050` — The audit could not allocate a DUPCAPS message.
- `00000060` — The audit could not queue a DUPCAPS message.
- `00000070` — The DCT pointer failed fault retry validation when trying to send a terminate message.
- `00000080` — The DCT extender pointer failed fault retry validation when trying to send a terminate message.
- `00000090` — The audit could not allocate a terminate message to kill a suspended process.
- `000000a0` — The audit could not queue a terminate message to kill a suspended process.
- `000000b0` — The PCB segid in the process's DCT entry was found to be invalid when trying to simulate a pcreat acknowledgement message.
- `000000c0` — The audit could not attach to the process's PCB when trying to simulate a pcreat acknowledgement message.
- `000000d0` — The audit could not allocate a pcreat message to simulate a pcreat acknowledgement message.
- `000000e0` — The audit could not queue a pcreat message to simulate a pcreat acknowledgement message.
- `000000f0` — The audit could not allocate a terminate message to kill a process.
- `00000100` — The audit could not queue a terminate message to kill a process.

i = Explanation of error - see the Output Audit Appendix C, AUD-APPC.

j = Explanation of error - see the Output Audit Appendix D, AUD-APPD.

k = Explanation of error - see Audit Appendix B, AUD-APPB.

l = Inhibit status. Possible values are:

INHIBITED — Audit has been automatically inhibited by SIM.
ALLOWED — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, AUD-APPA and Output Audit Appendix B, AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in non-correcting mode and failures occur, rerun the audit in correcting mode.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
AUD:PROAD
OP:AUD

Output Message
OP-AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

Practice 254-341-235 *Audit Facilities Description 3B20D Model 2 Processor*

CIP 254-303-106 *Lucent technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . AUD-PROAD-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `AUD ENV=RTR PROAD 1 COMPLETED`
a `ERRORS FOUND`
b `ERRORS CORRECTED`

[2] `AUD ENV=RTR PROAD 1 STOPPED`

[3] `AUD ENV=RTR PROAD 1 ABORTED CODE` *c*

[4] `AUD ENV=RTR PROAD 1 ERROR` *d* {`CORR` | `NON CORR`}
`REPORT` {`STARTED` | `IN PROGRESS` | `COMPLETED`}
`DATA1 X'`*e* `DATA2 X'`*f*
`DATA3 X'`*g* `DATA4 X'`*h*

`[NO SUPPLEMENTARY DATA]`

[5] `AUD PROAD NOT STARTED`
{`CONFLICT WITH CURRENT SYSTEM STATUS` *i*
|`RETRY LATER` *j*
|`UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR` *k*}

[6] `AUD ENV=RTR PROAD 1 AUTOMATICALLY` *l*

2. REASON FOR OUTPUT

To report the termination status of the process administration audit and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Possible values are:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System integrity monitor (SIM) could not start or dispatch the audit.
- 6 — An error was encountered between the audit control and audit library interface.
- 7 — Audit exceeded its timeout or segment limit.
- 8 — SIM aborted an executing routine audit because of a blocking request.
- 12 — Audit rejected the request to run from SIM.
- 13 — SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Values `100-399` represent errors that occur during process termination. In particular, values `100-199` occur in the scheduler, `200-299` in the capability manager, and `300-399` in the process manager. Values `500-799` represent errors that occur during process creation. In particular, values `500-599` represent errors during pcreat of kernel processes, `600-699` represent errors during pcreat of supervisor processes, and `700-799` represent errors during process fork. Value `800` indicates that the process has been suspended from execution for over 30 minutes.

A problem occurred during or after:

- 100 — The use count was decremented.
- 110 — `term_dct` was called.
- 120 — GRASP or DART was informed.
- 130 — The DCTE was unlinked from its dispatch chain.
- 140 — The address translation buffers (ATBs) were flushed.
- 150 — The acknowledgement message was allocated and copied.
- 160 — The dispatch control table entry (DCTE) was unlinked from the ready or notready list.
- 170 — The incarnation count was bumped.
- 180 — The message has (or should have) gone to the capability manager.
- 190 — The message has (or should have) gone to the process manager.
- 200 — The capabilities were removed.
- 210 — The segments were removed (supervisor).
- 220 — The segments were removed (kernel process).
- 300 — The core dump has started.
- 310 — The message was sent to the capability manager.
- 500 — `pcreat` has started (kp).
- 510 — DCTE was linked.
- 520 — Initialization event sent.

SEE PROPRIETARY NOTICE ON COVER PAGE

600 — pcreat has started (sp).
610 — DCTE was linked.
620 — The pstart has completed.
630 — Execute started.
700 — fork started (pfork1).
710 — DUPCAPS message sent to the file manager.
720 — pfork2 started.
730 — Sending the wake up event to the child.
800 — Process has been suspended from execution.

e = Process's utility ID.

f = The amount of time, in milliseconds, that the process has been stuck.

g = Process number.

h = Correction completion code. Possible values are:

00000000 — The error was corrected, or the audit was run in non-correcting mode.
00000010 — The DCT pointer failed fault retry validation when trying to send a DUPCAPS message.
00000020 — The DCT extender pointer failed fault retry validation when trying to send a DUPCAPS message.
00000030 — The PCB segid in the process's DCT entry was found to be invalid when trying to send a DUPCAPS message.
00000040 — The audit could not attach to the process's PCB when trying to send a DUPCAPS message.
00000050 — The audit could not allocate a DUPCAPS message.
00000060 — The audit could not queue a DUPCAPS message.
00000070 — The DCT pointer failed fault retry validation when trying to send a terminate message.
00000080 — The DCT extender pointer failed fault retry validation when trying to send a terminate message.
00000090 — The audit could not allocate a terminate message to kill a suspended process.
000000a0 — The audit could not queue a terminate message to kill a suspended process.
000000b0 — The PCB segid in the process's DCT entry was found to be invalid when trying to fake a pcreat acknowledgement message.
000000c0 — The audit could not attach to the process's PCB when trying to fake a pcreat acknowledgement message.
000000d0 — The audit could not allocate a pcreat message to fake a pcreat acknowledgment message.

SEE PROPRIETARY NOTICE ON COVER PAGE

`000000e0` — The audit could not queue a pcreat message to fake a pcreat acknowledgment message.
`000000f0` — The audit could not allocate a terminate message to kill a process.
`00000100` — The audit could not queue a terminate message to kill a process.

i = For explanation of error, see the Output Audit Appendix C, `AUD-APPC`.

j = For explanation of error, see the Output Audit Appendix D, `AUD-APPD`.

k = Explanation of error - see Audit Appendix B, `AUD-APPB`.

l = Inhibit status. Possible values are:

`INHIBITED` — Audit has been automatically inhibited by SIM.
`ALLOWED` — Audit has been automatically allowed by SIM.

NOTE: See Output Audit Appendix A, `AUD-APPA` and Output Audit Appendix B, `AUD-APPB`, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in non-correcting mode and failures occur, rerun the audit in correcting mode.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 78.
Formats 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 6 has an OMDB key of 558.

Output Appendixes
`AUD-APPA`
`AUD-APPB`
`AUD-APPC`
`AUD-APPD`

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages
AUD:PROAD
OP:AUD

Output Message
OP-AUD

Practice 254-341-235 *Audit Facilities Description 3B20D Model 2 Processor*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . CFR-DUPLEXDISKS
GENERIC . . . . . UNIX RTR R21.27 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `CFR DUPLEXDISKS STOPPED WITH ERROR` *a*

[2] `CFR DUPLEXDISKS COMPLETED`

2. REASON FOR OUTPUT

To report the result of executing the `CFR:DUPLEXDISKS` command.

3. VARIABLE FIELD DEFINITIONS

a = Type of error found.

`X'C000` — ABD is not active

The system is not booted with an Alternate Boot Disk(ABD) selected. MHD 0 and MHD 1 are the current duplexed boot disk pair.

`X'C001` — Failed to get UCB for the current duplexed boot disk pair.

An internal error occurred trying to read the in-core ECD. Additional information is provided by PRMs generated by EIH.

`X'C002` — An invalid state was detected.

If MHD 0 is one of the current duplexed boot disks, it's state must be ACT. MHD 1 and the Alternate Boot Disk must not be in the ACT, STBY, or INIT states.

If MHD 1 is one of the current duplexed boot disks, it's state must be ACT. MHD 0 and the Alternate Boot Disk must not be in the ACT, STBY, or INIT states.

`X'C003` — A failure occurred trying to configure the duplex boot disk pair to the system default.

SEE PROPRIETARY NOTICE ON COVER PAGE

An internal error occurred trying to configure the duplex boot disk pair to MHD 0 and MHD 1. Additional information is provided by PRMs generated by EIH.

`X'C004` — Disk Driver not notified of change.

The 120 Status Page will not show the correct disk status.

`X'C005` — RTS not notified of change.

The 102 Status Page will not show the correct disk configuration.

`X'C006` — This command is only supported on the 3B21D Hardware Platform.

`X'C007` — At least one of MHD 0, MHD 1, or the ABD is reserved by another process.

4. ACTION TO BE TAKEN

If Format 1 is printed, resolve the error condition described above. Seek technical assistance if necessary to resolve the error condition.

Format 2 indicates that the command completed execution successfully. If this format is printed, no action is necessary.

5. ALARMS

None.

6. REFERENCES

OMDB Key(s):
Format 1 has an OMDB key of 774.
Format 2 has an OMDB key of 773.

Input Messages

```
CFR:DUPLEXDISKS
```

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . CLR-EMERDMP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
CLR EMERDMP COMPLETED
```

2. REASON FOR OUTPUT

To report the termination status of the `CLR:EMERDMP` input message.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

None. This message is for information only.

5. ALARMS

None.

6. REFERENCES

Input Messages

`COPY:T;EMERDMP`
`OP:EMERSTAT`

Output Message

`REPT-EMER,DUMP`

ID . . . . . CLR-F,DIR
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `CLR FILESYS DIR COMPLETED`

[2] `CLR FILESYS DIR STOPPED`
a

2. REASON FOR OUTPUT

To report the result of executing the `CLR:F;DIR` input message to remove a directory.

3. VARIABLE FIELD DEFINITIONS

a = The description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success. If this format is printed, no action is necessary.

If Format 2 is printed, the explanatory text will indicate the error encountered. Verify that the command which was input is consistent with the `CLR:F;FILE` input message manual page and, using the `OP:ST;LSTDIR` input message, verify that the file exists with the appropriate permissions. If both of these checks fail to uncover the problem, or the description of the error encountered is not self-explanatory, seek technical assistance.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 282.
Format 2 has an OMDB key of 288.

Input Messages
`CLR:F;DIR`
`CLR:F;FILE`
`OP:ST;LSTDIR`

Output Message
`OP-ST,LSTDIR`

SEE PROPRIETARY NOTICE ON COVER PAGE

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

ID . . . . . CLR-F,FILE
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `CLR FILESYS FILE COMPLETED`

[2] `CLR FILESYS FILE STOPPED`
a

2. REASON FOR OUTPUT

To report the result of executing the `CLR:F;FILE` input message to remove a file from a directory.

3. VARIABLE FIELD DEFINITIONS

a = The description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success. If this format is printed, no action is necessary.

If Format 2 is printed, the explanatory text will indicate the error encountered. Verify that the command which was input is consistent with the `CLR:F;DIR` input message manual page and, using the `OP:ST;LSTDIR` input message, verify that the directory exists with the appropriate permissions. If both of these checks fail to uncover the problem, or the description of the error encountered is not self-explanatory, seek technical assistance.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 282.
Format 2 has an OMDB key of 288.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
ALW:F;ACCESS
ALW:F;MOUNT
CLR:F;DIR
CLR:F;FILE
INH:F;UNMOUNT
OP:ST;LSTDIR
```

Output Message

```
OP-ST,LSTDIR
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

ID . . . . . CLR-FANALM
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `CLR FANALM UNIT` *a* `PT` *b*[*bbb*] *f*

[2] `CLR FANALM GRPN` *c* `DUPID` *d* `PT` *e*[*eee*] *f*

[3] `CLR FANALM NOT STARTED`
`CONFLICT WITH CURRENT SYSTEM STATUS`

2. REASON FOR OUTPUT

To indicate the result of a fan alarm reset operation requested by a `CLR:FANALM` input message.

Format 1 identifies a distribute point by physical location.

Format 2 identifies a distribute point by logical address.

Format 3 indicates the scanner and signal distributor (SCSD) administration process is not active. No communication with SCSD points is possible.

3. VARIABLE FIELD DEFINITIONS

a = Member number of scanner and signal distributor (SCSD) unit.

b = Physical scan point number on an SCSD (0-31).

c = Logical group name.

d = Duplex group ID (0 or 1).

e = Number of a point within a logical group.

f = Termination status:

`FAILED` — Action could not be completed by SCSD administrator.

Possible reasons for failure are:

— SCSD unit number is invalid.

— Point number is invalid for the logical group.

SEE PROPRIETARY NOTICE ON COVER PAGE

— Logical group name is invalid and either the SCSD unit is out-of-service (OOS) or is in an inactive state to the SCSD administrator.

`COMPLETED` — Action completed.

4. ACTION TO BE TAKEN

Issue the `OP:OOS` input message to determine if the SCSD unit is listed as out-of-service. Otherwise, enter recent change and verify (RC/V) to verify input message arguments.

If logical addressing is used, check that the logical group name exists, and/or that the point number is contained in the logical group. If physical addressing is used, verify that the SCSD unit is equipped.

If the above results are negative, seek technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 229.

Input Messages
`CLR:FANALM`
`OP:OOS`

Output Messages
`REPT-FF,MULTI`
`REPT-FF,SING`

Practice 254-341-110 *DMERT Kernel and Basic Services Software Subsystem Description 3B20D Processor*

ID . . . . . CLR-IMCAT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1]
```
CLR IMCAT COMPLETED
```

[2]
```
CLR IMCAT NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS -
 FILE 1 SEGMENT
```

2. REASON FOR OUTPUT

To report the termination status of the `CLR:IMCAT` input message.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

If Format 2 is output, check the status of the file `/cft/shl/imcatlg`.

5. ALARMS

None.

6. REFERENCES

Input Message
`CLR:IMCAT`

ID . . . . . CLR-IODRV
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `CLR IODRV {COMPLETED|ABORTED}`

[2]
```
CLR IODRV NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS
```

2. REASON FOR OUTPUT

To report the result of executing a `CLR:IODRV` input message.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

If the message reads `ABORTED`, the command could not be processed due to a conflict with the system status. The command will not be successfully processed until the system status changes. Check system status to determine why command aborted.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Format 1 has an OMDB key of 159.

Input Message
`CLR:IODRV`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . CLR-IOMEM
GENERIC . . . . . UNIX RTR R21.27 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

[1] `CLR IOMEM STARTED`

[2] `CLR IOMEM ABORTED` *a*

[3] `CLR IOMEM COMPLETED` *b*

2. REASON FOR OUTPUT

To report the result of executing a `CLR:IOMEM` input message.

3. VARIABLE FIELD DEFINITIONS

a = Reason why the CLR IOMEM command was aborted.

7 — Message to IODRV port failure.
8 — Message reception failure from IODRV.
9 — Message to IODRV timed out.

b = Action taken by the IODRV.

0 — Specified file was found and released by the IODRV.
1 — Specified file has already been released by the IODRV or was never cached by the IODRV.
2 — Specified file was found and unlocked and will be released by the IODRV.

4. ACTION TO BE TAKEN

No action is required for `STARTED` or `COMPLETED` messages.

`ABORTED` messages usually indicate that a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

Input Message
`CLR:IOMEM`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . CLR-M,MAEC
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has seven formats.

[1] `CLR MHD` *a* `MAEC STARTED`

[2] `CLR MHD` *a* `MAEC IN PROGRESS`

[3] `CLR MHD` *a* `MAEC NOT STARTED` *b c*

[4] `CLR MHD` *a* `MAEC STOPPED` *b c*

[5] `CLR MHD` *a* `MAEC ERROR` *b c*

[6] `CLR MHD` *a* `MAEC ABORTED` *b*

[7] `CLR MHD` *a* `MAEC COMPLETED`

2. REASON FOR OUTPUT

To report the result of executing a `CLR:MHD;MAEC` command.

Format 1 indicates the command was started successfully.

Format 2 indicates command execution is in progress.

Format 3 indicates a system resource was not available, and command execution was discontinued.

Formats 4, 5, and 6 indicate the command encountered an error condition of some type, and command execution was halted.

Format 7 indicates the command completed successfully.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Process step or reason code.

`f03` — cannot open ECD
`f06` — cannot get UCB of unit by name
`f09` — cannot reserve UCB
`f0c` — cannot assign special device file name

SEE PROPRIETARY NOTICE ON COVER PAGE

`f0f` — cannot open special device file
`f12` — cannot set i/o mode of special device file
`f15` — cannot enable message reception
`f18` — see DKDRV error report on ROP
`f1b` — message to port failure
`f1e` — message reception failure
`f21` — process timed out
`f24` — failed to close special device file
`f27` — failed to release special device file
`f2a` — failed to unreserve UCB of unit
`f2d` — failed to close ECD
`f30` — terminated externally with signal

c = System error code number. See System Error Codes Output Appendix, `SYSERR-APP`.

4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable, to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried.

Format 6 indicates that the command was aborted either because the process timed out or because the disk driver could not clear the media access error counter (MAEC) for the specified MHD. In either case, the input request should be retried. If the error condition continues, seek technical assistance from the next level of support.

A termination report specifying completion indicates that all directives of the input request were done, and no failures were encountered.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
This message has an OMDB key of 621.

Output Appendix
`SYSERR-APP`

Output Message
`REPT-DKDRV`

SEE PROPRIETARY NOTICE ON COVER PAGE

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . CLR-PTN
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `CLR PTN CLEARING` *a* `ON MHD` *b*

[2] `CLR PTN ON MHD` *b* `COMPLETED`

[3] `CLR PTN STOPPED WITH ERROR CODE` *c* `ERRNO` *d*`[,(`*e*`)]`

2. REASON FOR OUTPUT

To report the result of executing a `CLR:PTN` input message, and to provide status information.

3. VARIABLE FIELD DEFINITIONS

a = Path name of partition being initialized with zeroes.

b = Specifies disk unit containing backup disk copy with application partitions cleared.

c = Error code indicating error that caused process to terminate. The first three digits indicate the nature of the error. The last two digits (represented as *xx*) indicate which module the error occurred in.

`101`*xx* — Missing arguments.

`102`*xx* — Destination disk does not exist.

`103`*xx* — Destination disk is not active.

`104`*xx* — Mate of destination disk does not exist.

`105`*xx* — Mate of destination disk is not active.

`106`*xx* — Specification file (see *e*) does not exist.

`107`*xx* — Duplicate partitions in specification file.

`108`*xx* — File name (see *e*) in specification file is not a partition.

`109`*xx* — File name (see *e*) in specification file does not exist.

`110`*xx* — Partition specified (see *e*) does not exist in destination disk.

`111`*xx* — File name (see *e*) in specification file does not have any entry in the volume table of contents (VTOC) (it may be a block device but not a partition).

SEE PROPRIETARY NOTICE ON COVER PAGE

112*xx* — Specification file (see *e*) is empty.

113*xx* — Process was stopped by a termination (SIGTERM) signal.

114*xx* — Partition (see *e*) is not an application partition. This partition needs to be set with correct flag in the VTOC.

Errors associated with system calls:

201*xx* — The `open()` failed to open *e*.

202*xx* — `mknod()` failed to create special device file *e* (temporary file to read VTOC from disk).

203*xx* — `read()` failed to read file *e*.

204*xx* — `mkseg()` failed to allocate one segment of memory.

205*xx* — `lseek()` failed to change offset (see *e*) in out of service disk.

206*xx* — `setio()` failed to set physical IO for *e*.

207*xx* — `write()` failed on segment *e* (on partition being cleared).

208*xx* — `ugucbn()` failed to get unit control block (UCB) information for moving head disk (MHD) *e*.

209*xx* — `ugucb()` failed to get UCB information for MHD *e*.

210*xx* — `unlink()` failed to unlink file *e*.

211*xx* — `ursvucb()` failed to reserve MHD *e*.

212*xx* — `ugsdf()` failed to access out of service (OOS) disk MHD *e*.

213*xx* — `sendpw()` failed to send message to *e*.

214*xx* — `recvw()` failed to receive message from *e*.

215*xx* — `msgenab()` failed.

216*xx* — Bad message received from maintenance input request administrator (MIRA).

217*xx* — After MIRA removed disk from service, database does not have disk as OOS.

218*xx* — `ugmamirids()` failed to get UCB record.

219*xx* — `close()` failed to close file *e*.

220*xx* — `stat()` failed on *e*.

SEE PROPRIETARY NOTICE ON COVER PAGE

d = Indicates system error code (See System Error Codes Output Appendix, SYSERR-APP).

e = Supplementary data.

4. ACTION TO BE TAKEN

Craft execution errors can be corrected by examining the procedures used for execution of the message. If any other errors occur, seek technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 191.
Format 2 has an OMDB key of 190.
Format 3 has an OMDB key of 189.

Output Appendix
SYSERR-APP

Input Message
CLR:PTN

ID . . . . . CLR-UMEM
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `CLR UMEM [UCL]` *a* `WAS` *b* `NOW` *c* *#d*

[2] `CLR UMEM COMPLETED CKT FAILURE` *#d*

2. REASON FOR OUTPUT

To report the disposition of a `CLR:UMEM` input message or to report that the process identification (PID) listed on the `INIT:UMEM` message aborted.

3. VARIABLE FIELD DEFINITIONS

`UCL` = Unconditional execution.

a = Status of the operation:

- `COMPLETED` — The trace definition has been cleared.
- `NOT STARTED` — The operation was ignored because data loss might have resulted.
- `STOPPED UCERR` — The utility circuit either does not respond or does not match the circuit present when the trace was defined.

b = State of the trace before the operation was attempted:

- `DUMPED` — The trace was not running and its data had already been dumped.
- `NEW` — The trace was not running and did not have data.
- `RUNNING` — The trace was collecting data.
- `STOPPED` — The trace was not running and did have data.

c = State of the trace after the operation was attempted.

- `RUNNING` — The trace is collecting data.
- `STOPPED` — The trace is stopped and does contain data.
- `UNDEF` — No trace is defined.

d = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If *a* is NOT STARTED, the trace must be in the NEW or DUMPED state in order to be cleared. Use the INH:UMEM and/or the OP:UMEM input messages before reissuing the CLR:UMEM input message.

If *a* is STOPPED UCERR, check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 496.
Format 2 has an OMDB key of 504.

Input Messages
CLR:UMEM
INH:UMEM
INIT:UC
INIT:UMEM
OP:UMEM
OP:UTIL

Output Message
OP-UTIL

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . CLR-UTIL
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`CLR UTIL` [*a*] *b #c*

2. REASON FOR OUTPUT

To report the status of a `CLR:UTIL` input message to remove all breakpoints and their definitions.

3. VARIABLE FIELD DEFINITIONS

a = Numeric identifier (one or more decimal digits) for a breakpoint being removed. Only printed if *b* is `STOPPED NGINST`.

b = Status of the operation:

`COMPLETED` — Printed to indicate the termination of the message.

`STOPPED NGINST` — A software breakpoint instruction was not found at the breakpoint address as expected. The breakpoint definition was removed.

`STOPPED UCERR` — The operation was completed for software breakpoints, but the utility circuit either does not respond or does not match the circuit present when the hardware breakpoints were defined.

c = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If *b* is `STOPPED UCERR`, check the utility circuit hardware. After it is fixed, use the `INIT:UC` input message to reinitialize the circuit.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
There are OMDB keys of 494 and 502.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
ALW:UTIL
CLR:UTIL
INIT:UC
OP:UTIL
WHEN:PID
WHEN:UID
```

Output Message

```
OP-UTIL
```

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . CLR-UTILFLAG
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `CLR UTILFLAG` *a b #c*

[2] `CLR UTILFLAG` *a* `COMPLETED CKT FAILURE`

2. REASON FOR OUTPUT

To report the status of a `CLR:UTILFLAG` input message to remove a specific generic access package (GRASP) breakpoint and its definition, or report the removal of a breakpoint as required by system conditions.

3. VARIABLE FIELD DEFINITIONS

a = Numeric identifier (one or more decimal digits) for the breakpoint being removed.

b = Status of the operation:

`COMPLETED` — The action was successfully completed.
`STOPPED NGINST` — A software breakpoint instruction was not found at the breakpoint address as expected. The breakpoint definition was removed.
`STOPPED UCERR` — The utility circuit either does not respond, or does not match the circuit present when the breakpoint was defined.

c = GRASP execution sequence number.

4. ACTION TO BE TAKEN

If *b* is `STOPPED UCERR`, check the utility circuit hardware. After it is fixed, use the `INIT:UC` input message to reinitialize the circuit.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key
Format 2 has an OMDB key of 505.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
CLR:UTILFLAG
INIT:UC
OP:UTIL
WHEN:PID
WHEN:UID
```

Output Message

```
OP-UTIL
```

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . CMPR-D,CORE
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] [*b* | *c*]
`CMPR DISK CORE COMPLETED`
[*a*]

[2] [*b* | *c* | *d* | *e*]
`CMPR DISK CORE STOPPED`

2. REASON FOR OUTPUT

To report the result of a `CMPR:D;CORE` input message to compare the text (`.text`, `.patch00`, and `.tv`) portions of the disk and core images.

Format 1 reports a successful comparison of the disk and core images.

Format 2 reports an unsuccessful comparison.

3. VARIABLE FIELD DEFINITIONS

a = [`BP NUMBER` *g* `AT` *h*]
`DISK AND CORE ARE EQUAL FOR` *i*

b = `UNABLE TO UNMOUNT FILE PARTITION` *k*

c = `CANNOT EXEC MOP TO UNMOUNT PARTITION: ERRNO =` *j*

d = All of the following messages.

`CORE AND DISK MISMATCH FOR` *i*

`MISMATCH AT` *q* `IN SECTION` *r*

`CORE CONTENTS` *s*

`DISK CONTENTS` *t*

e = One of the following messages:

`CALL TO ALARM FAILED: ERRNO =` *j*

`CALL TO FORK FAILED: ERRNO =` *j*

CALL TO KILL TIMED OUT

CALL TO SIGNAL FAILED: ERRNO = *j*

CALL TO WAIT TIMED OUT

CANNOT ATTACH TO FLDUPD PORT

CANNOT EXEC MOP…A MOP PROCESS ALREADY EXIST

CANNOT EXEC MOP: ERRNO = *j*

CANNOT PERFORM THE COMPARISON ON A PROCESS WITH NO TEXT

CMPR COMPARES PFILE, KERNEL AND SHARED LIBRARIES

CMPR ERR *f*

CMPR RECEIVED BUS ERROR SIGNAL

CMPR RECEIVED DEATH OF CHILD SIGNAL

CMPR RECEIVED ILLEGAL INSTRUCTION SIGNAL

CMPR RECEIVED SEGMENTATION VIOLATION SIGNAL

CMPR RECEIVED TOO MANY SIGNALS

FILE FAILED TO OPEN: *i*

FILE REQUESTED MUST BE A NON-KILLABLE OR KPUPDATE TYPE

FM_OPEN I/O REQUEST FAILED

FM_SEGCODE I/O REQUEST FAILED

GETTYPE CALL FAILED

INVALID PATHNAME

KILL FAILED: ERRNO = *j*

LOCKLIB FAILED EVEN AFTER FREELIB

SEE PROPRIETARY NOTICE ON COVER PAGE

MAIN...FREELIB FAILED: *p*

MAIN...LOCKLIB FAILED: *m*

MESSAGE FAILED TO RECEIVE: *o*

MESSAGE FAILED TO SEND: *n*

MNTSTAT FAILED: UNABLE TO READ MOUNT TABLE: ERRNO = *j*

MOP PROCESS STILL ALIVE

READ ERROR ON DISK COPY

SEEK ERROR ON DISK COPY

SIGNAL FAILED: SIG = *l*

UNABLE TO CREATE COMPARE PROCESS

UNEXPECTED SIGNAL RECEIVED

WARNING: PROCESS INSTANCE DIED AFTER CMPR ATTACHED TO ITS SEGMENTS: *i*

WARNING: PROCESS INSTANCE DOES NOT EXIST OR DIED BEFORE CMPR COULD ATTACH TO ITS SEGMENTS: *i*

f = One of the following error codes.

2 — unable to 'lock out' field update
3 — process failed to end
4 — unable to read disk copy
5 — file failed to open
6 — file requested is killable
7 — specified file is too large
8 — cannot locate core image of the process
10 — no segments available in user address space
11 — unable to share an in core segment
12 — failure to change to read-only permissions
13 — could not lock disk copy in core
14 — read error on disk copy
15 — file not swabbed
16 — unable to allocate a segment
17 — failure freeing a shared segment
18 — library specified is invalid
19 — pfile specified has an invalid magic number
20 — unable to create compare process
21 — start message failed to be sent
22 — compare process still alive

SEE PROPRIETARY NOTICE ON COVER PAGE

23 — disk and core mismatch
24 — file manager open request failed
25 — file manager segcode I/O message failed
26 — call to gettype() failed
27 — bad core size in the segment map
28 — KPUPDATE process died before or during segment attach
29 — KPUPDATE process died after segment attach

g = Breakpoint number.

h = Address where the breakpoint is found.

i = Pathname of the file compared.

j = Error number (errno).

k = Name of the offline partition.

l = Signal number.

m = Return code of the `locklib` call.

n = Return code of the `sendw` call.

o = Return code of the `recvw` call.

p = Return code of the `freelib` call.

q = Address where the mismatch between disk and core is found.

r = Name of the section where the mismatch is found.

s = Sixteen bytes of core memory, taken at the point of mismatch.

t = Sixteen bytes of disk memory, taken at the point of mismatch.

4. ACTION TO BE TAKEN

For Format 1, no action is necessary.

For Format 2, seek technical assistance.

5. ALARMS

None. This output is for information only.

6. REFERENCES

Input Message
`CMPR:D;CORE`

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . CMPR-MHD-A
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has 13 formats.

[1] `CMPR MHD` *a* `STARTED`

[2] `CMPR MHD` *a* `NOT STARTED` *b c*

[3] `CMPR MHD` *a* `STOPPED` *b c*

[4] `CMPR MHD` *a* `ABORTED` *b*

[5] `CMPR MHD` *a* `ERROR` *b c*

[6] `CMPR MHD` *a* `COMPLETED`

[7]
```
CMPR MHD a {RO} IN PROGRESS
  MHD a SINGLE BLOCK READ RETRY {WORKED|FAILED}
  START DISK BLOCK = d {FAILING|END}DISK BLOCK = e
```

[8]
```
CMPR MHD a [RO] PARTITION MISMATCH
  MHD a PARTITION f OFFSET g BLOCKS d - e
  MHD h PARTITION f OFFSET g BLOCKS d - e
```

[9]
```
CMPR MHD a [RO] PARTITION SUMMARY
  MHD a PARTITION f
  MHD h PARTITION f
  MISMATCHES i IO JOBS j IO ERRORS k
  STIME l ETIME l
```

[10]
```
CMPR MHD a {RO} EARLY TERMINATED
  MHD a PARTITION f
  MHD h PARTITION f
  MISMATCHES i IO JOBS j IO ERRORS k
  STIME l ETIME l
```

[11]
```
CMPR MHD a {RO} FINAL SUMMARY
  MHD a
  MHD h
  MISMATCHES i IO JOBS j IO ERRORS k
  STIME l ETIME l
```

SEE PROPRIETARY NOTICE ON COVER PAGE

[12] `CMPR MHD` *a* {`RO`} `PARTITION BYPASSED`
`MHD` *a* `PARTITION` *f* `SIZE` *m*
`MHD` *h* `PARTITION` *f* `SIZE` *m*
`PARTITION SIZES NOT EQUAL`
`STIME` *l* `ETIME` *l*

[13] `CMPR MHD` {*a*|*h*} {`RO`} `PARTITION ACCESS FAILURE`
`MHD` {*a*|*h*} {`READ`} `FAILED`
`PARTITION` *f* `OFFSET` *g* `BLOCK` *n*

2. REASON FOR OUTPUT

To report the result of executing an `CMPR:MHD` input message. The [`RO`] is output to indicate that the `READ ONLY` option was used. `STIME` is the time the message was started. `ETIME` is used to indicate the elapsed time for a particular partition. The `ETIME` for the `FINAL` message is the total elapsed time.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the first unit of the moving head disk (MHD) drive.

b = Process step or reason code:

- b*xx* — where *xx* are hex digits - see DFC Output Appendix A, `DFC-APPA`.
- `f03` — cannot open equipment configuration database (ECD)
- `f06` — cannot get unit control block (UCB) of first unit by name
- `f09` — cannot get UCB of second unit by name
- `f12` — cannot get UCB of first unit's mate
- `f15` — cannot get UCB of first unit's mate
- `f18` — cannot reserve UCB of second unit
- `f21` — cannot assign special device file name of second unit
- `f24` — cannot open special device file of second unit
- `f27` — cannot enable message reception
- `f30` — see accompanying DKDRV error report on the ROP
- `f36` — failed to close special device file of second unit
- `f39` — failed to release special device file of second unit
- `f42` — message to port failure
- `f45` — message reception failure
- `f48` — message to port failure
- `f51` — message reception failure
- `f54` — process timed out
- `f57` — failed to close special device file of second unit
- `f60` — failed to release special device file of second unit
- `f63` — failed to unreserve UCB of second unit
- `f66` — failed to close ECD

c = System error code number; see System Error Codes Output Appendix, `SYSERR-APP`.

SEE PROPRIETARY NOTICE ON COVER PAGE

d = First disk block number (of a range) that mismatched or retried while being compared.

e = Last disk block number (of a range) that mismatched, failed, or successfully retried while being compared.

f = Partition number in use when a mismatch was encountered.

g = Offset within partition when mismatch was detected.

h = Member number of the second unit of the MHD drive.

i = Number of mismatches that were detected.

j = Number of Input/Output jobs done.

k = Number of errors detected doing I/O.

l = Time in the form hh:mm:ss, hours, minutes, and seconds.

m = Size of the partition given in disk blocks.

n = Disk block number that failed to read or write.

`ETIME` = Elapsed time for a partition to compare. For the `FINAL SUMMARY` report, the `ETIME` is the total elapsed time of all the partitions.

`RO` = Indicates that the `READ ONLY` option was selected.

`STIME` = The time the compare of the partition was started. For the `FINAL SUMMARY` report, `STIME` indicates the start time of the input message.

4. ACTION TO BE TAKEN

Noncompletion termination reports that provide an error code usually indicate a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation, and try the input request again.

Appropriate mismatch messages will be generated indicating the range of disk blocks where the mismatch occurred. A maximum of eight mismatch error messages will be output per partition. More than eight mismatch messages will result in an early termination.

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. ALARMS

This alarm is either a manually-requested report or is automatically-generated for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys
Formats 1 through 6 have OMDB keys of 119, 120, and 121.
Format 7 has an OMDB key of 122.
Format 8 has OMDB keys of 124 and 125.
Formats 9 and 10 have OMDB keys of 126 and 127.
Format 11 has OMDB keys of 130 and 131.
Format 12 has OMDB keys of 128 and 129.
Format 13 has OMDB keys of 132 and 133.

Output Appendixes
DFC-APPA
SYSERR-APP

Input Messages
DUMP:MHD;BLK
STOP:CMPR;MHD

Output Message
CMPR-MHD,PTN

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ID . . . . . CMPR-MHD-B
GENERIC . . . . . UNIX RTR R21.11 and R21.15
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has 13 formats.

[1] `CMPR MHD` *a* `STARTED`

[2] `CMPR MHD` *a* `NOT STARTED` *b c*

[3] `CMPR MHD` *a* `STOPPED` *b c*

[4] `CMPR MHD` *a* `ABORTED` *b*

[5] `CMPR MHD` *a* `ERROR` *b c*

[6] `CMPR MHD` *a* `COMPLETED`

[7]
```
CMPR MHD a {RO} IN PROGRESS
  MHD a SINGLE BLOCK READ RETRY {WORKED|FAILED}
  START DISK BLOCK = d {FAILING|END}DISK BLOCK = e
```

[8]
```
CMPR MHD a [RO] PARTITION MISMATCH
  MHD a PARTITION f OFFSET g BLOCKS d - e
  MHD h PARTITION f OFFSET g BLOCKS d - e
```

[9]
```
CMPR MHD a [RO] PARTITION SUMMARY
  MHD a PARTITION f
  MHD h PARTITION f
  MISMATCHES i IO JOBS j IO ERRORS k
  STIME l ETIME l
```

[10]
```
CMPR MHD a {RO} EARLY TERMINATED
  MHD a PARTITION f
  MHD h PARTITION f
  MISMATCHES i IO JOBS j IO ERRORS k
  STIME l ETIME l
```

[11]
```
CMPR MHD a {RO} FINAL SUMMARY
  MHD a
  MHD h
  MISMATCHES i IO JOBS j IO ERRORS k
  STIME l ETIME l
```

SEE PROPRIETARY NOTICE ON COVER PAGE

[12] `CMPR MHD` *a* {`RO`} `PARTITION BYPASSED`
`MHD` *a* `PARTITION` *f* `SIZE` *m*
`MHD` *h* `PARTITION` *f* `SIZE` *m*
`PARTITION SIZES NOT EQUAL`
`STIME` *l* `ETIME` *l*

[13] `CMPR MHD` {*a*|*h*} {`RO`} `PARTITION ACCESS FAILURE`
`MHD` {*a*|*h*} {`READ`} `FAILED`
`PARTITION` *f* `OFFSET` *g* `BLOCK` *n*

2. REASON FOR OUTPUT

To report the result of executing an `CMPR:MHD` input message. The [`RO`] is output to indicate that the `READ ONLY` option was used. `STIME` is the time the message was started. `ETIME` is used to indicate the elapsed time for a particular partition. The `ETIME` for the `FINAL` message is the total elapsed time.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the first unit of the moving head disk (MHD) drive.

b = Process step or reason code:

- b*xx* — where *xx* are hex digits - see DFC Output Appendix A, `DFC-APPA`.
- `f03` — cannot open equipment configuration database (ECD)
- `f06` — cannot get unit control block (UCB) of first unit by name
- `f09` — cannot get UCB of second unit by name
- `f12` — cannot get UCB of first unit's mate
- `f15` — cannot get UCB of first unit's mate
- `f18` — cannot reserve UCB of second unit
- `f21` — cannot assign special device file name of second unit
- `f24` — cannot open special device file of second unit
- `f27` — cannot enable message reception
- `f30` — see accompanying DKDRV error report on the ROP
- `f36` — failed to close special device file of second unit
- `f39` — failed to release special device file of second unit
- `f42` — message to port failure
- `f45` — message reception failure
- `f48` — message to port failure
- `f51` — message reception failure
- `f54` — process timed out
- `f57` — failed to close special device file of second unit
- `f60` — failed to release special device file of second unit
- `f63` — failed to unreserve UCB of second unit
- `f66` — failed to close ECD

c = System error code number; see System Error Codes Output Appendix, `SYSERR-APP`.

SEE PROPRIETARY NOTICE ON COVER PAGE

d = First disk block number (of a range) that mismatched or retried while being compared.

e = Last disk block number (of a range) that mismatched, failed, or successfully retried while being compared.

f = Partition number in use when a mismatch was encountered.

g = Offset within partition when mismatch was detected.

h = Member number of the second unit of the MHD drive.

i = Number of mismatches that were detected.

j = Number of Input/Output jobs done.

k = Number of errors detected doing I/O.

l = Time in the form hh:mm:ss, hours, minutes, and seconds.

m = Size of the partition given in disk blocks.

n = Disk block number that failed to read or write.

`ETIME` = Elapsed time for a partition to compare. For the `FINAL SUMMARY` report, the `ETIME` is the total elapsed time of all the partitions.

`RO` = Indicates that the `READ ONLY` option was selected.

`STIME` = The time the compare of the partition was started. For the `FINAL SUMMARY` report, `STIME` indicates the start time of the input message.

4. ACTION TO BE TAKEN

Noncompletion termination reports that provide an error code usually indicate a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation, and try the input request again.

Appropriate mismatch messages will be generated indicating the range of disk blocks where the mismatch occurred. A maximum of eight mismatch error messages will be output per partition. More than eight mismatch messages will result in an early termination.

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. ALARMS

This alarm is either a manually-requested report or is automatically-generated for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys
Formats 1 through 6 have OMDB keys of 119, 120, and 121.
Format 7 has an OMDB key of 122.
Format 8 has OMDB keys of 124 and 125.
Formats 9 and 10 have OMDB keys of 126 and 127.
Format 11 has OMDB keys of 130 and 131.
Format 12 has OMDB keys of 128 and 129.
Format 13 has OMDB keys of 132 and 133.

Output Appendixes
DFC-APPA
SYSERR-APP

Input Messages
DUMP:MHD;BLOCK
STOP:CMPR;MHD
STP:CMPR;MHD

Output Message
CMPR-MHD,PTN

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ID . . . . . COPY-ACTDISK
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `COPY ACTDISK ON MHD` *a* `COMPLETED`

[2] `COPY ACTDISK STOPPED WITH ERROR CODE` *b* `ERRNO` *c*`[, (`*d*`)]`

2. REASON FOR OUTPUT

To report the result of executing a `COPY:ACTDISK` input message.

3. VARIABLE FIELD DEFINITIONS

a = Disk unit to which file was copied.

b = Error code indicating error that caused process to terminate. The first three digits indicate the nature of the error; the last two (represented as xx) indicate which module the error occurred in (the information is not provided here).

`101`*xx* — Missing arguments. This error is related with the usage of the `/prc/mntfs` process. The arguments expected by this process are: `/prc/mntfs` *-d a -p b -, c -x d*. Where *a* specifies the non-active disk, *b* the target file system, *c* the directory to mount the file system, *d* the name of the process, plus arguments, to be executed. The arguments should consist of files or directory path names, including the mount directory specified in *c*.

`102`*xx* — The partition number that corresponds to the mount point of the destination file, is not the same as the destination partition number. To by pass this check, don't include the mount point in destination file name. For example, to copy `/etc/ularp` to the root file system on the non-active disk, don't specify `/etc/ularp` as the destination file; instead the name `ularp` or `/ularp` should be specified.

`103`*xx* — The source specified is not a regular file, a contiguous file (type `C` or *x*), or a block device (type *b*, a partition or file system).

`104`*xx* — Cannot find mount point for destination file. To avoid the error, exclude the mount point from the destination file path name.

`105`*xx* — The destination disk specified is not in the out-of-service

(OOS) or offline (OFL) state.

`106`*xx* — Cannot find an entry for the destination partition, in the destination disk volume table of contents (VTOC). Make sure that the partition number specified exists in the destination disk.

`107`*xx* — Bad mount directory specified. This error results from the execution of the /prc/mntfs process.

`108`*xx* — The VTOC in the destination disk is bad or does not exist.

`109`*xx* — Bad destination file specified.

`110`*xx* — Process stopped due to SIGTERM signal.

`111`*xx* — The source file specified does not exist.

`112`*xx* — Cannot find entry for the source partition on the active disk VTOC.

`113`*xx* — The destination partition is smaller than the source partition.

`114`*xx* — The partition number specified is greater than the maximum number of partitions on disk.

`115`*xx* — The destination partition does not exist in the destination disk.

Errors Associated with System Calls

`201`*xx* — The `open()` failed to open *d*.

`202`*xx* — `mknod()` failed to create *d*.

`203`*xx* — `read()` failed to read file *d*.

`204`*xx* — `mkseg()` failed to allocate one segment of memory.

`205`*xx* — `lseek()` failed to change offset (see *d*) in out of service disk.

`206`*xx* — `setio()` failed to set physical IO for *d*.

`207`*xx* — `write()` failed on segment *d*.

`208`*xx* — `ugucbn()` failed to get unit control block (UCB) information for moving head disk (MHD) *d*. This error occurs when disk unit specified does not exist.

`209`*xx* — `mount()` failed to mount partition *d*. This error occurs when partition is not a file system, or mount directory is busy.

`210`*xx* — `unlink()` failed to unlink file *d*.

`211`*xx* — `ursvucb()` failed to reserve MHD *d*. This error occurs when the disk is reserved by other process (for example, diagnostics).

`212`*xx* — `udsdf()` failed to get special device file to access MHD *d*. This error occurs when another process failed to release the special device file.

`213`*xx* — `msgport()` failed to send message to the disk driver.

`214`*xx* — `recvw()` failed to receive message from the disk driver.

`215`*xx* — `msgenab()` failed.

`216`*xx* — Bad message received from the disk driver.

SEE PROPRIETARY NOTICE ON COVER PAGE

217*xx* — Bad return code received from the disk driver. This error occurs when the entry in destination disk VTOC does not have all the fields properly set (e.g., the address for the partition may be bad).
218*xx* — `chown()` failed to change `owner` for destination file.
219*xx* — `close()` failed to close *d*.
220*xx* — `stat()` failed on *d*.
221*xx* — `plock()` failed to lock `/prc/mntfs` process in core.
222*xx* — `chmod()` failed to change mode of destination file.
223*xx* — `system()` call returned with an error code *d*.
224*xx* — `create()` failed to create the destination file, on file system in the destination disk. This error occurs when there is no more space in the file system.
225*xx* — `falloc()` failed to allocate contiguous space for a contiguous file, on the file system in the destination disk. This error occurs when the file system does not have enough contiguous space for the file to be created.
226*xx* — `ugetrec()` failed to get UCB record for destination disk MHD *a* in the ECD database.

c = Indicates system error code (see System Error Codes Output Appendix, `SYSERR-APP`).

d = Supplementary data.

4. ACTION TO BE TAKEN

User execution errors can be corrected by examining the procedures used for execution of the message. If any other errors occur, seek technical assistance.

5. ALARMS

Manual alarm. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 187.
Format 2 has an OMDB key of 186.

Output Appendix
`SYSERR-APP`

Input Message
`COPY:ACTDISK`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . COPY-ADDR
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `COPY ADDR` *a b #c*

[2] `COPY ADDR` *d* `NOT STARTED`
`CONFLICT WITH CURRENT SYSTEM STATUS` *e*

[3] `COPY ADDR` *d* `NOT STARTED`
`INVALID ID FIELD` *f*

[4] `COPY ADDR` *d* `NOT STARTED`
`RETRY LATER` *g*

2. REASON FOR OUTPUT

To report the completion of a `COPY` input message.

3. VARIABLE FIELD DEFINITIONS

a = Virtual address.

b = Termination status of the operation:

`COMPLETED` — Request successfully completed.

`NOT STARTED NGPID` — The `COPY` was stopped because the process does not exist.

`NOT STARTED NGUID` — The `COPY` was stopped because no copies of the process exist.

`STOPPED NGADDR` — The `COPY` was stopped because the address specified is not valid for the process, or invalid address values were encountered in the address chain if offsets were specified.

`STOPPED NGPROT` — The `COPY` was stopped because the destination address does not have write permission granted.

`STOPPED NGCOPY` — The `COPY` was stopped because some other error occurred in moving the data.

SEE PROPRIETARY NOTICE ON COVER PAGE

c = Generic access package (GRASP) execution sequence number.

d = PID.

UID.

e = Bad PID.

f = Test phrase:

— EXTRA KEYWORD (PID).

— INCONSISTENT KEYWORDS (NL-OFF).

— INPUT ERROR (OFF COUNT).

— INVALID KEYWORD.

— RANGE ERROR (L or NL).

— RANGE ERROR (PID).

— RANGE ERROR (UVAR).

g = The system is in an overload condition.

4. ACTION TO BE TAKEN

If *b* is NOT STARTED NGPID, the process did not exist at the time the COPY was attempted. Consider using the process UID instead of the PID.

If *b* is NOT STARTED NGUID, the process did not exist at the time the COPY was attempted. If this happens repeatedly, a breakpoint could be defined and enabled for the process while no copies of the process exist. At the time a copy is created, the breakpoint would be planted in the enabled state.

If *b* is STOPPED NGADDR, recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the COPY command in the action list. This will help control the exact circumstances under which the operation is performed.

If *b* is STOPPED NGPROT, recheck the destination to verify that it indicates a writable area. To change program text, use the LOAD:UPNM input message.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Formats 1 through 4 have an OMDB key of 494.

Input Messages

```
COPY:PID
COPY:REG
COPY:UID
COPY:UVAR
DUMP:ADDR
LOAD:ADDR
OP:ST;PROC
WHEN:PID
WHEN:UID
```

Output Messages

```
COPY-PID
COPY-REG
COPY-UID
COPY-UVAR
```

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . COPY-BKDISK-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `COPY BKDISK` *a* [*b*]

[2]
```
COPY BKDISK NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS
```

2. REASON FOR OUTPUT

To report the progress of the `COPY:BKDISK` input message, or to indicate a problem.

3. VARIABLE FIELD DEFINITIONS

a = One of the following status messages:

`CANNOT LOCK PROCESS IN CORE`
Cannot lock physical disk-to-tape (PDT) writer process program in core. This may slow down the system processing.

`COMPLETED. DISMOUNT DATABASE TAPE AND LABEL`
Dismount the tape and label it as required by local procedures.

`COMPLETED. DISMOUNT GENERIC TAPE AND LABEL`
Dismount the tape and label it as required by local procedures.

`COMPLETED. DISMOUNT TAPE AND LABEL`
Dismount the tape and label it as required by local procedures.

`DISMOUNT DATABASE TAPE LABEL AND MOUNT NEXT TAPE`
End of tape has been reached. There are ten minutes in which to dismount the tape, label it, and mount a new tape. `COPY:BKDISK;ACK` input message must be entered to continue the process (see `COPY:BKDISK`, Format 2).

`DISMOUNT DATABASE TAPE LABEL AND MOUNT NEXT TAPE LAST CHANCE`
If the previous message was not executed within the prescribed time limit, a new limit of 20 minutes is set.

DISMOUNT GENERIC TAPE LABEL AND MOUNT NEXT TAPE
End of tape has been reached. There are 10 minutes in which to dismount the tape, label it, and mount a new tape. COPY:BKDISK;ACK input message must be entered to continue the process (see COPY:BKDISK, Format 2).

DISMOUNT GENERIC TAPE LABEL AND MOUNT NEXT TAPE LAST CHANCE
If the previous message was not executed within the prescribed time limit, a new limit of 20 minutes is set.

DISMOUNT TAPE LABEL AND MOUNT NEXT TAPE
End of tape has been reached. There are ten minutes in which to dismount the tape, label it, and mount a new tape. COPY:BKDISK;ACK input message must be entered to continue the process (see COPY:BKDISK, Format 2).

IN PROGRESS
Procedure is proceeding normally.

NOTE: COMMON TAPE - BOTH LBOOTS WILL BE WRITTEN.
This note informs the user that even though only one lboot partition was specified in the specfile, the lboot partition for the processors will be written to tape. Both partitions are written, since the volume table of contents (VTOC) on the disk is common.

STOPPED
Physical disk-to-tape writer has been stopped.

If *a* = STOPPED:

b = One of the following error messages:

CAN'T OPEN DISK. CHECK DATA FIELD AND TRY AGAIN
The disk name given could not be opened. There may be an error in the arguments to the DISK keyword.

CAN'T OPEN TAPE. CHECK DATA FIELD AND TRY AGAIN
The tape name given could not be opened. There may be an error in the arguments to the TAPE keyword, or possibly the tape drive is not on-line.

CAN'T OPEN TAPE. NEED TO RE-WRITE ENTIRE SEQUENCE
The tape name given could not be opened. There may be an error in the arguments to the TAPE keyword, or possibly the tape drive is not on-line.

SEE PROPRIETARY NOTICE ON COVER PAGE

CANNOT OPEN TAPE DATA
This message indicates that the open to the tape device failed. This may be due to the tape drive being off-line or the tape being write protected. A message will follow indicating to mount tape and acknowledge. There will be four chances given to mount a tape.

CANNOT RUN WITH SYSTEM OR FIELD UPDATE, OR ANOTHER COPY BKDISK
The COPY:BKDISK message cannot run simultaneously with a field update or system update message (any UPD input message), and cannot run while another COPY:BKDISK message is in progress.

COPY BKDISK START WAS NOT ISSUED
The COPY:BKDISK;ACK input command was issued before a COPY:BKDISK;START command.

ERROR CODE *xx*
The procedure has been terminated for one of the reasons listed below:

1 — A read of VTOC indicated zero bytes read.
2 — Error on read of VTOC.
3 — Second VTOC entry is not for 'VTOC' itself (the VTOC partitions may not be valid).
4 — Failed on setio system call for tape.
5 — Unable to open device directory /dev.
6 — The stat() UNIX® function failed to get device information for the diskname specified.
7 — The stat() UNIX® function failed to get device information for a partition name in the /dev directory.
8 — Two partition names specified in the specification file are duplicate (map into the same partition on disk). Remove one partition name and try again.
9 — Error in reading /dev device directory entries.
10 — Did not find stat() information for all partition names specified in specification file. One or more partition names specified may reside in a different disk. Remove these partition names and try again.
11 — Failed on open of partition.

SEE PROPRIETARY NOTICE ON COVER PAGE

12 — Failed on `setio` system call for disk.
13 — Error on read of partition.
14 — Unable to add data segment to address space.
15 — Cannot open specification file. This file may not exist, or may be zero length. Add required partition names and try again.
16 — The `COPY:BKDISK;ACK` input message cannot open /tmp/pdt to get the process ID of the `COPY:BKDISK;START` message.
17 — Too many partitions specified in the specification file.
18 — The `stat()` function failed to get device information for a partition name in the `/etc/pdtspec` file (this partition may not exist) or the `stat()` function could not find the name of the disk device or tape device entered on the message line. The name entered is not a special device name. Replace the name and try again.
19 — Name specified in the specification file is not a partition (file is not a block device). Replace with the proper partition name and try again.
20 — The `lla_dbatt()` function failed to attach to the system generation (SG) database (to get the SG time stamp that is included in the first header of a tape sequence).
21 — The `lla_rdget()` function failed to get the `sghdr_rec` record from the SG.
22 — Failed on `lla_dbrel` call.
23 — The `getdbseg()` function failed to attach to the equipment configuration database (ECD) (to get the generic version to be included in the first header of a tape sequence).
24 — The `lla_iatt()` function failed trying to attach to the incore database.
25 — A tape sequence was not effective for a generic or database (internal error in the `COPY:BKDISK;START` message). Try the entire procedure again.
26 — The system call `close()` failed when trying to close the partition that was opened to read the data.
27 — The system call `unlink()` failed when trying to unlink the partition already written to tape.
28 — The system call `mknod()` failed when trying to create a special device file or a partition.
29 — The system call `lseek()` failed when trying to find the disk offset to rewrite the tape.
30 — The `lla_rdget()` function failed to get the ecdorg, ucb, or mdct records from the ECD.
31 — The `lla_get()` function failed to get the logdev record from the ECD.

SEE PROPRIETARY NOTICE ON COVER PAGE

`INVALID SPECFILE`
Make sure that partition names were specified in the specification file.

`MOUNT TAPE AGAIN AND ACKNOWLEDGE LAST CHANCE`
This message will be output as the last warning for mounting a tape successfully. The `COPY:BKDISK` message will abort after 20 minutes.

`MOUNT TAPE AND ACKNOWLEDGE`
This message is printed after a previous request to mount a tape failed (for example, the `open()` of the tape failed), or if the `COPY:BKDISK;ACK` input message is not entered to continue the process. There are seven chances to mount a tape successfully, before the `COPY:BKDISK;START` input message aborts.

`MRG OPTION INCORRECTLY USED`
Specification file does not have database and generic partitions. This option should be used when there is a need to create one sequence for generic and database partitions.

`RE-INITIALIZE ENTIRE SEQUENCE`
This message indicates that the entire tape writing procedure must be re-initiated using the `COPY:BKDISK;START` input message.

`TAPE CHANGE ACTION INCORRECT`
The action taken to change the tape was incorrect. This can occur if the time limits were exceeded, an invalid tape size was entered, or no tape size was entered. This message is followed immediately by `RE-INITIATE ENTIRE SEQUENCE.`

`TAPE SIZE OUT OF RANGE RE-ENTER COMMAND`
An incorrect tape size was entered for the tape device specified. The acceptable range for a 9-track tape is 600 to 2400 feet.

`TAPE WRITE ERROR. NEED TO RE-WRITE ENTIRE SEQUENCE`
A physical error was encountered while writing to the tape. This error may also appear if an incorrect device name was specified for 'EXT' (extended) format. Mount tape on proper device if necessary and enter `COPY:BKDISK;START` input message.

`TAPE WRITE ERROR MOUNT NEW TAPE AND TRY AGAIN`
A physical write error was encountered while writing to the tape. It may be necessary to mount a new tape, since write errors occur due to `bad spots` on tape. `COPY:BKDISK;ACK` input message must be entered to rewrite the tape.

4. ACTION TO BE TAKEN

Execution errors (error codes 8, 10, 15, 17, 18, and 19) can be corrected by examining the procedures used for execution of the message. If any other errors occur, seek technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Format 1 has an OMDB key of 185.

Input Messages

ID . . . . . COPY-BKDISK-B
GENERIC . . . . . UNIX RTR R21.3 and R21.11
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `COPY BKDISK` *a* [*b*]

[2]
```
COPY BKDISK NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS
```

2. REASON FOR OUTPUT

To report the progress of the `COPY:BKDISK` input message, or to indicate a problem.

3. VARIABLE FIELD DEFINITIONS

a = One of the following status messages:

`CANNOT LOCK PROCESS IN CORE`
Cannot lock physical disk-to-tape (PDT) writer process program in core. This may slow down the system processing.

`COM OPTION MISUSED. ISSUE COMMAND AGAIN.`
The COM option was used on RTR boot disks that do not have a common VTOC. A common RTR VTOC includes both the 3B20D VLMM and the 3B21D lboot partitions. Issue the command again without the COM option.

`COM OPTION NEEDED. ISSUE COMMAND AGAIN.`
The COM option is needed, since the RTR boot disk image being created has a VTOC including both the 3B20D VLMM and the 3B21D lboot partitions. Issue the command again with the COM option.

`COMPLETED. DISMOUNT DATABASE TAPE AND LABEL`
Dismount the tape and label it as required by local procedures.

`COMPLETED. DISMOUNT GENERIC TAPE AND LABEL`
Dismount the tape and label it as required by local procedures.

`COMPLETED. DISMOUNT TAPE AND LABEL`
Dismount the tape and label it as required by local procedures.

`DISMOUNT DATABASE TAPE LABEL AND MOUNT NEXT TAPE`
End of tape has been reached. There are ten minutes in which to dismount the tape, label it, and mount a new tape.

COPY:BKDISK;ACK input message must be entered to continue the process (see COPY:BKDISK, Format 2).

DISMOUNT DATABASE TAPE LABEL AND MOUNT NEXT TAPE LAST CHANCE
If the previous message was not executed within the prescribed time limit, a new limit of 20 minutes is set.

DISMOUNT GENERIC TAPE LABEL AND MOUNT NEXT TAPE
End of tape has been reached. There are 10 minutes in which to dismount the tape, label it, and mount a new tape. COPY:BKDISK;ACK input message must be entered to continue the process (see COPY:BKDISK, Format 2).

DISMOUNT GENERIC TAPE LABEL AND MOUNT NEXT TAPE LAST CHANCE
If the previous message was not executed within the prescribed time limit, a new limit of 20 minutes is set.

DISMOUNT TAPE LABEL AND MOUNT NEXT TAPE
End of tape has been reached. There are ten minutes in which to dismount the tape, label it, and mount a new tape. COPY:BKDISK;ACK input message must be entered to continue the process (see COPY:BKDISK, Format 2).

IN PROGRESS
Procedure is proceeding normally.

NOTE: COMMON TAPE - BOTH LBOOTS WILL BE WRITTEN.
This note informs the user that even though only one lboot partition was specified in the specfile, the lboot partition for the processors will be written to tape. Both partitions are written, since the volume table of contents (VTOC) on the disk is common.

STOPPED
Physical disk-to-tape writer has been stopped.

If *a* = STOPPED:

b = One of the following error messages:

CAN'T OPEN DISK. CHECK DATA FIELD AND TRY AGAIN
The disk name given could not be opened. There may be an error in the arguments to the DISK keyword.

CAN'T OPEN TAPE. CHECK DATA FIELD AND TRY AGAIN
The tape name given could not be opened. There may be an error in the arguments to the TAPE keyword, or possibly the tape drive is not on-line.

CAN'T OPEN TAPE. NEED TO RE-WRITE ENTIRE SEQUENCE
The tape name given could not be opened. There may be an error in the arguments to the TAPE keyword, or possibly the tape drive is not on-line.

CANNOT OPEN TAPE DATA
This message indicates that the open to the tape device failed. This may be due to the tape drive being off-line or the tape being write protected. A message will follow indicating to mount tape and acknowledge. There will be four chances given to mount a tape.

CANNOT RUN WITH SYSTEM OR FIELD UPDATE, OR ANOTHER COPY BKDISK
The COPY:BKDISK message cannot run simultaneously with a field update or system update message (any UPD input message), and cannot run while another COPY:BKDISK message is in progress.

COPY BKDISK START WAS NOT ISSUED
The COPY:BKDISK;ACK input command was issued before a COPY:BKDISK;START command.

ERROR CODE *xx*
The procedure has been terminated for one of the reasons listed below:

1 — A read of VTOC indicated zero bytes read.
2 — Error on read of VTOC.
3 — Second VTOC entry is not for 'VTOC' itself (the VTOC partitions may not be valid).
4 — Failed on setio system call for tape.
5 — Unable to open device directory /dev.
6 — The stat() UNIX® function failed to get device information for the diskname specified.
7 — The stat() UNIX® function failed to get device information for a partition name in the /dev directory.
8 — Two partition names specified in the specification file are duplicate (map into the same partition on disk). Remove one partition name and try again.
9 — Error in reading /dev device directory entries.
10 — Did not find stat() information for all partition names specified in specification file. One or more partition names specified may reside in a different disk. Remove these partition names and try again.
11 — Failed on open of partition.

SEE PROPRIETARY NOTICE ON COVER PAGE

12 — Failed on `setio` system call for disk.
13 — Error on read of partition.
14 — Unable to add data segment to address space.
15 — Cannot open specification file. This file may not exist, or may be zero length. Add required partition names and try again.
16 — The `COPY:BKDISK;ACK` input message cannot open /tmp/pdt to get the process ID of the `COPY:BKDISK;START` message.
17 — Too many partitions specified in the specification file.
18 — The `stat()` function failed to get device information for a partition name in the `/etc/pdtspec` file (this partition may not exist) or the `stat()` function could not find the name of the disk device or tape device entered on the message line. The name entered is not a special device name. Replace the name and try again.
19 — Name specified in the specification file is not a partition (file is not a block device). Replace with the proper partition name and try again.
20 — The `lla_dbatt()` function failed to attach to the system generation (SG) database (to get the SG time stamp that is included in the first header of a tape sequence).
21 — The `lla_rdget()` function failed to get the `sghdr_rec` record from the SG.
22 — Failed on `lla_dbrel` call.
23 — The `getdbseg()` function failed to attach to the equipment configuration database (ECD) (to get the generic version to be included in the first header of a tape sequence).
24 — The `lla_iatt()` function failed trying to attach to the incore database.
25 — A tape sequence was not effective for a generic or database (internal error in the `COPY:BKDISK;START` message). Try the entire procedure again.
26 — The system call `close()` failed when trying to close the partition that was opened to read the data.
27 — The system call `unlink()` failed when trying to unlink the partition already written to tape.
28 — The system call `mknod()` failed when trying to create a special device file or a partition.
29 — The system call `lseek()` failed when trying to find the disk offset to rewrite the tape.
30 — The `lla_rdget()` function failed to get the ecdorg, ucb, or mdct records from the ECD.
31 — The `lla_get()` function failed to get the logdev record from the ECD.

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32 — The tape device being used is not compatible with the EXT option. The EXT option is always compatible with a processor or an Administrative Work Station (AWS) tape device, since data to be written is broken up into 6K-size records by default. On the 3B21D, data is not broken up into 6K-size records by default. This error occurs if you are on the 3B21D and the logdev record for the tape device specified has one of the following characteristics:

1. is of type IOP
2. has a fixed blocking factor
3. has a blocking factor not equal to 6K

The blocking factor for some tape devices can be determined by their naming convention. Refer to the ''Magnetic Tape Special Device File Names'' chapter of the *Lucent Technologies 3B20D and 3B21D Computers UNIX RTR Operating System, System Maintenance Manual* for tape device naming conventions. Seek technical assistance if necessary.

`INVALID SPECFILE`
Make sure that partition names were specified in the specification file.

`MOUNT TAPE AGAIN AND ACKNOWLEDGE LAST CHANCE`
This message will be output as the last warning for mounting a tape successfully. The `COPY:BKDISK` message will abort after 20 minutes.

`MOUNT TAPE AND ACKNOWLEDGE`
This message is printed after a previous request to mount a tape failed (for example, the `open()` of the tape failed), or if the `COPY:BKDISK;ACK` input message is not entered to continue the process. There are seven chances to mount a tape successfully, before the `COPY:BKDISK;START` input message aborts.

`MRG OPTION INCORRECTLY USED`
Specification file does not have database and generic partitions. This option should be used when there is a need to create one sequence for generic and database partitions.

`RE-INITIALIZE ENTIRE SEQUENCE`
This message indicates that the entire tape writing procedure must be re-initiated using the `COPY:BKDISK;START` input message.

TAPE CHANGE ACTION INCORRECT
The action taken to change the tape was incorrect. This can occur if the time limits were exceeded, an invalid tape size was entered, or no tape size was entered. This message is followed immediately by RE-INITIATE ENTIRE SEQUENCE.

TAPE SIZE OUT OF RANGE RE-ENTER COMMAND
An incorrect tape size was entered for the tape device specified. The acceptable range for a 9-track tape is 600 to 2400 feet and the acceptable range for a DAT is 30 to 90 meters.

TAPE WRITE ERROR. NEED TO RE-WRITE ENTIRE SEQUENCE
A physical error was encountered while writing to the tape. This error may also appear if an incorrect device name was specified for 'EXT' (extended) format. Mount tape on proper device if necessary and enter COPY:BKDISK;START input message.

TAPE WRITE ERROR MOUNT NEW TAPE AND TRY AGAIN
A physical write error was encountered while writing to the tape. It may be necessary to mount a new tape, since write errors occur due to bad spots on tape. COPY:BKDISK;ACK input message must be entered to rewrite the tape.

4. ACTION TO BE TAKEN

Execution errors (error codes 8, 10, 15, 17, 18, and 19) can be corrected by examining the procedures used for execution of the message. If any other errors occur, seek technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Format 1 has an OMDB key of 185.

Input Messages

ID . . . . . COPY-BKDISK-C
GENERIC . . . . . UNIX RTR R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `COPY BKDISK` *a* [*b*]

[2]
```
COPY BKDISK NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS
```

[3]
```
COPY BKDISK { ABORTED | STOPPED }
[ CANNOT OVERWRITE PREVIOUS SESSION |
END OF TAPE ENCOUNTERED |
HARDWARE PLATFORM NOT VALID FOR MULTI VOLUME TAPE |
INVALID POSITIONING SESSION |
INVALID POSITIONING VOLUME |
INVALID TAPE DEVICE TYPE |
LOGICAL VOLUME NOT IN ASCENDING ORDER |
MRG OPTION REQUIRED |
REQUESTED SESSION TO UPDATE IS NOT MOST RECENT SESSION ON TAPE |
SESSION IS NOT IN SEQUENTIAL ORDER |
TAPE DEVICE NOT VALID FOR MULTI VOLUME TAPE |
TAPE LIBRARY ERROR c |
TAPE WRITE ERROR d ]
```

[4]
```
COPY BKDISK STOPPED
CANNOT EXECUTE CHILD PROCESS
```

2. REASON FOR OUTPUT

To report the progress of the `COPY:BKDISK` input message, or to indicate a problem.

3. VARIABLE FIELD DEFINITIONS

a = One of the following status messages:

`CANNOT LOCK PROCESS IN CORE`
Cannot lock physical disk-to-tape (PDT) writer process program in core. This may slow down the system processing.

`COM OPTION MISUSED. ISSUE COMMAND AGAIN.`
The COM option was used on RTR boot disks that do not have a common VTOC. A common RTR VTOC includes both the 3B20D VLMM and the 3B21D lboot partitions. Issue the command again without the COM option.

COM OPTION NEEDED. ISSUE COMMAND AGAIN.
The COM option is needed, since the RTR boot disk image being created has a VTOC including both the 3B20D VLMM and the 3B21D lboot partitions. Issue the command again with the COM option.

COMPLETED. DISMOUNT DATABASE TAPE AND LABEL
Dismount the tape and label it as required by local procedures.

COMPLETED. DISMOUNT GENERIC TAPE AND LABEL
Dismount the tape and label it as required by local procedures.

COMPLETED. DISMOUNT TAPE AND LABEL
Dismount the tape and label it as required by local procedures.

DISMOUNT DATABASE TAPE LABEL AND MOUNT NEXT TAPE
End of tape has been reached. There are ten minutes in which to dismount the tape, label it, and mount a new tape. COPY:BKDISK;ACK input message must be entered to continue the process (see COPY:BKDISK, Format 2).

DISMOUNT DATABASE TAPE LABEL AND MOUNT NEXT TAPE LAST CHANCE
If the previous message was not executed within the prescribed time limit, a new limit of 20 minutes is set.

DISMOUNT GENERIC TAPE LABEL AND MOUNT NEXT TAPE
End of tape has been reached. There are 10 minutes in which to dismount the tape, label it, and mount a new tape. COPY:BKDISK;ACK input message must be entered to continue the process (see COPY:BKDISK, Format 2).

DISMOUNT GENERIC TAPE LABEL AND MOUNT NEXT TAPE LAST CHANCE
If the previous message was not executed within the prescribed time limit, a new limit of 20 minutes is set.

DISMOUNT TAPE LABEL AND MOUNT NEXT TAPE
End of tape has been reached. There are ten minutes in which to dismount the tape, label it, and mount a new tape. COPY:BKDISK;ACK input message must be entered to continue the process (see COPY:BKDISK, Format 2).

IN PROGRESS
Procedure is proceeding normally.

NOTE: COMMON TAPE - BOTH LBOOTS WILL BE WRITTEN.
This note informs the user that even though only one lboot partition was specified in the specfile, the lboot partition for the processors will be written to tape. Both partitions are written, since the volume table of contents (VTOC) on the disk is common.

STOPPED
Physical disk-to-tape writer has been stopped.

If *a* = STOPPED:

b = One of the following error messages:

CAN'T OPEN DISK. CHECK DATA FIELD AND TRY AGAIN
The disk name given could not be opened. There may be an error in the arguments to the DISK keyword.

CAN'T OPEN TAPE. CHECK DATA FIELD AND TRY AGAIN
The tape name given could not be opened. There may be an error in the arguments to the TAPE keyword, or possibly the tape drive is not on-line.

CAN'T OPEN TAPE. NEED TO RE-WRITE ENTIRE SEQUENCE
The tape name given could not be opened. There may be an error in the arguments to the TAPE keyword, or possibly the tape drive is not on-line.

CANNOT OPEN TAPE DATA
This message indicates that the open to the tape device failed. This may be due to the tape drive being off-line or the tape being write protected. A message will follow indicating to mount tape and acknowledge. There will be four chances given to mount a tape.

CANNOT RUN WITH SYSTEM OR FIELD UPDATE, OR ANOTHER COPY BKDISK
The COPY:BKDISK message cannot run simultaneously with a field update or system update message (any UPD input message), and cannot run while another COPY:BKDISK message is in progress.

COPY BKDISK START WAS NOT ISSUED
The COPY:BKDISK;ACK input command was issued before a COPY:BKDISK;START command.

ERROR CODE *xx*
The procedure has been terminated for one of the reasons listed below:

1 — A read of VTOC indicated zero bytes read.
2 — Error on read of VTOC.
3 — Second VTOC entry is not for 'VTOC' itself (the VTOC partitions may not be valid).
4 — Failed on `setio` system call for tape.
5 — Unable to open device directory `/dev`.
6 — The `stat()` UNIX® function failed to get device information for the diskname specified.
7 — The `stat()` UNIX® function failed to get device information for a partition name in the `/dev` directory.
8 — Two partition names specified in the specification file are duplicate (map into the same partition on disk). Remove one partition name and try again.
9 — Error in reading /dev device directory entries.
10 — Did not find `stat()` information for all partition names specified in specification file. One or more partition names specified may reside in a different disk. Remove these partition names and try again.
11 — Failed on open of partition.
12 — Failed on `setio` system call for disk.
13 — Error on read of partition.
14 — Unable to add data segment to address space.
15 — Cannot open specification file. This file may not exist, or may be zero length. Add required partition names and try again.
16 — The `COPY:BKDISK;ACK` input message cannot open /tmp/pdt to get the process ID of the `COPY:BKDISK;START` message.
17 — Too many partitions specified in the specification file.
18 — The `stat()` function failed to get device information for a partition name in the `/etc/pdtspec` file (this partition may not exist), or the `stat()` function could not find the name of the disk device or tape device entered on the message line. The name entered is not a special device name. Replace the name and try again.
19 — Name specified in the specification file is not a partition (file is not a block device). Replace with the proper partition name and try again.
20 — The `lla_dbatt()` function failed to attach to the system generation (SG) database (to get the SG time stamp that is included in the first header of a tape sequence).
21 — The `lla_rdget()` function failed to get the `sghdr_rec` record from the SG.
22 — Failed on `lla_dbrel` call.

SEE PROPRIETARY NOTICE ON COVER PAGE

23 — The `getdbseg()` function failed to attach to the equipment configuration database (ECD) (to get the generic version to be included in the first header of a tape sequence).

24 — The `lla_iatt()` function failed trying to attach to the incore database.

25 — A tape sequence was not effective for a generic or database (internal error in the `COPY:BKDISK;START` message). Try the entire procedure again.

26 — The system call `close()` failed when trying to close the partition that was opened to read the data.

27 — The system call `unlink()` failed when trying to unlink the partition already written to tape.

28 — The system call `mknod()` failed when trying to create a special device file or a partition.

29 — The system call `lseek()` failed when trying to find the disk offset to rewrite the tape.

30 — The `lla_rdget()` function failed to get the ecdorg, ucb, or mdct records from the ECD.

31 — The `lla_get()` function failed to get the logdev record from the ECD.

32 — The tape device being used is not compatible with the EXT option. The EXT option is always compatible with a processor or an Administrative Work Station (AWS) tape device, since data to be written is broken up into 6K-size records by default. On the 3B21D, data is not broken up into 6K-size records by default. This error occurs if you are on the 3B21D and the logdev record for the tape device specified has one of the following characteristics:

1. is of type IOP
2. has a fixed blocking factor
3. has a blocking factor not equal to 6K

The blocking factor for some tape devices can be determined by their naming convention. Refer to the ''Magnetic Tape Special Device File Names'' chapter of the *Lucent Technologies 3B20D and 3B21D Computers UNIX RTR Operating System, System Maintenance Manual* for tape device naming conventions. Seek technical assistance if necessary.

33 — The ECD mdct record for the source disk references more than two units.

34 — The ECD mdct record for the source disk does not reference any units.

35 — No BBOOT partition entries were found in the RTR boot disk VTOC.

36 — A BACKUP BBOOT partition entry was not found in the RTR boot disk VTOC.
37 — A PRIMARY BBOOT partition entry was not found in the RTR boot disk VTOC.

`INVALID SPECFILE`
Make sure that partition names were specified in the specification file.

`MOUNT TAPE AGAIN AND ACKNOWLEDGE LAST CHANCE`
This message will be output as the last warning for mounting a tape successfully. The `COPY:BKDISK` message will abort after 20 minutes.

`MOUNT TAPE AND ACKNOWLEDGE`
This message is printed after a previous request to mount a tape failed (for example, the `open()` of the tape failed), or if the `COPY:BKDISK;ACK` input message is not entered to continue the process. There are seven chances to mount a tape successfully, before the `COPY:BKDISK;START` input message aborts.

`MRG OPTION INCORRECTLY USED`
Specification file does not have database and generic partitions. This option should be used when there is a need to create one sequence for generic and database partitions.

`RE-INITIALIZE ENTIRE SEQUENCE`
This message indicates that the entire tape writing procedure must be re-initiated using the `COPY:BKDISK;START` input message.

`TAPE CHANGE ACTION INCORRECT`
The action taken to change the tape was incorrect. This can occur if the time limits were exceeded, an invalid tape size was entered, or no tape size was entered. This message is followed immediately by `RE-INITIATE ENTIRE SEQUENCE.`

`TAPE SIZE OUT OF RANGE RE-ENTER COMMAND`
An incorrect tape size was entered for the tape device specified. The acceptable range for a 9-track tape is 600 to 2400 feet and the acceptable range for a DAT is 30 to 90 meters.

`TAPE WRITE ERROR. NEED TO RE-WRITE ENTIRE SEQUENCE`
A physical error was encountered while writing to the tape. This error may also appear if an incorrect device name was specified for 'EXT' (extended) format. Mount tape on proper device if necessary and enter `COPY:BKDISK;START` input message.

SEE PROPRIETARY NOTICE ON COVER PAGE

`TAPE WRITE ERROR MOUNT NEW TAPE AND TRY AGAIN`
A physical write error was encountered while writing to the tape. It may be necessary to mount a new tape, since write errors occur due to `bad spots` on tape. `COPY:BKDISK;ACK` input message must be entered to rewrite the tape.

c = Tape library error code number (see the Tape Library Error Appendix, TAPE-LIB).

d = System error code number (see the System Error Codes Output Appendix, SYSERR).

4. ACTION TO BE TAKEN

Format 1 execution errors (error codes `8`, `10`, `15`, `17`, `18`, and `19`) can be corrected by examining the procedures used for execution of the message. Seek technical assistance for all other error codes.

Format 3 errors pertain to multi-volume digital audio tapes and will be accompanied by explanatory text. If the message indicates that there is a problem with the tape, verify that the correct tape is loaded in the specified tape drive. If the message indicates that there is a problem accessing the tape drive, verify that the tape is loaded and that the tape drive is active. If these checks fail to uncover the problem, or if the description of the error is not self-explanatory, seek technical assistance.

Format 4 indicates that there is a problem invoking the `/prc/3btpwrt` process. Verify that the process exists and is executable. If these checks fail to uncover the problem, seek technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key(s)
Formats 1 and 2 have an OMDB key of 185.
Formats 3 and 4 have an OMDB key of 748

Input Message(s)

ID . . . . . COPY-BKTAPE
GENERIC . . . . . UNIX RTR R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
COPY BKTAPE a
[CANNOT ALLOCATE SEGMENT, ERROR b |
CANNOT OPEN INPUT DEVICE, ERROR b |
CANNOT OPEN OUTPUT DEVICE, ERROR b |
ECD ERROR c |
HARDWARE PLATFORM NOT VALID FOR MULTI VOLUME TAPE |
INCOMPLETE READ FROM INPUT DEVICE |
INPUT AND OUTPUT DEVICES ARE IDENTICAL |
INVALID MULTI VOLUME TAPE HEADER |
NO DATA ON TAPE |
OUTPUT DEVICE HAS FIXED RECORD SIZE |
READ FAILED FROM INPUT DEVICE, ERROR b |
SETIO FAILED ON INPUT DEVICE, ERROR b |
SETIO FAILED ON OUTPUT DEVICE, ERROR b |
STAT FAILED ON INPUT DEVICE, ERROR b |
TAPE CONTAINS NONSEQUENTIAL SESSIONS |
TAPE CONTAINS VOLUMES NOT IN ASCENDING ORDER |
TAPE DEVICE IS NOT ACTIVE |
TAPE DEVICE DOES NOT SUPPORT LDFT RECORD SIZE |
TAPE DEVICE NOT VALID FOR MULTI VOLUME TAPE |
TAPE HEADER CONTAINS INVALID SESSION |
TAPE HEADER CONTAINS INVALID VOLUME |
TAPE LIBRARY ERROR d |
TOO MANY TOP FILES ON INPUT TAPE |
UNEXPECTED END OF DATA DETECTED |
WRITE FAILED TO OUTPUT DEVICE, ERROR b ]
```

2. REASON FOR OUTPUT

To report the status of a request to copy the contents of a multi-volume digital audio tape (DAT) to a destination DAT.

3. VARIABLE FIELD DEFINITIONS

a = Request status.

ABORTED	— The copy failed and was aborted.
COMPLETED	— The copy completed with no errors.
IN PROGRESS	— The copy is in progress.
STARTED	— The copy started.
STOPPED	— The copy failed and was stopped.

b = System error code number (see the System Error Codes Output Appendix, SYSERR).

c = Internal error code for failure of an equipment configuration database (ECD) access function.

1 — `getdbseg` failed, could not attach to the ECD
2 — `lla_iatt` failed, could not attach to the incore database
3 — `lla_rdget` failed, could not get the ecdorg record from the ECD
4 — `lla_get` failed, could not get the logdev record for the source tape device from the ECD
5 — `lla_rdget` failed, could not get the mdct record for the source tape device from the ECD
6 — `lla_rdget` failed, could not get the ucb record for the source tape device from the ECD
7 — `lla_get` failed, could not get the logdev record for the destination tape device from the ECD
8 — `lla_rdget` failed, could not get the mdct record for the destination tape device from the ECD
9 — `lla_rdget` failed, could not the the ucb record for the destination tape device from the ECD
10 — `rmovdbseg` failed, could not remove incore database segments

d = Tape library error code number (see the Tape Library Error Appendix, TAPE-LIB).

4. ACTION TO BE TAKEN

Errors will be accompanied by explanatory text. Verify that the command that was input is consistent with the `COPY-BKTAPE` input message manual page. If the message indicates that there is a problem with a tape, verify that the correct tape is loaded in the specified tape drive. If the message indicates that there is a problem accessing a tape drive, verify that a tape is loaded and that the tape drive is active. If these checks fail to uncover the problem, or if the description of the error is not self-explanatory, seek technical assistance.

5. ALARMS

None. This alarm is either a manually-requested report or an automatically-generated report for information only.

6. REFERENCES

OMDB Key(s):
This message has an OMDB key of 760 or 761.

Input Messages
COPY:BKTAPE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . COPY-DIFF,SRC-A
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has 13 formats.

[1] `COPY DIFF SRC MHD` *a* `STARTED`

[2] `COPY DIFF SRC MHD` *a* `NOT STARTED` *b c*

[3] `COPY DIFF SRC MHD` *a* `STOPPED` *b c*

[4] `COPY DIFF SRC MHD` *a* `ABORTED` *b*

[5] `COPY DIFF SRC MHD` *a* `ERROR` *b c*

[6] `COPY DIFF SRC MHD` *a* `COMPLETED`

[7]
```
COPY DIFF SRC MHD IN PROGRESS
  MHD a SINGLE BLOCK READ RETRY {WORKED|FAILED}
  START DISK BLOCK = d {FAILING|END} DISK BLOCK = e
```

[8]
```
COPY DIFF SRC MHD a PARTITION MISMATCH
  MHD a PARTITION f OFFSET g BLOCKS d - e
  MHD aa PARTITION f OFFSET g BLOCKS d - e
```

[9]
```
COPY DIFF SRC MHD a PARTITION SUMMARY
  MHD a PARTITION f
  MHD aa PARTITION f
  MISMATCHES h CORRECTIONS i IO JOBS j IO ERRORS k
  STIME hh:mm:ss ETIME hh:mm:ss
```

[10]
```
COPY DIFF SRC MHD a PARTITION EARLY TERMINATED
  MHD a PARTITION f
  MHD aa PARTITION f
  MISMATCHES h CORRECTIONS i IO JOBS j IO ERRORS k
  STIME hh:mm:ss ETIME hh:mm:ss
```

[11]
```
COPY DIFF SRC MHD {a|aa} PARTITION ACCESS FAILURE
  MHD {a READ|aa WRITE} FAILED
  PARTITION f OFFSET g BLOCK l
```

[12] `COPY DIFF SRC MHD` *a* `FINAL SUMMARY`
`MHD` *a*
`MHD` *aa*
`MISMATCHES` *h* `CORRECTIONS` *i* `IO JOBS` *j* `IO ERRORS` *k*
`STIME` *hh:mm:ss* `ETIME` *hh:mm:ss*

[13] `COPY DIFF SRC MHD` *a* `PARTITION BYPASSED`
`MHD` *a* `PARTITION` *f* `SIZE` *m*
`MHD` *aa* `PARTITION` *f* `SIZE` *m*
`PARTITION SIZES NOT EQUAL`
`STIME` *hh:mm:ss* `ETIME` *hh:mm:ss*

2. REASON FOR OUTPUT

To report the result of executing a `COPY:DIFF` input message. `STIME` is the time the message was started. `ETIME` is used to indicate the elapsed time for a particular partition. The `ETIME` for the `FINAL` message is the total elapsed time.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the source disk of the moving head disk (MHD) drive.

b = Process step or reason code:

`f03` — Cannot open equipment configuration database (ECD).
`f06` — Cannot get unit control block (UCB) of first unit by name.
`f09` — Cannot get UCB of second unit by name.
`f12` — Cannot get UCB of first unit's mate.
`f15` — Cannot get UCB of first unit's mate.
`f18` — Cannot reserve UCB of second unit.
`f21` — Cannot assign special device file name of second unit.
`f24` — Cannot open special device file of second unit.
`f27` — Cannot enable message reception.
`f30` — See accompanying DKDRV error report on the receive-only printer.
`f36` — Failed to close special device file of second unit.
`f39` — Failed to release special device file of second unit.
`f42` — Message to port failure.
`f45` — Message reception failure.
`f48` — Message to port failure.
`f51` — Message reception failure.
`f54` — Process timed out.
`f57` — Failed to close special device file of second unit.
`f60` — Failed to release special device file of second unit.
`f63` — Failed to unreserve UCB of second unit.
`f66` — Failed to close ECD.

c = System error code number. See System Error Codes Output Appendix, `SYSERR-APP`.

SEE PROPRIETARY NOTICE ON COVER PAGE

d = First disk block number (of a range) that mismatched while being compared.

e = Last disk block number (of a range) that mismatched while being compared.

f = Partition number in use when a mismatch was encountered.

g = Offset within partition when mismatch was detected.

h = Number of mismatches that were detected.

i = Number of corrections that were made.

j = Number of Input/Output jobs done.

k = Number of errors detected doing I/O.

l = Disk block number that failed to read or write.

m = Size of the partition given in disk blocks.

hh = Hours.

mm = Minutes.

ss = Seconds.

`ETIME` = Elapsed time for a partition to compare. For the `FINAL SUMMARY` report, the `ETIME` is the total elapsed time of all the partitions.

`STIME` = The time the compare of the partition was started. For the `FINAL SUMMARY` report, `STIME` indicates the start time of the input message.

4. ACTION TO BE TAKEN

Noncompletion termination reports that provide an error code usually indicate a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried.

Appropriate mismatch messages will be generated indicating the range of disk blocks where the mismatch occurred. A maximum of eight mismatch error messages will be output per partition. More than eight mismatch messages will result in an early termination.

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. ALARMS

None. This automatically-generated report is for information only.

Manual alarm. This alarm is a manually-requested report.

Major alarm. May not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Formats 1,2,3,4,5, and 6 have OMDB keys of 119,120, and 121.
Format 7 has an OMDB key of 122.
Format 8 has OMDB keys of 124 and 125.
Formats 9 and 10 have OMDB keys of 126 and 127.
Format 11 has OMDB keys of 132 and 133.
Format 12 has OMDB keys of 130 and 131.
Format 13 has OMDB keys of 128 and 129.

Output Appendix
SYSERR-APP

Input Messages
DUMP:MHD;DEF
STOP:CMPR;MHD

Output Message
CMPR-MHD

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ID . . . . . COPY-DIFF,SRC-B
GENERIC . . . . . UNIX RTR R21.11 and R21.15
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has 13 formats.

[1] `COPY DIFF SRC MHD` *a* `STARTED`

[2] `COPY DIFF SRC MHD` *a* `NOT STARTED` *b c*

[3] `COPY DIFF SRC MHD` *a* `STOPPED` *b c*

[4] `COPY DIFF SRC MHD` *a* `ABORTED` *b*

[5] `COPY DIFF SRC MHD` *a* `ERROR` *b c*

[6] `COPY DIFF SRC MHD` *a* `COMPLETED`

[7]
```
COPY DIFF SRC MHD IN PROGRESS
  MHD a SINGLE BLOCK READ RETRY {WORKED|FAILED}
  START DISK BLOCK = d {FAILING|END} DISK BLOCK = e
```

[8]
```
COPY DIFF SRC MHD a PARTITION MISMATCH
  MHD a PARTITION f OFFSET g BLOCKS d - e
  MHD aa PARTITION f OFFSET g BLOCKS d - e
```

[9]
```
COPY DIFF SRC MHD a PARTITION SUMMARY
  MHD a PARTITION f
  MHD aa PARTITION f
  MISMATCHES h CORRECTIONS i IO JOBS j IO ERRORS k
  STIME hh:mm:ss ETIME hh:mm:ss
```

[10]
```
COPY DIFF SRC MHD a PARTITION EARLY TERMINATED
  MHD a PARTITION f
  MHD aa PARTITION f
  MISMATCHES h CORRECTIONS i IO JOBS j IO ERRORS k
  STIME hh:mm:ss ETIME hh:mm:ss
```

[11]
```
COPY DIFF SRC MHD {a|aa} PARTITION ACCESS FAILURE
  MHD {a READ|aa WRITE} FAILED
  PARTITION f OFFSET g BLOCK l
```

[12] `COPY DIFF SRC MHD` *a* `FINAL SUMMARY`
`MHD` *a*
`MHD` *aa*
`MISMATCHES` *h* `CORRECTIONS` *i* `IO JOBS` *j* `IO ERRORS` *k*
`STIME` *hh:mm:ss* `ETIME` *hh:mm:ss*

[13] `COPY DIFF SRC MHD` *a* `PARTITION BYPASSED`
`MHD` *a* `PARTITION` *f* `SIZE` *m*
`MHD` *aa* `PARTITION` *f* `SIZE` *m*
`PARTITION SIZES NOT EQUAL`
`STIME` *hh:mm:ss* `ETIME` *hh:mm:ss*

2. REASON FOR OUTPUT

To report the result of executing a `COPY:DIFF` input message. `STIME` is the time the message was started. `ETIME` is used to indicate the elapsed time for a particular partition. The `ETIME` for the `FINAL` message is the total elapsed time.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the source disk of the moving head disk (MHD) drive.

b = Process step or reason code:

`f03` — Cannot open equipment configuration database (ECD).
`f06` — Cannot get unit control block (UCB) of first unit by name.
`f09` — Cannot get UCB of second unit by name.
`f12` — Cannot get UCB of first unit's mate.
`f15` — Cannot get UCB of first unit's mate.
`f18` — Cannot reserve UCB of second unit.
`f21` — Cannot assign special device file name of second unit.
`f24` — Cannot open special device file of second unit.
`f27` — Cannot enable message reception.
`f30` — See accompanying DKDRV error report on the receive-only printer.
`f36` — Failed to close special device file of second unit.
`f39` — Failed to release special device file of second unit.
`f42` — Message to port failure.
`f45` — Message reception failure.
`f48` — Message to port failure.
`f51` — Message reception failure.
`f54` — Process timed out.
`f57` — Failed to close special device file of second unit.
`f60` — Failed to release special device file of second unit.
`f63` — Failed to unreserve UCB of second unit.
`f66` — Failed to close ECD.

c = System error code number. See System Error Codes Output Appendix, `SYSERR-APP`.

SEE PROPRIETARY NOTICE ON COVER PAGE

d = First disk block number (of a range) that mismatched while being compared.

e = Last disk block number (of a range) that mismatched while being compared.

f = Partition number in use when a mismatch was encountered.

g = Offset within partition when mismatch was detected.

h = Number of mismatches that were detected.

i = Number of corrections that were made.

j = Number of Input/Output jobs done.

k = Number of errors detected doing I/O.

l = Disk block number that failed to read or write.

m = Size of the partition given in disk blocks.

hh = Hours.

mm = Minutes.

ss = Seconds.

`ETIME` = Elapsed time for a partition to compare. For the `FINAL SUMMARY` report, the `ETIME` is the total elapsed time of all the partitions.

`STIME` = The time the compare of the partition was started. For the `FINAL SUMMARY` report, `STIME` indicates the start time of the input message.

4. ACTION TO BE TAKEN

Noncompletion termination reports that provide an error code usually indicate a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried.

Appropriate mismatch messages will be generated indicating the range of disk blocks where the mismatch occurred. A maximum of eight mismatch error messages will be output per partition. More than eight mismatch messages will result in an early termination.

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. ALARMS

None. This automatically-generated report is for information only.

Manual alarm. This alarm is a manually-requested report.

Major alarm. May not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Formats 1,2,3,4,5, and 6 have OMDB keys of 119,120, and 121.
Format 7 has an OMDB key of 122.
Format 8 has OMDB keys of 124 and 125.
Formats 9 and 10 have OMDB keys of 126 and 127.
Format 11 has OMDB keys of 132 and 133.
Format 12 has OMDB keys of 130 and 131.
Format 13 has OMDB keys of 128 and 129.

Output Appendix
`SYSERR-APP`

Input Messages
`DUMP:MHD;DEF`
`STOP:CMPR;MHD`

Output Message
`CMPR-MHD`

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ID . . . . . COPY-F,CFILE
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `COPY FILESYS CFILE COMPLETED`

[2] `COPY FILESYS CFILE STOPPED`
a

2. REASON FOR OUTPUT

To report the result of executing a `COPY:FILESYS;CFILE` input message to move a file to a contiguous area.

3. VARIABLE FIELD DEFINITIONS

a = The description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success, and no action is necessary.

If Format 2 is printed, the explanatory text will indicate the error encountered. Verify that the command that was input is consistent with the `COPY:FILESYS;CFILE` input message manual page. Use the `OP:STATUS;LISTDIR` input message to verify that the file exists with the appropriate permissions. If the message indicates that there is not enough space on the file system, use the `CLR:FILESYS;FILE` input message to remove some files to create the file space.

If these checks fail to uncover the problem, or if the description of the error is not self-explanatory, seek technical assistance.

5. ALARMS

Manual alarm. This alarm is a manually-requested report.

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 282.
Format 2 has an OMDB key of 288.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
CLR:F;FILE
OP:ST;LSTDIR
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

ID . . . . . COPY-F,FILE
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `COPY FILESYS FILE COMPLETED`

[2] `COPY FILESYS FILE STOPPED`
{C*annot access a* |
a and b are identical}

2. REASON FOR OUTPUT

To report the result of executing a `COPY:FILESYS;FILE` input message to copy a file to another place.

3. VARIABLE FIELD DEFINITIONS

a = Pathname specified in the input message as the source file.

b = Pathname specified in the input message as the destination file.

4. ACTION TO BE TAKEN

Refer to the Input Message manual for the correct format and reenter the message, or check the status of the file using the `OP:STATUS;LISTDIR` input message if a Format 2 message is printed.

Seek technical assistance if any other error message is printed.

5. ALARMS

Manual alarm. This alarm is a manually-requested report.

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 282.

Input Messages
`ALW:F;ACCESS`
`CLR:F;FILE`
`OP:ST;LSTDIR`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message
OP-ST,LSTDIR

ID . . . . . COPY-OOSDISK
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `COPY OOSDISK STOPPED WITH ERROR CODE` *a*

[2] `COPY OOSDISK COMPLETED`

2. REASON FOR OUTPUT

To report the result of executing a `COPY:OOSDISK` input message.

3. VARIABLE FIELD DEFINITIONS

a = Numeric code for the error that caused the process to terminate. The least significant digit (represented as *x*) indicates the module in which the error occurred. *x* is not provided.

Errors associated with UNIX® system calls:

`01x` — mkseg error.
`02x` — Open error.
`03x` — Read error.
`04x` — Stat error.
`05x` — Write error.
`06x` — Close error.
`07x` — Unlink error.
`08x` — setio error.
`09x` — mknod error.
`10x` — msgenab error.
`11x` — Send error.
`12x` — msgport error.
`13x` — Mount error.
`14x` — umount error.
`15x` — cp error.

Errors associated with input message format:

`20x` — Invalid arguments.

The source or destination filename may not exist.

`22x` — Process stopped by an interrupt or termination signal.

`25x` — Bad pathname specified for source file.

SEE PROPRIETARY NOTICE ON COVER PAGE

26x — Disk containing source file is active.

Errors associated with the system integrity monitor (SIM), the maintenance input request administrator (MIRA), and the disk driver:

30x — Message not what was expected.
31x — Tried to reserve two disks.
32x — Tried to release unreserved disk.
33x — New disk state bad.
36x — Timeout for MIRA message.
37x — Timeout for disk driver message.
38x — Bad MIRA return on message.
39x — Bad disk driver return on message.
40x — State result bad.
41x — Timeout for SIM message.

Errors associated with equipment configuration data base manager (ECDMAN) user functions:

50x — ugetucb error.
51x — ugmamirids error.
52x — ursvucb error.
53x — ugsdf error.
54x — urelucb error.
55x — ursdf error.
56x — usettnum error.
57x — usetucb error.

4. ACTION TO BE TAKEN

User execution errors can be corrected by examining the procedures used for execution of the message. If any other errors occur, seek technical assistance.

5. ALARMS

Manual alarm. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 188.

Input Message
```
COPY:OOSDISK
```

ID . . . . . COPY-P,ALL-A
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1]
```
COPY PTN ALL COMPLETED
a BLOCKS COPIED
.
.
.
```

[2]
```
COPY PTN ALL STOPPED
{INVALID SOURCE/DESTINATION SPECIFIED b |
PROCESS STOPPED b |
DISK ACCESS PROCEDURE ABORTED b |
CANNOT COPY PARTITION b |
DISK RESTORAL PROCEDURE ABORTED b}
```

2. REASON FOR OUTPUT

Format 1 indicates the input message completed and successfully invoked the process that copies partions. For each partition, the number of blocks copied is output.

Format 2 indicates the process that copies partitions did not complete successfully. The reason for stopping is indicated.

3. VARIABLE FIELD DEFINITIONS

a = Number of blocks copied (for each partition copied).

b = Numeric code for the error that caused the process to terminate. The least significant digit (represented as *x*) indicates the module of UNIX® RTR code in which the error occurred.

Errors associated with UNIX operating system calls:

- 1x — mkseg error.
- 2x — Open error.
- 3x — Read error.
- 4x — Stat error.
- 5x — Write error.
- 6x — Close error.
- 7x — unlink error.
- 8x — setio error.
- 9x — mknod error.
- 10x — msgenab error.
- 11x — Send error.

SEE PROPRIETARY NOTICE ON COVER PAGE

`12x` — msgport error.

Errors associated with execution:

`20x` — Invalid arguments.

The source or destination filename may not exist, or does not contain a valid list of partition names. The source/destination partition names specified may not be special devices, or they do not exist in the disk. Make sure that valid source/destination partition names are used.

`21x` — Destination is small.

Cannot copy to a partition that is smaller than the source partition. Make sure that the destination partition specified is not smaller than the source partition.

`22x` — Process stopped by an interrupt or termination signal.

`23x` — Cannot overwrite destination partition.

The destination specified may be an active partition or currently in use. For example, if the system is running on primary, `/dev/root` is an active partition. A partition with no backup is considered an active partition. Make sure that the destination partition specified is not an active partition.

`24x` — Disk is not duplexed.

Need both disks active before attempting to do a partition copy.

Errors associated with the system integrity monitor (SIM), the maintenance input request administrator (MIRA), and the disk driver:

`30x` — Message not what was expected.
`31x` — Tried to reserve two disks.
`32x` — Tried to release unreserved disk.
`33x` — New disk state bad.
`36x` — Timeout for MIRA message.
`37x` — Timeout for disk driver message.
`38x` — Bad MIRA return on message.
`39x` — Bad disk driver return on message.
`40x` — State result bad.
`41x` — Timeout for SIM message.

SEE PROPRIETARY NOTICE ON COVER PAGE

Errors associated with the equipment configuration database manager (ECDMAN) user functions:

50x — ugetucb error.
51x — ugmamirids error.
52x — ursvucb error.
53x — ugsdf error.
54x — urelucb error.
55x — ursdf error.
56x — usettnum error.
57x — usetucb error.
58x — ugetrec error.

4. ACTION TO BE TAKEN

For codes 20x-24x, correct the problem and reenter the input message. Seek technical assistance if any other error message is printed.

5. ALARMS

Manual alarm. This alarm is a manually-requested report.

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 288.

Input Message
COPY:PTN;ALL

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . COPY-P,ALL-B
GENERIC . . . . . UNIX RTR R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `COPY PTN ALL COMPLETED`
a `BLOCKS COPIED`
.
.
.

[2] `COPY PTN ALL STOPPED`
{`INVALID SOURCE/DESTINATION SPECIFIED` *b* |
`PROCESS STOPPED` *b* |
`DISK ACCESS PROCEDURE ABORTED` *b* |
`CANNOT COPY PARTITION` *b* |
`DISK RESTORAL PROCEDURE ABORTED` *b* |
`CANNOT CONNECT TO SYSTEM UPDATE PORT`}

2. REASON FOR OUTPUT

Format 1 indicates the input message completed and successfully invoked the process that copies partions. For each partition, the number of blocks copied is output.

Format 2 indicates the process that copies partitions did not complete successfully. The reason for stopping is indicated.

3. VARIABLE FIELD DEFINITIONS

a = Number of blocks copied (for each partition copied).

b = Numeric code for the error that caused the process to terminate. The least significant digit (represented as *x*) indicates the module of UNIX® RTR code in which the error occurred.

Errors associated with UNIX operating system calls:

`1x` — mkseg error.
`2x` — Open error.
`3x` — Read error.
`4x` — Stat error.
`5x` — Write error.
`6x` — Close error.
`7x` — unlink error.
`8x` — setio error.
`9x` — mknod error.
`10x` — msgenab error.

SEE PROPRIETARY NOTICE ON COVER PAGE

`11x` — Send error.
`12x` — msgport error.

Errors associated with execution:

`20x` — Invalid arguments.

The source or destination filename may not exist, or does not contain a valid list of partition names. The source/destination partition names specified may not be special devices, or they do not exist in the disk. Make sure that valid source/destination partition names are used.

`21x` — Destination is small.

Cannot copy to a partition that is smaller than the source partition. Make sure that the destination partition specified is not smaller than the source partition.

`22x` — Process stopped by an interrupt or termination signal.

`23x` — Cannot overwrite destination partition.

The destination specified may be an active partition or currently in use. For example, if the system is running on primary, `/dev/root` is an active partition. A partition with no backup is considered an active partition. Make sure that the destination partition specified is not an active partition.

`24x` — Disk is not duplexed.

Need both disks active before attempting to do a partition copy.

Errors associated with the system integrity monitor (SIM), the maintenance input request administrator (MIRA), and the disk driver:

`30x` — Message not what was expected.
`31x` — Tried to reserve two disks.
`32x` — Tried to release unreserved disk.
`33x` — New disk state bad.
`36x` — Timeout for MIRA message.
`37x` — Timeout for disk driver message.
`38x` — Bad MIRA return on message.
`39x` — Bad disk driver return on message.
`40x` — State result bad.
`41x` — Timeout for SIM message.

SEE PROPRIETARY NOTICE ON COVER PAGE

Errors associated with the equipment configuration database manager (ECDMAN) user functions:

- `50x` — ugetucb error.
- `51x` — ugmamirids error.
- `52x` — ursvucb error.
- `53x` — ugsdf error.
- `54x` — urelucb error.
- `55x` — ursdf error.
- `56x` — usettnum error.
- `57x` — usetucb error.
- `58x` — ugetrec error.

4. ACTION TO BE TAKEN

For codes `20x-24x`, correct the problem and reenter the input message. Seek technical assistance if any other error message is printed.

5. ALARMS

Manual alarm. This alarm is a manually-requested report.

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 288.

Input Message
`COPY:PTN;ALL`

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . COPY-PID
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `COPY PID` *a b c #d*

[2] `COPY PID` *e* `NOT STARTED`
`CONFLICT WITH CURRENT SYSTEM STATUS` *f*

[3] `COPY PID` *e* `NOT STARTED`
`INVALID ID FIELD` *g*

[4] `COPY PID` *e* `NOT STARTED`
`RETRY LATER` *h*

2. REASON FOR OUTPUT

To report the completion of a `COPY` input message.

3. VARIABLE FIELD DEFINITIONS

a = Process ID.

b = Source of the data copied.

`ADDR` *f*	— Virtual address.
`PID` *h*`, ADDR` *f*	— Process ID of process and virtual address.
`REG` *e*	— Register.
`UID` *g*`, ADDR` *f*	— Utility ID of process and virtual address.
`UVAR` *d*	— Utility variable.

c = Termination status of the operation:

`COMPLETED`	— Request successfully completed.
`NOT STARTED NGPID`	— The `COPY` was stopped because the process does not exist.
`NOT STARTED NGUID`	— The `COPY` was stopped because no copies of the process exist.

SEE PROPRIETARY NOTICE ON COVER PAGE

STOPPED NGADDR — The COPY was stopped because the address specified is not valid for the process, or invalid address values were encountered in the address chain if offsets were specified.

STOPPED NGPROT — The COPY was stopped because the destination address does not have write permission granted.

STOPPED NGCOPY — The COPY was stopped because some other error occurred in moving the data.

d = Generic access package (GRASP) execution sequence number.

e = PID.

UID.

f = Bad PID.

g = Test phrase:

```
EXTRA KEYWORD (PID).

INCONSISTENT KEYWORDS (NL-OFF).

INPUT ERROR (OFF COUNT).

INVALID KEYWORD.

RANGE ERROR (L or NL).

RANGE ERROR (PID).

RANGE ERROR (UVAR).
```

h = The system is in an overload condition.

4. ACTION TO BE TAKEN

If *c* is NOT STARTED NGPID, the process did not exist at the time the COPY was attempted. Consider using the process UID instead of the PID.

If *c* is NOT STARTED NGUID, the process did not exist at the time the COPY was attempted. If this happens repeatedly, a breakpoint could be defined and enabled for the process while no copies of the process exist. At the time a copy is created, the breakpoint would be planted in the enabled state.

If *c* is STOPPED NGADDR, recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the COPY command in the action list. This will help control the exact circumstances under which the operation is performed.

SEE PROPRIETARY NOTICE ON COVER PAGE

If *c* is `STOPPED NGPROT`, recheck the destination to verify that it indicates a writable area. To change program text, use the `LOAD:UPNM` input message.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Formats 1 through 4 have an OMDB key of 494.

Input Messages
- `COPY:ADDR`
- `COPY:REG`
- `COPY:UID`
- `COPY:UVAR`
- `DUMP:PID`
- `OP:ST;PROC`
- `WHEN:PID`
- `WHEN:UID`

Output Messages
- `COPY-ADDR`
- `COPY-REG`
- `COPY-UID`
- `COPY-UVAR`

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . COPY-REG
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `COPY REG` *a b #c*

[2] `COPY REG` *d* `NOT STARTED`
`CONFLICT WITH CURRENT SYSTEM STATUS` *e*

[3] `COPY REG` *d* `NOT STARTED`
`INVALID ID FIELD` *f*

[4] `COPY REG` *d* `NOT STARTED`
`RETRY LATER` *g*

2. REASON FOR OUTPUT

To report the completion of a `COPY` input message.

3. VARIABLE FIELD DEFINITIONS

a = Valid register name (valid register names are listed in the `COPY:REG` input manual page).

b = Termination status of the operation:

`COMPLETED` — Request successfully completed.

`NOT STARTED NGPID` — The `COPY` was stopped because the process does not exist.

`NOT STARTED NGUID` — The `COPY` was stopped because no copies of the process exist.

`STOPPED NGADDR` — The `COPY` was stopped because the address specified is not valid for the process, or invalid address values were encountered in the address chain if offsets were specified.

`STOPPED NGPROT` — The `COPY` was stopped because the destination address does not have write permission granted.

`STOPPED NGCOPY` — The `COPY` was stopped because some other error occurred in moving the data.

SEE PROPRIETARY NOTICE ON COVER PAGE

c = Generic access package (GRASP) execution sequence number.

d = `PID`.

`UID`.

e = Bad PID.

f = Test phrase:

— `INCONSISTENT KEYWORDS (NL-OFF).`

— `INPUT ERROR (OFF COUNT).`

— `INVALID KEYWORD.`

— `RANGE ERROR (L or NL).`

— `RANGE ERROR (PID).`

— `RANGE ERROR (UVAR).`

g = The system is in an overload condition.

4. ACTION TO BE TAKEN

If *b* is `NOT STARTED NGPID`, the process did not exist at the time the `COPY` was attempted. Consider using the process UID instead of the PID.

If *b* is `NOT STARTED NGUID`, the process did not exist at the time the `COPY` was attempted. If this happens repeatedly, a breakpoint could be defined and enabled for the process while no copies of the process exist. At the time a copy is created, the breakpoint would be planted in the enabled state.

If *b* is `STOPPED NGADDR`, recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the `COPY` command in the action list. This will help control the exact circumstances under which the operation is performed.

If *b* is `STOPPED NGPROT`, recheck the destination to verify that it indicates a writable area. To change program text, use the `LOAD:UPNM` input message.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Formats 1 through 4 have an OMDB key of 494.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
COPY:ADDR
COPY:PID
COPY:UID
COPY:UVAR
DUMP:REG
LOAD:REG
OP:ST;PROC
WHEN:PID
WHEN:UID
```

Output Messages

```
COPY-ADDR
COPY-PID
COPY-UID
COPY-UVAR
```

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . COPY-SPDISK-A
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `COPY SPDISK COPIED` *a* `BLOCKS`

[2] `COPY SPDISK COMPLETED`

[3] `COPY SPDISK STOPPED WITH ERROR CODE` *b*

2. REASON FOR OUTPUT

To report the result of executing a `COPY:SPDISK` input message, and to provide status information.

3. VARIABLE FIELD DEFINITIONS

a = Number of blocks written for each partition copied.

b = Numeric code for the error that caused the process to terminate. The least significant digit (represented as *x*) indicates the module in which the error occurred. *x* is not provided.

Errors associated with UNIX® system calls:

`01x` — mkseg error.
`02x` — Open error.
`03x` — Read error.
`04x` — Stat error.
`05x` — Write error.
`06x` — Close error.
`07x` — unlink error.
`08x` — setio error.
`09x` — mknod error.
`10x` — msgenab error.
`11x` — send error.
`12x` — msgport error.

SEE PROPRIETARY NOTICE ON COVER PAGE

Errors associated with input message format:

`20x` — Invalid arguments.

The source or destination filename may not exist, or does not contain a valid list of partition names. The source/destination partition names specified may not be special devices, or they do not exist in the disk. Make sure that valid source/destination partition names are used.

`21x` — Destination is small.

Cannot copy to a partition that is smaller than the source partition. Make sure that the destination partition specified is not smaller than the source partition.

`22x` — Process stopped by an interrupt or termination signal.

`24x` — Disk is not duplexed.

Need both disks active before attempting to do a cpspdisk.

Errors associated with the system integrity monitor (SIM), the maintenance input request administrator (MIRA), and the disk driver:

`30x` — Message not what was expected.
`31x` — Tried to reserve two disks.
`32x` — Tried to release unreserved disk.
`33x` — New disk state bad.
`36x` — Timeout for MIRA message.
`37x` — Timeout for disk driver message.
`38x` — Bad MIRA return on message.
`39x` — Bad disk driver return on message.
`40x` — State result bad.
`41x` — Timeout for SIM message.

Errors associated with equipment configuration data base manager (ECDMAN) user functions:

`50x` — ugetucb error.
`51x` — ugmamirids error.
`52x` — ursvucb error.
`53x` — ugsdf error.
`54x` — urelucb error.
`55x` — ursdf error.
`56x` — usettnum error.
`57x` — usetucb error.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

User execution errors can be corrected by examining the procedures used for execution of the message. If any other errors occur, seek technical assistance.

5. ALARMS

Manual alarm. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Formats 1, 2, and 3 have an OMDB key of 188.

Input Message
```
COPY:SPDISK
```

ID . . . . . COPY-SPDISK-B
GENERIC . . . . . UNIX RTR R21.27 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `COPY SPDISK COPIED` *a* `BLOCKS`

[2] `COPY SPDISK COMPLETED`

[3] `COPY SPDISK STOPPED WITH ERROR CODE` *b*

2. REASON FOR OUTPUT

To report the result of executing a `COPY:SPDISK` input message, and to provide status information.

3. VARIABLE FIELD DEFINITIONS

a = Number of blocks written for each partition copied.

b = Numeric code for the error that caused the process to terminate. The least significant digit (represented as *x*) indicates the module in which the error occurred. *x* is not provided.

Errors associated with UNIX® system calls:

`01x` — mkseg error.
`02x` — Open error.
`03x` — Read error.
`04x` — Stat error.
`05x` — Write error.
`06x` — Close error.
`07x` — unlink error.
`08x` — setio error.
`09x` — mknod error.
`10x` — msgenab error.
`11x` — send error.
`12x` — msgport error.
`13x` — mount error.
`14x` — umount error.

SEE PROPRIETARY NOTICE ON COVER PAGE

Errors associated with input message format:

`20x` — Invalid arguments.

The source or destination filename may not exist, or does not contain a valid list of partition names. The source/destination partition names specified may not be special devices, or they do not exist in the disk. Make sure that valid source/destination partition names are used.

`21x` — Destination is small.

Cannot copy to a partition that is smaller than the source partition. Make sure that the destination partition specified is not smaller than the source partition.

`22x` — Process stopped by an interrupt or termination signal.

`24x` — Disk is not duplexed.

Need both disks active before attempting to do a cpspdisk.

Errors associated with the system integrity monitor (SIM), the maintenance input request administrator (MIRA), and the disk driver:

`30x` — Message not what was expected.
`31x` — Tried to reserve two disks.
`32x` — Tried to release unreserved disk.
`33x` — New disk state bad.
`36x` — Timeout for MIRA message.
`37x` — Timeout for disk driver message.
`38x` — Bad MIRA return on message.
`39x` — Bad disk driver return on message.
`40x` — State result bad.
`41x` — Timeout for SIM message.

Errors associated with equipment configuration data base manager (ECDMAN) user functions:

`50x` — ugetucb error.
`51x` — ugmamirids error.
`52x` — ursvucb error.
`53x` — ugsdf error.
`54x` — urelucb error.
`55x` — ursdf error.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

User execution errors can be corrected by examining the procedures used for execution of the message. If any other errors occur, seek technical assistance.

5. ALARMS

Manual alarm. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Formats 1, 2, and 3 have an OMDB key of 188.

Input Message
```
COPY:SPDISK
```

ID . . . . . COPY-T,EMERDMP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `COPY TAPE EMERDMP COMPLETED`
a `+` *a* `RECORDS IN`
a `+` *a* `RECORDS OUT`

[2] `COPY TAPE EMERDMP STOPPED`
{`DD:CANNOT OPEN /dev/mt` *b* |
`DD:CANNOT CREATE /dev/panic` |
`DD:NOT ENOUGH MEMORY` |
`DD READ ERROR`
`DD WRITE ERROR`}

2. REASON FOR OUTPUT

To report the result of executing a `COPY:TAPE;EMERDMP` input message to copy emergency dump data from a disk partition to a magnetic tape with a header block.

Format 1 is printed when the input message executed successfully. Format 2 is printed when errors were encountered.

3. VARIABLE FIELD DEFINITIONS

a = Record counts.

b = Tape drive specified in the input message.

4. ACTION TO BE TAKEN

Refer to the Input Message manual for the correct format and reenter the input message if `Cannot open /dev/mt...` is printed. Seek technical assistance if any other Format 2 message is printed.

5. ALARMS

Manual alarm. This alarm is a manually-requested report.

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 282.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
CLR:EMERDMP
COPY:T;EMERDMP
OP:EMERSTAT
OP:ST;FILESYS
```

Output Messages

```
OP-EMERSTAT
OP-ST,FILESYS
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

ID . . . . . COPY-T,IN
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `COPY TAPE IN {STARTED | IN PROGRESS SEGMENT` *a* `| COMPLETED SEGMENT` *a* `}`
b

[2] `COPY TAPE IN STOPPED CANNOT OPEN` *c* `FOR INPUT`

[3] `COPY TAPE IN STOPPED CANNOT CHANGE DIRECTORY TO BSDIR` *c*

[4] `COPY TAPE IN STOPPED`
d

2. REASON FOR OUTPUT

To report the result of executing a `COPY:TAPE;IN` input message to files from a magnetic tape.

Format 1 indicates successful execution.

Format 2 - 4 indicate failure.

3. VARIABLE FIELD DEFINITIONS

a = Output segment number.

b = List of files and / or the number of blocks read from the tape.

c = Pathname specified in the input message.

d = Explanation of the error encountered while reading the tape.

4. ACTION TO BE TAKEN

Format 1 indicates success. Take no action.

If formats 2 or 3 are printed, correct any input message line errors. The existence of a directory can be confirmed using the `OP:STATUS;LISTDIR` input message.

If format 4 is printed and the text is not self-explanatory, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

Manual alarm. This alarm is a manually-requested report.

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 282.
Formats 2 and 3 have an OMDB key of 286
Format 4 has an OMDB key of 288.

Input Messages
```
COPY:T;IN
COPY:T;OUT
OP:ST;LSTDIR
```

Output Message
```
COPY-T,OUT
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

ID . . . . . COPY-T,OUT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `COPY TAPE OUT {STARTED | IN PROGRESS SEGMENT` *a* `|`
`COMPLETED SEGMENT` *a* `}`
b

[2] `COPY TAPE OUT STOPPED CANNOT OPEN` *c* `FOR INPUT`

[3] `COPY TAPE OUT STOPPED CANNOT CHANGE DIRECTORY`
`TO BSDIR` *c*

[4] `COPY TAPE OUT STOPPED`
d

2. REASON FOR OUTPUT

To report the result of executing a `COPY:TAPE;OUT` input message to write one or more files on a magnetic tape.

Format 1 indicates successful execution. Formats 2 - 4 indicate failure.

3. VARIABLE FIELD DEFINITIONS

a = Output segment number.

b = List of files and / or the number of blocks written to the tape.

c = Pathname specified in the input message.

d = Explanation of the error encountered while writing the tape.

4. ACTION TO BE TAKEN

Format 1 indicates success. Take no action.

If formats 2 or 3 are printed, correct any input message line errors. The existence of a file or directory can be confirmed using the `OP:STATUS;LISTDIR` input command.

If format 4 is printed and the text is not self-explanatory, seek technical assistance.

5. ALARMS

Manual alarm. This alarm is a manually-requested report.

SEE PROPRIETARY NOTICE ON COVER PAGE

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 282.
Format 2 has an OMDB key of 286.
Format 4 has an OMDB key of 288.

Input Messages
```
COPY:T;IN
COPY:T;OUT
OP:ST;LSTDIR
```

Output Message
```
COPY-T,IN
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

ID . . . . . COPY-T,TEST
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `COPY TAPE TEST COMPLETED`
a

[2] `COPY TAPE TEST STOPPED`
`CANNOT OPEN` *b* `|`
`CANNOT OPEN /DIAG/DATABL/TSTTAPE |`
`CANNOT CREATE /DIAG/DATABL/TSTTAPE |`
`NOT ENOUGH MEMORY |`
`DD WRITE ERROR |`

2. REASON FOR OUTPUT

To report the result of executing a `COPY:TAPE;TEST` input command to write a header block on a magnetic tape.

3. VARIABLE FIELD DEFINITIONS

a = Record counts.

b = Pathname specified in the input command for the tape drive.

4. ACTION TO BE TAKEN

Reenter the input command using the correct tape drive if the first message shown in Format 2 is printed.

Seek technical assistance if another Format 2 message or any other error message is printed.

5. ALARMS

Manual alarm. This alarm is a manually-requested report.

None. This automatically-generated report is for information only.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Key
There is an OMDB key of 282.

Input Message
```
COPY:T;TEST
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

ID . . . . . COPY-T,TOP
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1]
```
COPY TAPE TOP COMPLETED
a + a records in
a + a records out
```

[2]
```
COPY TAPE TOP COMPLETED
a + a records in
a + a records out
a + a records in
a + a records out
```

[3]
```
COPY TAPE TOP STOPPED
{NO TOPFILE EXISTS  |
UNKNOWN HARDWARE PLATFORM |
dd: cannot open b |
dd: cannot create c|
dd: not enough memory |
dd read error |
dd write error}
```

2. REASON FOR OUTPUT

To report the result of executing a `COPY:TAPE;TOP` input message to copy a Tape-Only Program (TOP) file(s) from disk to tape.

Format 1 prints when the input message executes successfully, and the `COM` option is not used. This output prints when copying the standard main memory (SMM) or extended main memory (EMM) TOP file, the very large main memory (VLMM) TOP file, or the 3B21D TOP file, based upon the hardware-platform type.

Format 2 prints when the input message executes successfully, and the `COM` option is used. This output prints when copying both the VLMM TOP file and the 3B21D TOP file. The first set of record counts indicates the VLMM TOP file, and the second set of record counts indicates the 3B21D TOP file.

Format 3 prints when errors are encountered.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

a = Record counts.

b = The pathname of a TOP file: `/etc/topfile`, `/etc/topfile32`, `/etc/topfile64`, or `/etc/topfile21`.

c = The pathname specified in the input command for the tape drive.

4. ACTION TO BE TAKEN

For Format 3, if `NO TOPFILE EXISTS` prints, be sure that the correct topfile is present in the `/etc` directory.

If `dd: cannot create /dev/mt...` prints, refer to the input message manual for the correct format and try the input message again.

Seek technical assistance for any other Format 3 message.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1, 2, and 3 have an OMDB key of 288.

Input Message
```
COPY:T;TOP
```

ID . . . . . COPY-UID
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `COPY UID` *a b c #d*

[2] `COPY UID` *e* `NOT STARTED`
`CONFLICT WITH CURRENT SYSTEM STATUS` *f*

[3] `COPY UID` *e* `NOT STARTED`
`INVALID ID FIELD` *g*

[4] `COPY UID` *e* `NOT STARTED`
`RETRY LATER` *h*

2. REASON FOR OUTPUT

To report the completion of a `COPY` input message.

3. VARIABLE FIELD DEFINITIONS

a = Utility ID.

b = Source of the data copied.

`ADDR` *f* — Virtual address.
`PID` *h*`, ADDR` *f* — Process ID of process and virtual address.
`REG` *e* — Register.
`UID` *g*`, ADDR` *f* — Utility ID of process and virtual address.
`UVAR` *d* — Utility variable.

c = Termination status of the operation:

`COMPLETED` — Request successfully completed.

`NOT STARTED NGPID` — The `COPY` was stopped because the process does not exist.

`NOT STARTED NGUID` — The `COPY` was stopped because no copies of the process exist.

SEE PROPRIETARY NOTICE ON COVER PAGE

`STOPPED NGADDR` — The `COPY` was stopped because the address specified is not valid for the process, or invalid address values were encountered in the address chain if offsets were specified.

`STOPPED NGPROT` — The `COPY` was stopped because the destination address does not have write permission granted.

`STOPPED NGCOPY` — The `COPY` was stopped because some other error occurred in moving the data.

d = Generic access package (GRASP) execution sequence number.

e = PID.

UID.

f = Bad PID.

g = Test phrase:

```
EXTRA KEYWORD (PID).

INCONSISTENT KEYWORDS (NL-OFF).

INPUT ERROR (OFF COUNT).

INVALID KEYWORD.

RANGE ERROR (L or NL).

RANGE ERROR (PID).

RANGE ERROR (UVAR).
```

h = The system is in an overload condition.

4. ACTION TO BE TAKEN

If *c* is `NOT STARTED NGPID`, the process did not exist at the time the `COPY` was attempted. Consider using the process UID instead of the PID.

If *c* is `NOT STARTED NGUID`, the process did not exist at the time the `COPY` was attempted. If this happens repeatedly, a breakpoint could be defined and enabled for the process while no copies of the process exist. At the time a copy is created, the breakpoint would be planted in the enabled state.

SEE PROPRIETARY NOTICE ON COVER PAGE

If *c* is `STOPPED NGADDR`, recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the `COPY` command in the action list. This will help control the exact circumstances under which the operation is performed.

If *c* is `STOPPED NGPROT`, recheck the destination to verify that it indicates a writable area. To change program text, use the `LOAD:UPNM` input message.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Formats 1 through 4 have an OMDB key of 494.

Input Messages
`COPY:ADDR`
`COPY:PID`
`COPY:REG`
`COPY:UID`
`COPY:UVAR`
`DUMP:UID`
`OP:ST;PROC`
`WHEN:PID`
`WHEN:UID`

Output Messages
`COPY-ADDR`
`COPY-PID`
`COPY-REG`
`COPY-UVAR`

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . COPY-UVAR
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `COPY UVAR` *a b #c*

[2] `COPY UVAR` *d* `NOT STARTED`
`CONFLICT WITH CURRENT SYSTEM STATUS` *e*

[3] `COPY UVAR` *d* `NOT STARTED`
`INVALID ID FIELD` *f*

[4] `COPY UVAR` *d* `NOT STARTED`
`RETRY LATER` *g*

2. REASON FOR OUTPUT

To report the completion of a `COPY` input message.

3. VARIABLE FIELD DEFINITIONS

a = Utility variable number.

b = Termination status of the operation:

`COMPLETED` — Request successfully completed.

`NOT STARTED NGPID` — The `COPY` was stopped because the process does not exist.

`NOT STARTED NGUID` — The `COPY` was stopped because no copies of the process exist.

`STOPPED NGADDR` — The `COPY` was stopped because the address specified is not valid for the process, or invalid address values were encountered in the address chain if offsets were specified.

SEE PROPRIETARY NOTICE ON COVER PAGE

`STOPPED NGPROT` — The `COPY` was stopped because the destination address does not have write permission granted.

`STOPPED NGCOPY` — The `COPY` was stopped because some other error occurred in moving the data.

c = Generic access package (GRASP) execution sequence number.

d = `PID`.

= `UID`.

e = Bad PID.

f = Test phrase:

— `EXTRA KEYWORD (PID).`

— `INCONSISTENT KEYWORDS (NL-OFF).`

— `INPUT ERROR (OFF COUNT).`

— `INVALID KEYWORD.`

— `RANGE ERROR (L or NL).`

— `RANGE ERROR (PID).`

— `RANGE ERROR (UVAR).`

g = The system is in an overload condition.

4. ACTION TO BE TAKEN

If *b* is `NOT STARTED NGPID`, the process did not exist at the time the `COPY` was attempted. Consider using the process UID instead of the PID.

If *b* is `NOT STARTED NGUID`, the process did not exist at the time the `COPY` was attempted. If this happens repeatedly, a breakpoint could be defined and enabled for the process while no copies of the process exist. At the time a copy is created, the breakpoint would be planted in the enabled state.

If *b* is `STOPPED NGADDR`, recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the `COPY` command in the action list. This will help control the exact circumstances under which the operation is performed.

If *b* is `STOPPED NGPROT`, recheck the destination to verify that it indicates a writable area. To change program text, use the `LOAD:UPNM` input message.

5. ALARMS

None. This alarm is a manually-requested report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Key
Formats 1 through 4 have an OMDB key of 494.

Input Messages
COPY:ADDR
COPY:PID
COPY:REG
COPY:UID
DUMP:UVAR
LOAD:UVAR
OP:ST;PROC
WHEN:PID
WHEN:UID

Output Messages
COPY-ADDR
COPY-PID
COPY-REG
COPY-UID

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . CU-RECOVERY
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has one format.

```
CU RECOVERY COMPLETE
```

2. REASON FOR OUTPUT

To indicate that the UNIX® RTR portion of a recovery action has completed.

3. VARIABLE FIELD DEFINITIONS

None

4. ACTION TO BE TAKEN

Take no action.

5. ALARMS

None.

6. REFERENCES

Output Message
RCVRY-ALARM
START-OF

Other Manual(s)
235-105-250 System Recovery

Section 3

Output Message Alphabetical Indexes

Message Name	Message ID	Generic
ACTV OMDB	ACTV-OMDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW AUD	ALW-AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW CONFLOG	ALW-CONFLOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW DMQ	ALW-DMQ-A	UNIX RTR R1.5 only
ALW DMQ	ALW-DMQ-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW EAIINT	ALW-EAIINT	UNIX RTR R21.3, R21.11, R21.15 and later
ALW ERRCHK	ALW-ERRCHK-A	UNIX RTR R1.5 only
ALW ERRCHK	ALW-ERRCHK-B	UNIX RTR R6.4 only
ALW ERRCHK	ALW-ERRCHK-C	UNIX RTR R21.3, R21.11, R21.15 and later
ALW ERRINT	ALW-ERRINT-A	UNIX RTR R1.5 only
ALW ERRINT	ALW-ERRINT-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW ERRSRC	ALW-ERRSRC-A	UNIX RTR R1.5 only
ALW ERRSRC	ALW-ERRSRC-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW FILESYS ACCESS	ALW-F,ACCESS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW FILESYS MOUNT	ALW-F,MOUNT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW FILESYS OWNER	ALW-F,OWNER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW HDWCHK	ALW-HDWCHK-A	UNIX RTR R1.5 only
ALW HDWCHK	ALW-HDWCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW REX	ALW-REX	UNIX RTR R21.3, R21.11, R21.15 and later
ALW SCSD	ALW-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
ALW SFTCHK	ALW-SFTCHK-A	UNIX RTR R1.5 only
ALW SFTCHK	ALW-SFTCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW UMEM	ALW-UMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW UTIL	ALW-UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW UTILFLAG	ALW-UTILFLAG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ANALY TLPFILE	ANALY-TLPFILE-A	UNIX RTR R1.5, R6.4, and R21.3,
ANALY TLPFILE	ANALY-TLPFILE-B	UNIX RTR R21.11, R21.15, R21.17 and R21.31
ANALY TLPFILE	ANALY-TLPFILE-C	UNIX RTR R21.23, R21.27 and R21.30
ANALY TLPFILE	ANALY-TLPFILE-D	UNIX RTR R21.35 and later
APPENDIX ACKDGMNT DATABASE	APP-ACK-DB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT A	APP-AUD-APPA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT B	APP-AUD-APPB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT C	APP-AUD-APPC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT D	APP-AUD-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUTHORITY CODE	APP-AUTH-CODE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX BOOTDISKCHK	APP-BOOTDISKCHK	UNIX RTR R21.27 and later
APPENDIX DCI A	APP-DCI-APPA-A	UNIX RTR R21.3 and R21.11
APPENDIX DCI A	APP-DCI-APPA-B	UNIX RTR R21.15 thru R21.30
APPENDIX DCI A	APP-DCI-APPA-C	UNIX RTR R21.31 and later
APPENDIX DCI B	APP-DCI-APPB-A	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI C	APP-DCI-APPC	UNIX RTR R21.3, R21.11, R21.15 and later

SEE PROPRIETARY NOTICE ON COVER PAGE

Message Name	Message ID	Generic
APPENDIX DCI D	APP-DCI-APPD	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI E	APP-DCI-APPE	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI F	APP-DCI-APPF	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI G	APP-DCI-APPG	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI H	APP-DCI-APPH	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DFC A	APP-DFC-APPA-A	UNIX RTR R1.5 only
APPENDIX DFC A	APP-DFC-APPA-B	UNIX RTR R6.4 only
APPENDIX DFC A	APP-DFC-APPA-C	UNIX RTR R21.3 only
APPENDIX DFC A	APP-DFC-APPA-D	UNIX RTR R21.11, R21.15, 21.19 thru 21.25
APPENDIX DFC A	APP-DFC-APPA-F	UNIX RTR R21.23 only
APPENDIX DFC A	APP-DFC-APPA-G	UNIX RTR R21.27 and R21.30
APPENDIX DFC A	APP-DFC-APPA-H	UNIX RTR R21.31, R21.33 and later
APPENDIX DFC B	APP-DFC-APPB-A	UNIX RTR R1.5 and R6.4
APPENDIX DFC B	APP-DFC-APPB-B	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DFC C	APP-DFC-APPC-A	UNIX RTR R1.5 and R6.4
APPENDIX DFC C	APP-DFC-APPC-B	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DFC D	APP-DFC-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC E	APP-DFC-APPE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC F	APP-DFC-APPF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC G	APP-DFC-APPG-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
APPENDIX DFC G	APP-DFC-APPG-B	UNIX RTR R21.11 and R21.15
APPENDIX DFC H	APP-DFC-APPH-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
APPENDIX DFC H	APP-DFC-APPH-B	UNIX RTR R21.11 and R21.15
APPENDIX DFC I	APP-DFC-APPI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
APPENDIX DFC J	APP-DFC-APPJ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC K	APP-DFC-APPK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC L	APP-DFC-APPL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC M	APP-DFC-APPM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC N	APP-DFC-APPN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC O	APP-DFC-APPO	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC P	APP-DFC-APPP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX FAULT CODE	APP-FAULT-CODE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX FIELD MAINT CODES	APP-FMC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX FLD UDATE ERROR CODES	APP-FUEC-APP	UNIX R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP A	APP-IOP-APPA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP B	APP-IOP-APPB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP C	APP-IOP-APPC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP D	APP-IOP-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP E	APP-IOP-APPE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP F	APP-IOP-APPF-A	UNIX RTR R1.5 and R6.4
APPENDIX IOP F	APP-IOP-APPF-B	UNIX RTR R21.3, R21.11, R21.15 thru R21.25
APPENDIX IOP F	APP-IOP-APPF-C	UNIX RTR R21.27 and later

Message Name	Message ID	Generic
APPENDIX IOP G	APP-IOP-APPG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP H	APP-IOP-APPH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP I	APP-IOP-APPI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP J	APP-IOP-APPJ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX LLA	APP-LLA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MEMBER NUMBERS B	APP-MEM-NUM-APPB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MEMBER NUMBERS C	APP-MEM-NUM-APPC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MEMBER NUMBERS D	APP-MEM-NUM-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MESSAGE CLASS	APP-MSGCLASS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX OMDB X REF	APP-OMDB-REF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX OP FNAME	APP-OP-FNAME	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX OST	APP-OST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX SUPR	APP-SUPR-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
APPENDIX SUPR	APP-SUPR-B	UNIX RTR R21.27 and later
APPENDIX SUPR MENU PAGE	APP-SUPR-MENU-PG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX SYSTEM ERROR CODES	APP-SYSERR-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
APPENDIX SYSTEM ERROR CODES	APP-SYSERR-B	UNIX RTR R21.11 and R21.15
APPENDIX TAPE LIBRARY ERRORS	APP-TAPE-LIB	UNIX RTR R21.15 and later
APPENDIX UTILITY ID	APP-UTIL-ID-A	UNIX RTR R1.5, R6.4, R21.3, and R21.11
APPENDIX UTILITY ID	APP-UTIL-ID-B	UNIX RTR R21.15 and later

Message Name	Message ID	Generic
APPLY OMDB	APPLY-OMDB-A	UNIX RTR R1.5 only
APPLY OMDB	APPLY-OMDB-B	UNIX RTR R6.4 and R21.3
APPLY OMDB	APPLY-OMDB-C	UNIX RTR R21.11, R21.15 and later
AUD CUMEM	AUD-CUMEM-A	UNIX RTR R1.5 only
AUD CUMEM	AUD-CUMEM-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD CUSTAT	AUD-CUSTAT-A	UNIX RTR R1.5 only
AUD CUSTAT	AUD-CUSTAT-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD ECD	AUD-ECD-A	UNIX RTR R1.5 only
AUD ECD	AUD-ECD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD ECDOWN	AUD-ECDOWN-A	UNIX RTR R1.5 only
AUD ECDOWN	AUD-ECDOWN-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 1	AUD-FMGR1-A	UNIX RTR R1.5 only
AUD FMGR 1	AUD-FMGR1-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 2	AUD-FMGR2-A	UNIX RTR R1.5 only
AUD FMGR 2	AUD-FMGR2-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 3	AUD-FMGR3-A	UNIX RTR R1.5 only
AUD FMGR 3	AUD-FMGR3-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 4	AUD-FMGR4-A	UNIX RTR R1.5 only
AUD FMGR 4	AUD-FMGR4-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 5	AUD-FMGR5-A	UNIX RTR R1.5 only
AUD FMGR 5	AUD-FMGR5-B	UNIX RTR R6.4 only
AUD FMGR 5	AUD-FMGR5-C	UNIX RTR R21.3, R21.11, R21.15 and later
AUD FMGR 6	AUD-FMGR6-A	UNIX RTR R1.5 only
AUD FMGR 6	AUD-FMGR6-B	UNIX RTR R6.4, R21.11, R21.15 thru R21.27
AUD FMGR 6	AUD-FMGR6-C	UNIX RTR R21.3, R21.29 and later
AUD FMGR 7	AUD-FMGR7-A	UNIX RTR R1.5 only
AUD FMGR 7	AUD-FMGR7-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
AUD FMGR 8	AUD-FMGR8-A	UNIX RTR R1.5 only
AUD FMGR 8	AUD-FMGR8-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 9	AUD-FMGR9-A	UNIX RTR R1.5 only
AUD FMGR 9	AUD-FMGR9-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FSBLK	AUD-FSBLK-A	UNIX RTR R1.5 only
AUD FSBLK	AUD-FSBLK-B	UNIX RTR R6.4 only
AUD FSBLK	AUD-FSBLK-C	UNIX RTR R21.3 and R21.11
AUD FSBLK	AUD-FSBLK-D	UNIX RTR R21.15 and later
AUD FSCMPT	AUD-FSCMPT-A	UNIX RTR R1.5 only
AUD FSCMPT	AUD-FSCMPT-B	UNIX RTR R6.4 only
AUD FSCMPT	AUD-FSCMPT-C	UNIX RTR R21.3 and R21.11
AUD FSCMPT	AUD-FSCMPT-D	UNIX RTR R21.15 and later
AUD FSLINK	AUD-FSLINK-A	UNIX RTR R1.5 only
AUD FSLINK	AUD-FSLINK-B	UNIX RTR R6.4 only
AUD FSLINK	AUD-FSLINK-C	UNIX RTR R21.3 and R21.11
AUD FSLINK	AUD-FSLINK-D	UNIX RTR R21.15 and later
AUD MMGR	AUD-MMGR-A	UNIX RTR R1.5 only
AUD MMGR	AUD-MMGR-B	UNIX RTR R6.4 only
AUD MMGR	AUD-MMGR-C	UNIX RTR R21.3, R21.11, R21.15 and later
AUD MSGBUF	AUD-MSGBUF-A	UNIX RTR R1.5 only
AUD MSGBUF	AUD-MSGBUF-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD PMS	AUD-PMS-A	UNIX RTR R1.5 only
AUD PMS	AUD-PMS-B	UNIX RTR R6.4, R21.11, R21.15 and R21.17
AUD PMS	AUD-PMS-C	UNIX RTR R21.3, R21.19 and later
AUD PROAD	AUD-PROAD-A	UNIX RTR R1.5 only
AUD PROAD	AUD-PROAD-B	UNIX RTR R6.4 only
AUD PROAD	AUD-PROAD-C	UNIX RTR R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
CFR DUPLEXDISKS	CFR-DUPLEXDISKS	UNIX R21.27 and later
CLR EMERDMP	CLR-EMERDMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR FILESYS DIR	CLR-F,DIR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR FILESYS FILE	CLR-F,FILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR FANALM	CLR-FANALM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR IMCAT	CLR-IMCAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR IODRV	CLR-IODRV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR IOMEM	CLR-IOMEM	UNIX RTR R21.27 and later
CLR MHD MAEC	CLR-M,MAEC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
CLR PTN	CLR-PTN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR UMEM	CLR-UMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR UTIL	CLR-UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR UTILFLAG	CLR-UTILFLAG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CMPR DISK CORE	CMPR-D,CORE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CMPR MHD	CMPR-MHD-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
CMPR MHD	CMPR-MHD-B	UNIX RTR R21.11 and R21.15
COPY ACTDISK	COPY-ACTDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY ADDR	COPY-ADDR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY BKDISK	COPY-BKDISK-A	UNIX RTR R1.5 and R6.4
COPY BKDISK	COPY-BKDISK-B	UNIX RTR R21.3 and R21.11
COPY BKDISK	COPY-BKDISK-C	UNIX RTR R21.15 and later
COPY BKTAPE	COPY-BKTAPE	UNIX RTR R21.15 and later

Message Name	Message ID	Generic
COPY DIFF SRC	COPY-DIFF,SRC-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
COPY DIFF SRC	COPY-DIFF,SRC-B	UNIX RTR R21.11 and R21.15
COPY FILESYS CFILE	COPY-F,CFILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY FILESYS FILE	COPY-F,FILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY OOSDISK	COPY-OOSDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY PTN ALL	COPY-P,ALL-A	UNIX RTR R1.5, R6.4, R21.3 and R21.11
COPY PTN ALL	COPY-P,ALL-B	UNIX RTR R21.15 and later
COPY PID	COPY-PID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY REG	COPY-REG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY SPDISK	COPY-SPDISK-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
COPY SPDISK	COPY-SPDISK-B	UNIX RTR R21.27 and later
COPY TAPE EMERDMP	COPY-T,EMERDMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE IN	COPY-T,IN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE OUT	COPY-T,OUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE TEST	COPY-T,TEST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE TOP	COPY-T,TOP	UNIX RTR R21.3, R21.11, R21.15 and later
COPY UID	COPY-UID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY UVAR	COPY-UVAR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CU RECOVERY	CU-RECOVERY	UNIX RTR R21.11, R21.15 and later
DEL LOG	DEL-LOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
DGN AUDIT	DGN-AUDIT	UNIX RTR R1.5 only
DGN CU	DGN-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN CU MASC	DGN-CU,MASC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN DCI	DGN-DCI	UNIX RTR R21.3, R21.11, R21.15 and later
DGN DFC	DGN-DFC-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
DGN DFC	DGN-DFC-B	UNIX RTR R21.27 and later
DGN DUIC	DGN-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN HSDC	DGN-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN IOP	DGN-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN MHD	DGN-MHD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN MT	DGN-MT	UNIX RTR R21.3, R21.11, R21.15 and later
DGN MTC	DGN-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN MTTYC	DGN-MTTYC-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
DGN MTTYC	DGN-MTTYC-B	UNIX RTR R21.27 and later
DGN SCSDC	DGN-SDSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN SDLC	DGN-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN TTYC	DGN-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP ADDR	DUMP-ADDR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP BKTAPE	DUMP-BKTAPE	UNIX RTR R21.15 and later
DUMP CACHE	DUMP-CACHE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP FILE ALL	DUMP-F,ALL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
DUMP FILE FORMAT	DUMP-F,FORMAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP FILE PARTL	DUMP-F,PARTL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP KERN	DUMP-KERN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP MHD BLOCK	DUMP-MHD,BLK-A	UNIX RTR R1.5 only
DUMP MHD BLOCK	DUMP-MHD,BLK-B	UNIX RTR R6.4 only
DUMP MHD BLOCK	DUMP-MHD,BLK-C	UNIX RTR R21.3, R21.11, R21.15 and later
DUMP MHD DEFECT	DUMP-MHD,DEF-A	UNIX RTR R1.5 only
DUMP MHD DEFECT	DUMP-MHD,DEF-B	UNIX RTR R6.4 only
DUMP MHD DEFECT	DUMP-MHD,DEF-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.21
DUMP MHD DEFECT	DUMP-MHD,DEF-D	UNIX RTR R21.23 and later
DUMP MHD VTOC	DUMP-MHD,VTO-A	UNIX RTR R1.5 only
DUMP MHD VTOC	DUMP-MHD,VTO-B	UNIX RTR R6.4 only
DUMP MHD VTOC	DUMP-MHD,VTO-C	UNIX RTR R21.3, R21.11, R21.15 and later
DUMP PID	DUMP-PID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP PMEM	DUMP-PMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP REG	DUMP-REG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP UID	DUMP-UID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP UVAR	DUMP-UVAR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX CU	EX-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX DCI	EX-DCI	UNIX RTR R21.3, R21.15 and later
EX DFC	EX-DFC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX DUIC	EX-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX HSDC	EX-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
EX IOP	EX-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX LDPARM	EX LDPARM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX LOOP	EX-LOOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX MHD	EX-MHD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX MT	EX-MT	UNIX RTR R21.3, R21.11, R21.15 and later
EX MTC	EX-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX MTTYC	EX-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX PAUSE	EX-PAUSE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX SCSDC	EX-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX SDLC	EX-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
EX STEP	EX-STEP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX STOP	EX-STOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX TTYC	EX-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EXC ENVIR PROC	EXC-E,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EXC ENVIR UPROC	EXC-E,UPROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EXC OFLBOOT	EXC-OFLBOOT-A	UNIX RTR R21.3 and R21.11
EXC OFLBOOT	EXC-OFLBOOT-B	UNIX RTR R21.15 and later
IN FILE APND	IN-F,APND	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN FILE DEL	IN-F,DEL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN FILE REPL	IN-F,REPL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN FILESYS DIR	IN-FI,DIR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
IN REMOTE	IN-REM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE ERROR	IN-REM,ERROR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE INITIALIZED	IN-REM,INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE STARTED	IN-REM,START	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE STOPPED	IN-REM,STOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN XFER	IN-XFER	UNIX RTR R21.11, R21.15 and later
INH AUD	INH-AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH CONFLOG	INH-CONFLOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH DMQ	INH-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH EAIINT	INH-EAIINT	UNIX RTR R21.3, R21.11, R21.15 and later
INH ERRCHK	INH-ERRCHK-A	UNIX RTR R1.5 only
INH ERRCHK	INH-ERRCHK-B	UNIX RTR R6.4 only
INH ERRCHK	INH-ERRCHK-C	UNIX RTR R21.3, R21.11, R21.15 and later
INH ERRINT	INH-ERRINT-A	UNIX RTR R1.5 only
INH ERRINT	INH-ERRINT-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH ERRSRC	INH-ERRSRC-A	UNIX RTR R1.5 only
INH ERRSRC	INH-ERRSRC-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH FILESYS UMOUNT	INH-F,UMOUNT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH HDWCHK	INH-HDWCHK-A	UNIX RTR R1.5 only
INH HDWCHK	INH-HDWCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH REX	INH-REX	UNIX RTR R21.3, R21.11, R21.15 and later
INH SCSD	INH-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
INH SFTCHK	INH-SFTCHK-A	UNIX RTR R1.5 only
INH SFTCHK	INH-SFTCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH UMEM	INH-UMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH UTIL	INH-UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH UTILFLAG	INH-UTILFLAG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INIT MHD	INIT-MHD-A	UNIX RTR R1.5 only
INIT MHD	INIT-MHD-B	UNIX RTR R6.4 only
INIT MHD	INIT-MHD-C	UNIX RTR R21.3, R21.11, R21.15 and later
INIT ULARP	INIT-ULARP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INIT UMEM	INIT-UMEM-A	UNIX RTR R1.5 only
INIT UMEM	INIT-UMEM-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
LOAD ADDR	LOAD-ADDR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
LOAD DFC PUMP	LOAD-DFC,PUMP-A	UNIX RTR R6.4 only
LOAD DFC PUMP	LOAD-DFC,PUMP-B	UNIX RTR R21.3 and R21.11
LOAD DFC PUMP	LOAD-DFC,PUMP-C	UNIX RTR R21.15 and later
LOAD DFC RAM	LOAD-DFC,RAM-A	UNIX RTR R6.4 only
LOAD DFC RAM	LOAD-DFC,RAM-B	UNIX RTR R21.3, R21.11, R21.15, and later
LOAD MHD	LOAD-MHD-A	UNIX RTR R1.5 and R6.4
LOAD MHD	LOAD-MHD-B	UNIX RTR R21.3 and R21.11
LOAD MHD	LOAD-MHD-C	UNIX RTR R21.15 and later
LOAD MHD DEFECT	LOAD-MHD,DEF-A	UNIX RTR R1.5 only
LOAD MHD DEFECT	LOAD-MHD,DEF-B	UNIX RTR R6.4 only
LOAD MHD DEFECT	LOAD-MHD,DEF-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.21
LOAD MHD DEFECT	LOAD-MHD,DEF-D	UNIX RTR R21.23 only
LOAD MHD DEFECT	LOAD-MHD,DEF-E	UNIX RTR R21.25 and later
LOAD MHD FIRMWARE	LOAD-MHD,FIRM-A	UNIX RTR R6.4 only
LOAD MHD FIRMWARE	LOAD-MHD,FIRM-B	UNIX RTR R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
LOAD PMEM	LOAD-PMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
LOAD REG	LOAD-REG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
LOAD UVAR	LOAD-UVAR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ABD	OP-ABD	UNIX RTR R21.27 and later
OP ACT	OP-ACT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP AUD	OP-AUD-A	UNIX RTR R1.5 only
OP AUD	OP-AUD-B	UNIX RTR R6.4 only
OP AUD	OP-AUD-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP AUDERR	OP-AUDERR-A	UNIX RTR R1.5 only
OP AUDERR	OP-AUDERR-B	UNIX RTR R6.4 only
OP AUDERR	OP-AUDERR-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP CFGSTAT	OP-CFGSTAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP CLK	OP-CLK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP CONTROLLER INFO	OP-CONTROLLER,INFO	UNIX RTR R21.37 and later
OP DEVICE INFO	OP-DEVICE,INFO	UNIX RTR R21.37 and later
OP DFC INFO	OP-DFC,INFO-A	UNIX RTR R1.5 only
OP DFC INFO	OP-DFC,INFO-B	UNIX RTR R6.4 only
OP DFC INFO	OP-DFC,INFO-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.25
OP DFC INFO	OP-DFC-INFO-D	UNIX RTR R21.27 and later
OP DFCELOG	OP-DFCELOG-A	UNIX RTR R1.5 only
OP DFCELOG	OP-DFCELOG-B	UNIX RTR R6.4 only
OP DFCELOG	OP-DFCELOG-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP DMQ	OP-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP EMERSTAT	OP-EMERSTAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
OP ERRCHK	OP-ERRCHK-A	UNIX RTR R1.5 and R6.4
OP ERRCHK	OP-ERRCHK-B	UNIX RTR R21.3, R21.11, R21.15 and later
OP FNAME	OP-FNAME-A	UNIX RTR R1.5 and R6.4
OP FNAME	OP-FNAME-B	UNIX RTR R21.3, R21.11, R21.15 and later
OP GEN READLOG	OP-G,READLOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP GROW	OP-GROW	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP INIT	OP-INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP IODRV	OP-IODRV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP IOP INFO	OP-IOP,INFO	UNIX RTR R21.27 and later
OP LOG	OP-LOG-A	UNIX RTR R1.5 and R6.4
OP LOG	OP-LOG-B	UNIX RTR R21.3, R21.,11, R21.15 and later
OP MEMERRS	OP-MEMERRS-A	UNIX RTR R1.5 only
OP MEMERRS	OP-MEMERRS-B	UNIX RTR R6.4 only
OP MEMERRS	OP-MEMERRS-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP MHD INFO	OP-MHD,INFO-A	UNIX RTR R1.5 only
OP MHD INFO	OP-MHD,INFO-B	UNIX RTR R6.4 only
OP MHD INFO	OP-MHD,INFO-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.25
OP MHD INFO	OP-MHD,INFO-D	UNIX RTR R21.27 and later
OP MT INFO	OP-MT,INFO	UNIX RTR R21.3, R21.11, R21.15 and later
OP OFL	OP-OFL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP OMDB	OP-OMDB-A	UNIX RTR R1.5, R6.4 and R21.3
OP OMDB	OP-OMDB-B	UNIX RTR R21.11, R21.15 and later

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Message Name	Message ID	Generic
OP OOS	OP-OOS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP PMCR ERROR	OP-PMCR-A	UNIX RTR R1.5, R6.4 and R21.3
OP PMCR ERROR	OP-PMCR-B	UNIX RTR R21.11, R21.15 and later
OP REXINH	OP-REXINH-A	UNIX RTR R1.5 and R6.4
OP REXINH	OP-REXINH-B	UNIX RTR R21.3, R21.11, R21.15 and later
OP SCSD	OP-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS DISKUSE	OP-ST,DISKUSE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS FILESYS	OP-ST,FILESYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS FREEDISK	OP-ST,FRDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP TATUS LISTDIR	OP-ST,LSTDIR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS PORTS	OP-ST,PORTS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS PROCESS	OP-ST,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS SUM	OP-ST,SUM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STBY	OP-STBY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ULARP COMMAND	OP-ULARP,COM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ULARP EXECSEQ	OP-ULARP,EXEC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ULARP PROCESS	OP-ULARP,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP UMEM	OP-UMEM-A	UNIX RTR R1.5 only
OP UMEM	OP-UMEM-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
OP UNAV	OP-UNAV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP UNEQIP	OP-UNEQIP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
OP UTIL	OP-UTIL-A	UNIX RTR R1.5 only
OP UTIL	OP-UTIL-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
OP VERSION	OP-VERSION	UNIX RTR R21.11, R21.15 and later
ORD SCSD	ORD-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
PRM 0	PRM-0	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTECD VFY	RCV-DMTECD,VFY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTSG VFY	RCV-DMTSG,VFY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU	RCV-MENU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCVRY ALARM	RCVRY-ALARM	UNIX RTR R21.11, R21.15 and later
RCVRY CU	RCVRY-CU	UNIX RTR R1.5 only
RCVRY DUI	RCVRY-DUI	UNIX RTR R1.5 only
RCVRY DUIC	RCVRY-DUIC	UNIX RTR R1.5 only
RCVRY HSD	RCVRY-HSD	UNIX RTR R1.5 only
RCVRY HSDC	RCVRY-HSDC	UNIX RTR R1.5 only
RCVRY IOP	RCVRY-IOP	UNIX RTR R1.5 only
RCVRY MT	RCVRY-MT	UNIX RTR R1.5 only
RCVRY MTC	RCVRY-MTC	UNIX RTR R1.5 only
RCVRY MTTY	RCVRY-MTTY	UNIX RTR R1.5 only
RCVRY MTTYC	RCVRY-MTTYC	UNIX RTR R1.5 only
RCVRY ROP	RCVRY-ROP	UNIX RTR R1.5 only
RCVRY SCC	RCVRY-SCC	UNIX RTR R1.5 only
RCVRY SCSDC	RCVRY-SCSDC	UNIX RTR R1.5 only
RCVRY SDL	RCVRY-SDL	UNIX RTR R1.5 only
RCVRY SDLC	RCVRY-SDLC	UNIX RTR R1.5 only
RCVRY TTY	RCVRY-TTY	UNIX RTR R1.5 only
RCVRY TTYC	RCVRY-TTYC	UNIX RTR R1.5 only
REPT ADP	REPT-ADP-A	UNIX RTR R1.5 only
REPT ADP	REPT-ADP-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT ADP AUTORST	REPT-ADP,AUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT ADP INHIBIT ACTIVE	REPT-ADP,INHIBIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ADP INTERFACE ERROR	REPT-ADP,INTER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ADPAB	REPT-ADPAB-A	UNIX RTR R1.5 only
REPT ADPAB	REPT-ADPAB-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT ANALY TLP	REPT-ANALY,TLP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT AUDSTAT	REPT-AUDSTAT-A	UNIX RTR R1.5 only
REPT AUDSTAT	REPT-AUDSTAT-B	UNIX RTR R6.4 only
REPT AUDSTAT	REPT-AUDSTAT-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT AUTORST FAILURE	REPT-AUTORST-A	UNIX RTR R1.5 only
REPT AUTORST FAILURE	REPT-AUTORST-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT BAD ALIGN	REPT-BAD,ALIGN	UNIX RTR R1.5 only
REPT BAD OST	REPT-BAD,OST	UNIX RTR R1.5 only
REPT BAD PRTY DIO	REPT-BAD,PRTY-DIO	UNIX RTR R1.5 only
REPT BAD PRTY DMA	REPT-BAD,PRTY-DMA	UNIX RTR R1.5 only
REPT BDG	REPT-BDG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT BWMINT	REPT-BWMINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CCIO COMMAND	REPT-CCIO,CMD	UNIX RTR R1.5 only
REPT CCIO DATA PARITY	REPT-CCIO,DATA	UNIX RTR R1.5 only
REPT CD CIA	REPT-CD,CIA0	UNIX RTR R21.3, R21.11, R21.15 and later
REPT C/D DLGGETTY	REPT-CD,DLGGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT C/D ERROR	REPT-CD,ERROR-A	UNIX RTR R1.5 only
REPT C/D ERROR	REPT-CD,ERROR-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT C/D GETTY	REPT-CD,GETTY-A	UNIX RTR R1.5 only
REPT C/D GETTY	REPT-CD,GETTY-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT C/D POKER	REPT-CD,POKER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT C/D STARTER	REPT-CD,STARTER-A	UNIX RTR R1.5 only
REPT C/D STARTER	REPT-CD,STARTER-B	UNIX RTR R6.4, R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT C/D STARTER	REPT-CD,STARTER-C	UNIX RTR R21.3 only
REPT CFT LIB	REPT-CFT,LIB-A	UNIX RTR R1.5 and R6.4
REPT CFT LIB	REPT-CFT,LIB-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT CFTSHL	REPT-CFTSHL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CONFIG FAULT	REPT-CONFIG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CONFIG RECONFIGURATION	REPT-CONFIG,REC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
REPT CSOP	REPT-CSOP-A	UNIX RTR R1.5 only
REPT CSOP	REPT-CSOP-B	UNIX RTR R6.4 only
REPT CSOP	REPT-CSOP-C	UNIX RTR R21.3 only
REPT CSOP	REPT-CSOP-D	UNIX RTR R21.11, R21.15 and later
REPT CSOP FORMATTING	REPT-CSOP,FORM-A	UNIX RTR R1.5 and R6.4
REPT CSOP FORMATTING	REPT-CSOP,FORM-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT CSOP IN	REPT-CSOP,IN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CSOP PRIM	REPT-CSOP,PRIM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CU	REPT-CU-A	UNIX RTR R1.5, R6.4, R21.3, R21.11 and R21.15
REPT CU	REPT-CU-B	UNIX RTR R21.17 and later
REPT CURSTRMV FAULT	REPT-CURSTRMV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DCI	REPT-DCI	UNIX RTR R21.3, R21.11, R21.15 thru R21.30
REPT DCI	REPT-DCI	UNIX RTR R21.31 and later
REPT DCIDIP	REPT-DCIDIP	UNIX RTR R21.17 and later
REPT DEGROWTH	REPT-DEGROWTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DFC	REPT-DFC-A	UNIX RTR R1.5 only
REPT DFC	REPT-DFC-B	UNIX RTR R6.4 only.
REPT DFC	REPT-DFC-C	UNIX RTR R21.3 only
REPT DFC	REPT-DFC-D	UNIX RTR R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT DFC PUMP	REPT-DFC,PUMP	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT DFCE	REPT-DFCE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DFCI	REPT-DFCI-A	UNIX RTR R1.5 only
REPT DFCI	REPT-DFCI-B	UNIX RTR R6.4 only
REPT DFCI	REPT-DFCI-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT DFRMVRST ERROR	REPT-DFRMVRST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DGN	REPT-DGN-A	UNIX RTR R1.5 and R6.4
REPT DGN	REPT-DGN-B	UNIX RTR R21.3 only
REPT DGN	REPT-DGN-C	UNIX RTR R21.11, R21.15 and later
REPT DGN AUDIT	REPT-DGN,AUDIT	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT DIAMON	REPT-DIAMON	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DIO ACK	REPT-DIO,ACK	UNIX RTR R1.5 only
REPT DIO READY	REPT-DIO,READY	UNIX RTR R1.5 only
REPT DIOP	REPT-DIOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DKDIP	REPT-DKDIP-A	UNIX RTR R1.5 only
REPT DKDIP	REPT-DKDIP-B	UNIX RTR R6.4 only
REPT DKDIP	REPT-DKDIP-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT DKDRV	REPT-DKDRV-A	UNIX RTR R1.5 only
REPT DKDRV	REPT-DKDRV-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT DLGGETTY	REPT-DLGGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DLGSHL	REPT-DLGSHL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DMA ADDR	REPT-DMA,ADDR	UNIX RTR R1.5 only
REPT DMA ASW	REPT-DMA,ASW	UNIX RTR R1.5 only
REPT DMA CHNL	REPT-DMA,CHNL	UNIX RTR R1.5 only

Message Name	Message ID	Generic
REPT DMA RAM	REPT-DMA,RAM	UNIX RTR R1.5 only
REPT DMA ROM	REPT-DMA,ROM	UNIX RTR R1.5 only
REPT DMQ	REPT-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DUI	REPT-DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DUIC	REPT-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT EAI	REPT-EAI-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
REPT EAI	REPT-EAI-B	UNIX RTR R21.27 and later
REPT ECDMAN	REPT-ECDMAN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT EMERGENCY DUMP	REPT-EMER,DUMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ERRPORT	REPT-ERRPORT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ERSLOT	REPT-ERSLOT-A	UNIX RTR R6.4 only
REPT ERSLOT	REPT-ERSLOT-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT FAN	REPT-FAN-A	UNIX RTR R1.5 and R6.4
REPT FAN	REPT-FAN-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT FAN MULTI	REPT-FF,MULTI-A	UNIX RTR R1.5, R21.3, R21.11, R21.15 and later
REPT FAN MULTI	REPT-FF,MULTI-B	UNIX RTR R6.4 only
REPT FAN SINGLE	REPT-FF,SING-A	UNIX RTR R1.5, R21.3, R21.11, R21.15 and later
REPT FAN SINGLE	REPT-FF,SING-B	UNIX RTR R6.4 only
REPT FIELD MAINT	REPT-FIELD,MAINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FILESYS	REPT-FILESYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR	REPT-FMGR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR DSW	REPT-FMGR,DSW	UNIX RTR R21.3, R21.11, R21.15 and later
REPT FMGR ECD	REPT-FMGR,ECD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT FMGR FILSYS	REPT-FMGR,FILSYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR MOUNT	REPT-FMGR,MOUNT	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR NONTASK FAULT	REPT-FMGR,NF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR TABLE OVERLOAD	REPT-FMGR,OVLD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR PROCESS	REPT-FMGR,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR TASK STATUS	REPT-FMGR,TS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR UMNTFLD	REPT-FMGR-UMNTFLD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR UNMNT	REPT-FMGR,UNMNT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR WNDW	REPT-FMGR,WNDW	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FUSE ALARM	REPT-FUSE,ALM	UNIX RTR R21.3, R21.11, R21.15 and later
REPT GRASP	REPT-GRASP-A	UNIX RTR R1.5 only
REPT GRASP	REPT-GRASP-B	UNIX RTR R6.4 only
REPT GRASP	REPT-GRASP-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT GROWTH	REPT-GROWTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT HSD	REPT-HSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT HSDC	REPT-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ILL INSTRCT	REPT-ILL,INSTRCT	UNIX RTR R1.5 only
REPT ILL OPRND	REPT-ILL,OPRND	UNIX RTR R1.5 only
REPT ILL STACK	REPT-ILL,STACK	UNIX RTR R1.5 only
REPT INHADM	REPT-INHADM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT INHIBIT	REPT-INHIBIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT INIT	REPT-INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT INVLD ER INT	REPT-INVLD,ER-INT	UNIX RTR R1.5 only
REPT INVLD ER NUM	REPT-INVLD,ER-NUM	UNIX RTR R1.5 only

Message Name	Message ID	Generic
REPT INVLD MNTC	REPT-INVLD,MNTC	UNIX RTR R1.5 only
REPT IO CHNL ERR	REPT-IO,CHNL-ERR	UNIX RTR R1.5 only
REPT IODRV ATTRIBUTE	REPT-IODRV,AT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IODRV	REPT-IODRV,ERR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IODRV	REPT-IODRV,ERROR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IODRV	REPT-IODRV,FAULT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IOP	REPT-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IORMVRST ERROR	REPT-IORMVRST	UNIX RTR R1.5, R6.4, R21.3, and later
REPT KAUDPRC	REPT-KAUDPRC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT KLLA	REPT-KLLA	UNIX RTR R1.5 only
REPT LIBC ARGU	REPT-LIBC,ARGU	UNIX RTR R21.3, R21.11, R21.15 and later
REPT LIBC ER STRT	REPT-LIBC,ER-STRT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT LIBC EX	REPT-LIBC,EX	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT LIBC FAULT	REPT-LIBC,FL-A	UNIX RTR R1.5 and R6.4
REPT LIBC FAULT	REPT-LIBC,FL-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT LIBC FORK	REPT-LIBC,FO	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT LIBC PROGRAM	REPT-LIBC,PROGRAM	UNIX RTR R21.3, R21.11, R21.15 and later
REPT LIBC SAVE	REPT-LIBC,SAVE	UNIX RTR R21.3, R21.11, R21.15 and later

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REPT LIBC START	REPT-LIBC,START	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MAINTENANCE REQUESTS	REPT-MAINT,REQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MAPFILE	REPT-MAPFILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MAXINTVL	REPT-MAXINTVL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MBD	REPT-MBD	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MEMORY PRTY	REPT-MEMORY,PRTY	UNIX RTR R1.5 only
REPT MHD	REPT-MHD-A	UNIX RTR R1.5 only
REPT MHD	REPT-MHD-B	UNIX RTR R6.4 only
REPT MHD	REPT-MHD-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT MIRA	REPT-MIRA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MKDSK	REPT-MKDSK	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR001	REPT-MMGR001	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR002	REPT-MMGR002	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR003	REPT-MMGR003-A	UNIX RTR R1.5 only
REPT MMGR003	REPT-MMGR003-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR004	REPT-MMGR004	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR005	REPT-MMGR005	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MOP	REPT-MOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MT	REPT-MT-A	UNIX RTR R1.5 and R6.4
REPT MT	REPT-MT-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT MTC	REPT-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT MTTY	REPT-MTTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MTTYC	REPT-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MY STORE A	REPT-MY,STORE-A	UNIX RTR R1.5 only
REPT MY STORE B	REPT-MY,STORE-B	UNIX RTR R1.5 only
REPT MY STORE C	REPT-MY,STORE-C	UNIX RTR R1.5 and R6.4
REPT NONCORR PRTY	REPT-NONCORR,PRTY	UNIX RTR R1.5 only
REPT OFFLINE	REPT-OFFLINE	UNIX RTR R21.3, R21.11, R21.15 thru R21.33
REPT OFFLINE	REPT-OFFLINE	UNIX RTR R21.35 and later
REPT OFLBOOT	REPT-OFLBOOT	UNIX RTR R21.3, R21.11, R21.15 and later
REPT OLBCONFIG FAULT	REPT-OLBCONFIG	UNIX RTR R21.3, R21.11, R21.15 and later
REPT OUT OF RANGE MEM	REPT-OORMR	UNIX RTR R1.5 only
REPT OUT OF RANGE MEM OTHER	REPT-OORMR,OTHR	UNIX RTR R1.5 only
REPT OP PMCR	REPT-OP,PMCR-A	UNIX RTR R1.5 and R6.4
REPT OP PMCR	REPT-OP,PMCR-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT OP PMCR ERROR	REPT-OP,PMER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT OTHER STORE HARDWARE	REPT-OTHR,SHE	UNIX RTR R1.5 and R6.4
REPT OTHER STORE READ	REPT-OTHR,SRDPE	UNIX RTR R1.5 and R6.4
REPT OTHER STORE REFRESH	REPT-OTHR,SRFPE	UNIX RTR R1.5 and R6.4
REPT OTHER STORE TIME OUT	REPT-OTHR,STOE	UNIX RTR R1.5 only
REPT OUTPUT	REPT-OUTPUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PASSWORD	REPT-PASSWORD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PCPAUD	REPT-PCPAUD-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
REPT PCPAUD	REPT-PCPAUD-B	UNIX RTR R21.27 only
REPT PCPAUD	REPT-PCPAUD-C	UNIX RTR R21.29 and later
REPT PCPMD FAULT	REPT-PCPMD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PHASE	REPT-PHASE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PINV	REPT-PINV	UNIX RTR R1.5 only

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Message Name	Message ID	Generic
REPT PLDMON ERROR	REPT-PLDMON,ERR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PMDBCOPY	REPT-PMDBCOPY-A	UNIX RTR R1.5, R6.4, R21.11, R21.15 thru R21.17
REPT PMDBCOPY	REPT-PMDBCOPY-B	UNIX RTR R21.3, R21.19 and later
REPT PMGR ERROR	REPT-PMGR,ERR-A	UNIX RTR R1.5 only
REPT PMGR ERROR	REPT-PMGR,ERR-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT PMSLOT	REPT-PMSLOT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT POWER	REPT-POWER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PREPHASE	REPT-PREPHASE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PRIV INSTR VIOL	REPT-PRIV,INSTRCT	UNIX RTR R1.5 only
REPT PROTECTION VIOLATION	REPT-PROTECT,VLTN	UNIX RTR R1.5 only
REPT PARITY DIVERT	REPT-PRTY-DVRT	UNIX RTR R1.5 only
REPT PSM	REPT-PSM-A	UNIX RTR R1.5 and R6.4
REPT PSM	REPT-PSM-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT PWRFLTC	REPT-PWRFLTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY CU	REPT-RCVRY,CU	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY DUI	REPT-RCVRY,DUI	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY DUIC	REPT-RCVRY,DUIC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY HSD	REPT-RCVRY,HSD	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY HSDC	REPT-RCVRY,HSDC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY IOP	REPT-RCVRY,IOP	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY MT	REPT-RCVRY,MT	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY MTC	REPT-RCVRY,MTC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY MTTY	REPT-RCVRY,MTTY	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT RCVRY MTTYC	REPT-RCVRY,MTTYC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY ROP	REPT-RCVRY,ROP	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SCC	REPT-RCVRY,SCC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SCSDC	REPT-RCVRY,SCSDC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SDL	REPT-RCVRY,SDL	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SDLC	REPT-RCVRY,SDLC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY TTY	REPT-RCVRY,TTY	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY TTYC	REPT-RCVRY,TTYC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT REX UNABLE	REPT-REX	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT REX SUMMARY	REPT-REX,SUM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RMF	REPT-RMF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RMTGETTY	REPT-RMTGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ROP	REPT-ROP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RTS	REPT-RTS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SCC	REPT-SCC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
REPT SCSD	REPT-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SCSDA	REPT-SCSDA-A	UNIX RTR R1.5 and R6.4
REPT SCSDA	REPT-SCSDA-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT SCSDC	REPT-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT SDL	REPT-SDL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SDLC	REPT-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SDLRTC	REPT-SDLRTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SDLRTN	REPT-SDLRTN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SHLGETTY	REPT-SHLGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SIM	REPT-SIM	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT SIMCHK	REPT-SIMCHK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SIND	REPT-SIND	UNIX RTR R1.5 only
REPT SINV	REPT-SINV	UNIX RTR R1.5 only
REPT SIOF ERROR	REPT-SIOF,ERROR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SOP	REPT-SOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SPL SYNTAX ERROR	REPT-SPL,SYN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SYSTEM	REPT-SYSTEM	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT TIME	REPT-TIME	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT TLP ERROR	REPT-TLP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT 3/6 MAIN CHAN ADDR	REPT-TS,MCASE	UNIX RTR R1.5 only
REPT 3/6 MAIN CHAN IO RESP	REPT-TS,MCIORE	UNIX RTR R1.5 only
REPT TTY	REPT-TTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT TTYC	REPT-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ULARP	REPT-ULARP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT UNIX INIT	REPT-UNIX,INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT VIRTUAL ADDR	REPT-VIRTUAL,ADDR	UNIX RTR R1.5 only

Message Name	Message ID	Generic
RFT FDUMP	RFT-FDUMP	UNIX RTR R1.5 only
RMV CU	RMV-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV DCI	RMV-DCI	UNIX RTR R21.3, R21.15 and later
RMV DFC	RMV-DFC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV DUI	RMV-DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV DUIC	RMV-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV HSD	RMV-HSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV HSDC	RMV-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV IOP	RMV-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV MHD	RMV-MHD-A	UNIX RTR R6.4, R21.3, R21.17 and later
RMV MHD	RMV-MHD-B	UNIX RTR R21.11 and R21.15
RMV MT	RMV-MT-A	UNIX RTR R1.5 and R6.4
RMV MT	RMV-MT-B	UNIX RTR R21.3, R21.11, R21.15 and later
RMV MTC	RMV-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV MTTY	RMV-MTTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV MTTYC	RMV-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV ROP	RMV-ROP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SBUS	RMV-SBUS-A	UNIX RTR R6.4 only
RMV SBUS	RMV-SBUS-B	UNIX RTR R21.3, R1.11, R21.15 and later
RMV SCC	RMV-SCC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SCSDC	RMV-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SDL	RMV-SDL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SDLC	RMV-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
RMV TTY	RMV-TTY	UNIX RTR R1.5, R6.4, R21.3, and later
RMV TTYC	RMV-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST CU	RST-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST DCI	RST-DCI	UNIX RTR R21.3, R21.15 and later
RST DFC	RST-DFC-A	UNIX RTR R1.5 and R6.4
RST DFC	RST-DFC-B	UNIX RTR R21.3, R21.11, R21.15 and later
RST DUI	RST-DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST DUIC	RST-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST HSD	RST-HSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST HSDC	RST-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
RST IOP	RST-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
RST MHD	RST-MHD-A	UNIX RTR R1.5 and R6.4
RST MHD	RST-MHD-B	UNIX RTR R21.3, R21.11, R21.15 and later
RST MT	RST-MT-A	UNIX RTR R1.5 and R6.4
RST MT	RST-MT-B	UNIX RTR R21.3, R21.11, R21.15 and later
RST MTC	RST-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST MTTY	RST-MTTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST MTTYC	RST-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST ROP	RST-ROP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST SBUS	RST-SBUS-A	UNIX RTR R6.4 only
RST SBUS	RST-SBUS-B	UNIX RTR R21.3, R21.11, R21.15, and later
RST SCC	RST-SCC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST SCSDC	RST-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST SDL	RST-SDL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
RST SDLC	RST-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST TTY	RST-TTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST TTYC	RST-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
SET CLK	SET-CLK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
SET IODRV	SET-IODRV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
START OF	START-OF	UNIX RTR R21.11, R21.15 and later
STOP AUD	STOP-AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
STOP BKDISK	STOP-BKDISK-A	UNIX RTR R1.5, R6.4, R21.3 and R21.11
STOP BKDISK	STOP-BKDISK-B	UNIX RTR R21.15 and later
STOP DCI	STOP-DCI	UNIX RTR R21.3, R21.11, R21.15 and later
STOP DMQ	STOP-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP EXC ANY	STOP-EXC,ANY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP EXC USER	STOP-EXC,USER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP GEN	STOP-GEN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP OFLBOOT	STOP-OFLBOOT	UNIX RTR R21.3, R21.11, R21.15 and later
STP DMQ	STP-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STP GEN	STP-GEN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
SW CU	SW-CU-A	UNIX RTR R1.5 only
SW CU	SW-CU-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
SW OFLBOOT	SW-OFLBOOT	UNIX RTR R21.3, R21.11, R21.15 and later
SW PORTSW	SW-PORTSW	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TST SPL	TST-SPL	UNIX RTR R1.5 only
UPD APPLY	UPD-APPLY	UNIX RTR R1.5, R6.4 and R21.3
UPD AUTOCHK REPORT	UPD-AUTOCHK	UNIX RTR R21.11, R21.15 and later
UPD AUTOMATION	UPD-AUTOMATION	UNIX RTR R21.11, R21.15 and later
UPD BKOUT	UPD-BKOUT	UNIX RTR R1.5, R6.4 and R21.3
UPD BLDBOOT	UPD-BLDBOOT	UNIX RTR R1.5, R6.4, R21.3 R21.11, R21.15 and later
UPD CLR	UPD-CLR	UNIX RTR R1.5, R6.4 and R21.3
UPD COMMAND	UPD-COMMAND	UNIX RTR R21.11, R21.15 and later
UPD CSCANS	UPD-CSCANS	UNIX RTR R21.11, R21.15 and later
UPD CSCANS REPORT	UPD-CSCANS-REPT	UNIX RTR R21.11, R21.11, R21.15 and later
UPD DFC FLASH	UPD-DFC,FLASH	UNIX RTR R21.11, R21.15 and later
UPD DISPLAY	UPD-DISPLAY-A	UNIX RTR R1.5, R6.4 and R21.3
UPD DISPLAY	UPD-DISPLAY-B	UNIX RTR R21.11, R21.15 and later
UPD FLASH	UPD-FLASH	UNIX RTR R21.11, R21.15 and later
UPD FTRC	UPD-FTRC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN APPLPROC	UPD-G,APPLPROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN BACKOUT	UPD-G,BKOUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN COMMIT	UPD-G,COMMIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN CONTINUE	UPD-G,CONT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN ENTER	UPD-G,ENTER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN PROCEED	UPD-G,PROCD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
UPD GEN RESTORE	UPD-G,RESTR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
UPD ISG	UPD-ISG-A	UNIX RTR R1.5 and R6.4
UPD ISG	UPD-ISG-B	UNIX RTR R21.3, R21.11, R21.15 and later
UPD OMDB	UPD-OMDB-A	UNIX RTR R1.5, R6.4 and R21.3
UPD OMDB	UPD-OMDB-B	UNIX RTR R21.11, R21.15 and later
UPD OMIT	UPD-OMIT	UNIX RTR R1.5, R6.4 and R21.3
UPD PERM	UPD-PERM	UNIX RTR R1.5, R6.4 and R21.3
UPD PURGE	UPD-PURGE	UNIX RTR R1.5, R6.4 and R21.3
UPD RECLAIM	UPD-RECLAIM	UNIX RTR R1.5, R6.4 and R21.3
UPD REPT	UPD-REPT-A	UNIX RTR R1.5, R6.4 and R21.3
UPD REPT	UPD-REPT-B	UNIX RTR R21.11, R21.15 and later
UPD RESET	UPD-RESET	UNIX RTR R1.5, R6.4 and R21.3
UPD UPNM	UPD-UPNM	UNIX RTR R1.5, R6.4 and R21.3
UPD VERSION	UPD-VERSION	UNIX RTR R21.11, R21.15 and later
UPD VFY	UPD-VFY	UNIX RTR R1.5, R6.4 and R21.3
UPD VFYCON	UPD-VFYCON	UNIX RTR R21.11, R21.15 and later
VFY FILE	VFY-FILE-A	UNIX RTR R1.5 only
VFY FILE	VFY-FILE-B	UNIX RTR R6.4 only
VFY FILE	VFY-FILE-C	UNIX RTR R21.3, R21.11, R21.15 and later
VFY MHD	VFY-MHD-A	UNIX RTR R1.5 only
VFY MHD	VFY-MHD-B	UNIX RTR R6.4 only
VFY MHD	VFY-MHD-C	UNIX RTR R21.3, R21.11, R21.15 and later
VFY PAUTH	VFY-PAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
VFY PCGRP	VFY-PCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
VFY PROFL	VFY-PROFL	UNIX RTR R21.3, R21.11, R21.15 and later
VFY TAPE	VFY-TAPE-A	UNIX RTR R1.5, R6.4, R21.3 and R21.11
VFY TAPE	VFY-TAPE-B	UNIX RTR R21.15 and later

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Message Name	Message ID	Generic
VFY TAUTH	VFY-TAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
VFY TCGRP	VFY-TCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
WHEN COND	WHEN-COND	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
WHEN PID	WHEN-PID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
WHEN UID	WHEN-UID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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ID . . . . . DEL-LOG
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAIPR,UTIL

1. FORMAT

This message has six formats.

[1] `DEL LOG` *a* *b* `DELETED CORRUPT SEGMENT AT` *c*
d

[2] `DEL LOG` *a* `CANNOT OPEN LOGFILE`

[3] `DEL LOG FILE` *a* `DELETION COMPLETE` *e* `DELETED`

[4] `DEL LOG CANNOT OPEN WORKFILE`

[5] `DEL LOG` *a* `CANNOT OPEN TEMPORARY FILE`

[6] `DEL LOG` *a* `PORT CONNECTION FAILURE`

2. REASON FOR OUTPUT

Formats 1, 2, 4, 5, and 6 are to report that an error occurred when executing the `DEL:LOG` input message.

3. VARIABLE FIELD DEFINITIONS

a = Name of logfile.

b = Pathname of the file in which corruption was discovered.

c = Position in file where corruption was discovered, expressed in characters.

d = Text containing the corrupted information which has been deleted.

e = Number of messages deleted.

4. ACTION TO BE TAKEN

If Format 1 is printed, the contents of the corrupt log file must be SAVED on paper for later reference.

If Format 2 is printed, check to see if the log file exists under the pathname specified in the device record.

If Format 5 is printed, check the `/tmp` file system to see if all the space is used up.

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5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Formats 1, 2, 5, and 6 have an OMDB key of 277.
Format 3 has an OMDB key of 14.
Format 4 has an OMDB key of 13.

Input Messages
`DEL:LOG`
`OP:LOG`

ID . . . . . DGN-AUDIT
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1]
```
DGN AUDIT a
R = b
DRIVER DATA
D = m
PHASE DATA
T = i A = j S = k I = l
```

[2]
```
DGN AUDIT a
R = b
SYSTEM DATA
D = n
PHASE DATA
T = i A = j S = k I = l
```

[3]
```
DGN AUDIT a
R = b
LEXEC DATA
D = o errno = p
PHASE DATA
T = i A = j S = k I = l
```

2. REASON FOR OUTPUT

Each of the formats has a separate purpose.

Format 1 is used to report a peripheral driver error encountered by the peripheral diagnostic programs.

Format 2 is used to report an error encountered by the peripheral diagnostic programs.

Format 3 is used to report a LEXEC function failure encountered by the peripheral diagnostic programs.

3. VARIABLE FIELD DEFINITIONS

a = Diagnostic reporting the error; disk file controller (DFC), and input/output processor (IOP).

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b = Reason for audit, in hexadecimal notation.

- 41 — Open special device file failed. For SMD MHDs with UCB device_id field = 0 (first MHD on DFC, usually MHD 0 or 1): MHD type read from DFC backplane may not agree with MHD UCB equipage field or may not be read correctly by DFC TN65 or UN64 board.
- 42 — SETIO failed.
- 43 — Makeseg failed.
- 44 — Sendpw failed.
- 45 — Read PC pump file failed.
- 46 — Driver operation failed.
- 47 — Open PC pump file failed.
- 48 — Msgenab failure.
- 49 — Msgdisab failure.
- 4A — Open processor control process maintenance driver (PCPMD) failed.
- 4B — Write to PCPMD failed.
- 4C — Excofl timed out.
- 4D — Open ECD manager failed.
- 4E — Function "ugucbn" failed.
- 4F — Peripheral interface controller (PIC) microstore size not in UCB.
- 50 — Receive wait failed.
- 51 — LEXEC function failed.
- 52 — E_host of UCB not initialized.
- 53 — Lseek function failure.
- 54 — Drive size not 5 or 19 tracks.
- 55 — Makeseg failed for disk read / write buffer.
- 56 — Write / read segment too small.
- 57 — Function ugetucb failed.
- 58 — DFC not active.
- 59 — IOP not active.
- 5A — SCSI bus not active.
- 61 — SCSI bus not active.
- 64 — Cannot open data table file or micro program.
- 65 — Cannot share DCB from DIAMON.
- 66 — Error in the data table.
- 67 — Invalid number of parameters from DIAMON.
- 68 — Open spooler failed.
- 6A — Invalid interactive mode command.
- 6C — Open tlpfile failed.
- 6D — Signal: illegal instruction.
- 6E — Signal: bus error.
- 6F — Signal: segment violation.
- 70 — Signal: software termination.
- 71 — Function ugnxtucb failed.
- 72 — Illegal device type for DFC.
- 73 — Function ucbrsrv failed.
- 74 — Function ugsdf failed.

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i = Last test executed, in decimal notation.

j = Data table address, in hexadecimal notation.

k = Data table statement number, in decimal notation.

l = Task routine index, in hexadecimal notation.

m = Peripheral driver error code, in hexadecimal notation. DFC error codes are in Output DFC Appendix A, DFC-APPA.
IOP error codes are in Output IOP Appendix F, IOP-APPF.

n = Error code returned on a failing system call or ECD function call: in decimal notation. See Output System Error Codes Appendix, SYSERR-APP.

o = Error code returned by LEXEC function call, in decimal notation. See Output System Error Codes Appendix, SYSERR-APP.

p = Error code from a PCPMD (the CU maintenance driver) function call, in decimal notation. See Output System Error Codes Appendix, SYSERR-APP.

4. ACTION TO BE TAKEN

Seek technical assistance.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 56.

Output Appendixes
DFC-APPA
IOP-APPF
SYSERR-APP

Input Messages
DGN:CU
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:MHD
DGN:MT
DGN:MTC
DGN:MTTYC
DGN:TTYC
DGN:SCSDC
DGN:SDLC

Output Messages

```
DGN-AUDIT
DGN-CU
DGN-CU,MASC
DGN-DFC
DGN-DUIC
DGN-HSDC
DGN-IOP
DGN-MHD
DGN-MT
DGN-MTC
DGN-MTTYC
DGN-SCSDC
DGN-SDLC
DGN-TTYC
```

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ID . . . . . DGN-CU
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `DGN CU` *a* [*b*] [`COMPLETED`] *d* [(*e*)]
{`MESSAGE`|`MSG`} {`IN PROGRESS`|`COMPLETE`}

[2] `DGN CU` *a* [*b*] `PH` *c d* [(*e*)]
{`MESSAGE IN PROGRESS`|`MSG IP`}

[3] `DGN CU` *a* [*b*] `PH` *c* `STF` (*e*) `MSG IP`
`TEST` `MISMATCH` `ACTUAL` `MASK` `EXPECTED`
f *g* *h* *i* *j*

[4] `DGN CU` *a* [*b*] `ABORTED AT PH` *c* `STMNT` *k d* [(*e*)] `MSG IP`

[5] `DGN CU` *a* [*b*] `TERMINATED AT PH` *c* `STMNT` *k* `AFTER TEST` *l*

[6] `DGN CU` *a* [*b*] `TASK` *m*
{`MESSAGE STARTED`|`QUEUED`|`ABORTED`}

2. REASON FOR OUTPUT

To report the result of executing a `DGN:CU` input message to diagnose the control unit, or one of its subunits.

Format 1 specifies the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request cannot be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a = Member number (0 or 1).

b = Unit type and member number of the subunit under the CU; for example, CC 0, MASC 0, MASC 1, SAT 0, etc.

c = Phase number.

d = The result of the diagnostic.

- ATP — All tests passed.
- CATP — All tests were ATP; some were not executed due to the unavailability of a system resource needed to perform the test.
- NTR — No tests were run.
- STF — Some tests failed.

e = If *d* = CATP or NTR, *e* identifies the reasons tests were skipped by their bit position in a 16-digit hexadecimal number. For example, if *e* = (00000000 00000018), tests were skipped for reasons 3 and 4.

If *d* = STF, *e* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *e* = (7 00000000 00000018), seven tests failed, plus tests were skipped for reasons 3 and 4. The reasons are as follows:

- Bit 0 — Unused.
- Bit 1 — Unit under test is forced on-line.
- Bit 2 — Sanity timers are disabled.
- Bit 3 — Emergency action interface (EAI) forces on CU, disk, sanity timer are active.
- Bit 4 — Peripheral unit controller is out of service.
- Bit 5 — Helper unit not specified or invalid.
- Bit 6 — Helper unit unavailable.
- Bit 7 — Unit under test is forced off-line.
- Bit 8 — EAI initialization parameter buffer data pending; EAI must be cleared.
- Bit 9 — Helper unit not connected to sub-unit under test.
- Bits 10 — 63 - Unused.

f = Test number of the failing test.

g = The bits that were in error. An *1* in a bit position indicates the response from the unit did not match the expected response in that bit.

h = The bits that were actually received from the hardware device.

i = Determines which bits in *h* are included in this test.

j = The value which the test expected.

NOTE: For Format 3, the values for *h*, *i*, and *j* may be set to N/A. This means that this data is not available for the specified device.

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k = Last statement successfully executed before the diagnostic terminated.

l = Current test number when diagnostic terminated.

m = Task number assigned to the request.

4. ACTION TO BE TAKEN

If *d* = CATP, the needed system resource should be made available if possible, so that all tests may be executed. If *d* = STF, the unit should be repaired as quickly as possible. See the *Corrective Maintenance Procedures* manual for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key(s)
Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Message(s)

```
ALW:DMQ
DGN:CU
INH:DMQ
OP:DMQ
RMV:CU
RST:CU
STOP:DMQ
STP:DMQ
```

Output Message(s)

```
ANALY-TLPFILE
DGN-AUDIT
OP-DMQ
REPT-DGN,AUDIT
REPT-DIAMON
RMV-CU
RST-CU
```

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ID . . . . . DGN-CU,MASC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
DGN  CU a MASC b PH c MEMORY FAILURE RESULTS

 FIRST FAULT DATA

 FAILING ARRAY = d AT EQL e
 FAILING ADDRESS = f
 DATA MISMATCH = g
 ACTUAL DATA = h
 EXPECTED DATA = i
 PARITY MISMATCH = j
 ACTUAL PARITY = k
 EXPECTED PARITY = l
 MAS ERROR REG 2 = m
 RAPPED ADDRESS REG = n
 MAS ERROR REG = o
 CC ERROR REG = y

 NUMBER OF FAILING ADDRESSES = p

 FIRST q FAILING ADDRESSES
    r

 MEMORY FAILURE HISTOGRAM

DATA/ADR    DATA FAIL COUNT   ADDRESS FAIL COUNT
 BITS      EXP=1    EXP=0    AS 0      AS 1
     RTN=0    RTN=1
   00         s    t    u    v
   .          s    t    u    v
   .          s    t    u    v
   25         s    t    u    v
   26         s    t
   .          s    t
   .          s    t
   H0         s    t
   .          s    t
   .          s    t
   H3         s    t
   PX         s    t
   PY         s    t
```

PZ	*s*	*t*
PA	*s*	*t*
MULTI	*w*	
LOGIC	*x*	

2. REASON FOR OUTPUT

To provide failure information when memory failures are detected by the main store controller (MASC) diagnostic. The output contains detailed data on the first memory fault detected and histogram style summary data on all the faults in the sample, which is typically the first 100 faults detected. This information can be used to determine the faulty circuit pack and the faulty device on that circuit pack.

3. VARIABLE FIELD DEFINITIONS

a = Control unit (0 or 1).

b = Main store controller (0 or 1).

c = Phase number, in decimal notation.

d = Type of failing memory array.

e = Equipment location (EQL) of the failing memory array, in decimal notation.
EQL equals distance from floor - distance from frame left.

f = Address of the first memory location to fail as a result of a mismatch between the expected memory contents and the actual memory contents or memory location under test when a mystore error became active (see address trapped indicator in *n*, in hexadecimal notation.

g = Data bit mismatch (bits 0-31) first failing memory location, in hexadecimal notation.

h = Actual data in memory, in hexadecimal notation.

i = Expected data (data that was written), in hexadecimal notation.

j = Parity bit mismatches in bits 31-24, and 2 error indicators in bits 23-22.

Bit 31 - H0.
Bit 30 - H1.
Bit 29 - H2.
Bit 28 - H3.
Bit 27 - PX.
Bit 26 - PY.
Bit 25 - PZ.
Bit 24 - PA.

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Bit 23 - Multi-bit error is set when an error either

1) causes an address trap (TRAPPED ADDRESS REG bit 27 set) and an error C or D (bits 28 or 29 set) but the correctable parity failure (bit 0) is not set and the noncorrectable parity failure (bit 1) is set, or
2) causes an address trap (bit 27 set) and error C or D active (bits 28 or 29 set) and the correctable parity failure (bit 0) is set, but more than one data and parity bits are mismatching.

Bit 22 - Logic error is set when an error either

1) does not cause an address trap (TRAPPED ADDRESS REG bit 27 not set) but there are data or parity mismatches, or
2) causes an address trap (bit 27 set) but error C or D not active (bits 28 or 29 set), or
3) causes an address trap (bit 27 set) and error C or D active (bit 28 or 29 not set) and correctable (single) bit error indicated (bit 0 set) but group failure bits (MAS ERROR REG 2 bits 6-0) contain a code not recognized as a single bit error.

k = Actual parity in memory, bits 31-24, same format as *j*.

l = Parity expected for the data written to memory in bits 31-24, same format as *j*.

m = Main store error register 2 after a read of the first failing memory location, in hexadecimal notation.

Bit 28 - HA parity group failure - (not available on UN39 type MASC).
Bit 23 - Trapped address bit 25 (UN618 type MASC). See main store trapped address error register.
Bit 21 - Trapped address parity byte 0 (UN59C and UN618 type MASC). See main store trapped address error register.
Bit 6 - PX parity group failure.
Bit 5 - PY parity group failure.
Bit 4 - PZ parity group failure.
Bit 3 - H0 parity group failure.
Bit 2 - H1 parity group failure.
Bit 1 - H2 parity group failure.
Bit 0 - H3 parity group failure.

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n = Main store trapped address error register after a read of the first failing memory location, in hexadecimal notation. Trapped address parity for byte 0 (UN59C and UN618 type MASC) and trapped address bit 25 (UN618 type MASC) appear in main store error register 2.

Bit 31 - Trapped address bit 24 (UN59C type and UN618 type MASC).
Bit 30 - Trapped address bit 23 (not available on UN39 type MASC).
Bit 29 - Error C
Bit 28 - Error D
Bit 27 - Address trapped indicator.
Bit 23 - Read-write (1) or refresh (0) data parity error.
Bit 1 - Noncorrectable parity failure.
Bit 0 - Correctable (single-bit) parity failure.

o = Main store error register after a read of the first failing memory location in hexadecimal notation.

Bit 22 - Block store go error A.
Bit 11 - No row select on refresh error A.
Bit 10 - Row or column selects on maint op error A.
Bit 9 - Double half plane select row error A.
Bit 8 - Double half plane select column error A.
Bit 7 - Select row and column error A.
Bit 6 - Array address parity error A.
Bit 5 - Command bit parity error A.
Bit 4 - Busy clear F/F state error A.
Bit 3 - Latched normal address parity error A.
Bit 2 - Refresh address counter mismatch error A.
Bit 1 - Write data parity error A.
Bit 0 - Address loop - around F/F error A.

p = Number of failing locations for which histogram information was collected, in decimal notation. The upper limit is usually 100.

q = Number of addresses listed in *r*, in decimal notation.

r = List of the first *q* failing addresses, in hexadecimal notation.

s = Number of times the specified data bit (0-31) or parity bit (H0, H1, H2, H3, PX, PY, PZ, PA) was read as 0 when it was expected to be 1, in decimal notation.

t = Number of times the specified data or parity bit was read as 1 when it was expected to be 0, in decimal notation.

u = Number of times the address bit was 0 when a memory failure was detected, in decimal notation.

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v = Number of times the address bit was 1 when a memory failure was detected, in decimal notation.

w = Number of times a multi-bit error occurred, in decimal notation. See explanation of item *j*, bit 23.

x = Number of times a logic error occurred, in decimal notion. See explanation of item *j*, bit 22.

y = Central control error register (CC ER) after a read of the first failing memory location or after a store error is detected, in hexadecimal notation.

Usually the under test CU CC ER with byte parities in bits 31-28 from the failing address. For MASC phases 39, 41, and 96, the ACTIVE CU CC ER with byte parities in bits 31-28 from a read of the under test CU MASC at the failing address.

4. ACTION TO BE TAKEN

Replace the memory array identified by the failing array information in the first fault data.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key
This message has an OMDB key of 53.

Input Messages

```
ALW:DMQ
DGN:CU
INH:DMQ
OP:DMQ
RMV:CU
RST:CU
STOP:DMQ
STP:DMQ
```

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Output Messages

```
ANALY-TLPFILE
DGN-AUDIT
DGN-CU
OP-DMQ
REPT-DGN,AUDIT
REPT-DIAMON
RMV-CU
RST-CU
```

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ID . . . . . DGN-DCI
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `DGN DCI` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `DGN DCI` *a* `PH` *d b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `DGN DCI` *a* `PH` *d* `STF (`*c*`)  MSG IP`
`TEST  MISMATCH  ACTUAL  MASK  EXPECTED`
e f g h i

[4] `DGN DCI` *a* `ABORTED AT PH` *d* `STMNT` *j b* `[(`*c*`)]  MSG IP`

[5] `DGN DCI` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `DGN DCI` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the dual serial channel/computer interconnect (DCI).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

ATP — All tests passed.
CATP — All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.
NTR — No tests were run.
STF — Some tests failed.

c = If *b* = CATP or NTR, *c* identifies the reasons tests were skipped by their position in a 16-digit hexadecimal number. For example, if *c* = (00000000 00000018), tests were skipped for reasons 3 and 4.

If *b* = STF, *c* identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, if *d* = (00000000 00000006), tests were skipped for reasons 1 and 2. The reason codes are as follows:

Bits 0 - 63 — Unused.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in *g* are of interest to this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h*, and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If *b* = CATP, the needed system resource should be made available if possible, so that all tests may be executed. If *b* = STF, the unit should be repaired as quickly as possible. Refer to *Corrective Maintenance Procedures* for repair procedures.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key(s)

Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Message(s)

```
ALW:DMQ
DGN:DCI
INH:DMQ
OP:DMQ
RMV:DCI
RST:DCI
STOP:DMQ
STP:DMQ
```

Output Message(s)

```
ANALY-TLPFILE
DGN-AUDIT
OP-DMQ
REPT-DGN,AUDIT
REPT-DIAMON
RMV-DCI
RST-DCI
```

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ID . . . . . DGN-DFC-A
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `DGN DFC` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `DGN DFC` *a* `PH` *d* *b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `DGN DFC` *a* `PH` *d* `STF (`*c*`)  MSG IP`
`TEST  MISMATCH  ACTUAL  MASK  EXPECTED`
e *f* *g* *h* *i*

[4] `DGN DFC` *a* `ABORTED AT PH` *d* `STMNT` *j* *b* `[(`*c*`)]  MSG IP`

[5] `DGN DFC` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `DGN DFC` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the disk file controller (DFC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

- ATP — All tests passed.
- CATP — All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.
- NTR — No tests were executed.
- STF — Some tests failed.

c = If *b* = CATP or NTR, *c* identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, if *c* = (00000000 00000006), tests were skipped for reasons 3 and 4.

If *b* = STF, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 00000006), seven tests failed, plus tests were skipped for reasons 1 and 2. The reasons are as follows:

- Bit 0 — Helper unit invalid or not specified.
- Bit 1 — Helper unit cannot be reserved.
- Bit 2 — Helper unit is not out-of-service.
- Bit 3 — Helper control unit (CU) is not ATP.
- Bit 4 — Helper unit not connected to controller being diagnosed.
- Bits 5 — 63 - Unused.

NOTE: To interpret CATP bits 32-46, the structure of the system must be understood. All device references are relative to the DFC under test, and may not correspond to "real" unit numbers. The down pointer of the DFC will point to the first SBUS. The side pointer of the first SBUS points to the second SBUS. Similarly, the down pointer of an SBUS points to the first MHD beneath it. The side pointer of an MHD points to the next MHD in the chain. These concepts are displayed graphically on display pages 120 and 122. The leftmost SBUS under a DFC is considered first SBUS, with the rightmost SBUS being second. MHD relative numbering for each SBUS is top-down, with the top MHD being first and the bottom being last. Currently only four MHDs per SBUS are supported.

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Bit	Reason
32	First MHD on first SBUS of DFC did not respond correctly.
33	Second MHD on first SBUS of DFC did not respond correctly.
34	Third MHD on first SBUS of DFC did not respond correctly.
35	Fourth MHD on first SBUS of DFC did not respond correctly.
36	Reserved for fifth MHD on first SBUS of DFC.
37	Reserved for sixth MHD on first SBUS of DFC.
38	Reserved for seventh MHD on first SBUS of DFC.
40	First MHD on second SBUS of DFC did not respond correctly.
41	Second MHD on second SBUS of DFC did not respond correctly.
42	Third MHD on second SBUS of DFC did not respond correctly.
43	Fourth MHD on second SBUS of DFC did not respond correctly.
44	Reserved for fifth MHD on second SBUS of DFC.
45	Reserved for sixth MHD on second SBUS of DFC.
46	Reserved for seventh MHD on second SBUS of DFC.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in *g* are of interest to this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h*, and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

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4. ACTION TO BE TAKEN

If *b* = CATP, the needed system resource should be made available if possible, so that all tests may be executed. If *b* = STF, the unit should be repaired as quickly as possible. Refer to the *Corrective Maintenance Procedures* manual for repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key(s)
Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Message(s)

```
ALW:DMQ
DGN:DFC
INH:DMQ
OP:DMQ
RMV:DFC
RST:DFC
STOP:DMQ
STP:DMQ
```

Output Message(s)

```
ANALY-TLPFILE
DGN-AUDIT
OP-DMQ
REPT-DGN,AUDIT
REPT-DIAMON
RMV-DFC
RST-DFC
```

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ID . . . . . DGN-DFC-B
GENERIC . . . . . UNIX RTR R21.27 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `DGN DFC` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `DGN DFC` *a* `PH` *d* *b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `DGN DFC` *a* `PH` *d* `STF (`*c*`)  MSG IP`
`TEST  MISMATCH  ACTUAL  MASK  EXPECTED`
e *f* *g* *h* *i*

[4] `DGN DFC` *a* `ABORTED AT PH` *d* `STMNT` *j* *b* `[(`*c*`)]  MSG IP`

[5] `DGN DFC` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `DGN DFC` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

[7] `DGN DFC` *a* `- FLASH MEMORY UPDATE PROCESS IN PROGRESS`
`DO NOT STOP THIS DIAGNOSTIC DURING FLASH MEMORY UPDATE`
`THIS PROCESS SHOULD RUN NO LONGER THAN 15 MINUTES`
`AND MAY RUN ONLY A FEW SECONDS IF NO UPDATE IS REQUIRED`

[8] `DGN DFC` *a* `- FLASH MEMORY UPDATE PROCESS COMPLETE`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the disk file controller (DFC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

Format 7 indicates that the Flash update process has started, warning the user against stopping the diagnostic until the Flash update process has completed.

Format 8 indicates that the Flash update process has completed.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

- `ATP` — All tests passed.
- `CATP` — All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.
- `NTR` — No tests were executed.
- `STF` — Some tests failed.

c = If *b* = `CATP` or `NTR`, *c* identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, if *c* = (00000000 00000006), tests were skipped for reasons 3 and 4.

If *b* = `STF`, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 00000006), seven tests failed, plus tests were skipped for reasons 1 and 2. The reasons are as follows:

- `Bit 0` — Helper unit invalid or not specified.
- `Bit 1` — Helper unit cannot be reserved.
- `Bit 2` — Helper unit is not out-of-service.
- `Bit 3` — Helper control unit (CU) is not ATP.
- `Bit 4` — Helper unit not connected to controller being diagnosed.
- Bits 5 — 63 - Unused.

NOTE: To interpret `CATP` bits 32-46, the structure of the system must be understood. All device references are relative to the DFC under test, and may not correspond to "real" unit numbers. The down pointer of the DFC will point to the first SBUS. The side pointer of the first SBUS points to the second SBUS. Similarly, the down pointer of an SBUS points to the first MHD beneath it. The side pointer of an MHD points to the next MHD in the chain. These concepts are displayed graphically on display pages 120 and 122. The leftmost SBUS under a DFC is considered first SBUS, with the rightmost SBUS being second. MHD relative numbering for each SBUS is top-down, with the top MHD being first and the bottom being last. Currently only four MHDs per SBUS are supported.

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Bit	Reason
32	First MHD on first SBUS of DFC did not respond correctly.
33	Second MHD on first SBUS of DFC did not respond correctly.
34	Third MHD on first SBUS of DFC did not respond correctly.
35	Fourth MHD on first SBUS of DFC did not respond correctly.
36	Reserved for fifth MHD on first SBUS of DFC.
37	Reserved for sixth MHD on first SBUS of DFC.
38	Reserved for seventh MHD on first SBUS of DFC.
40	First MHD on second SBUS of DFC did not respond correctly.
41	Second MHD on second SBUS of DFC did not respond correctly.
42	Third MHD on second SBUS of DFC did not respond correctly.
43	Fourth MHD on second SBUS of DFC did not respond correctly.
44	Reserved for fifth MHD on second SBUS of DFC.
45	Reserved for sixth MHD on second SBUS of DFC.
46	Reserved for seventh MHD on second SBUS of DFC.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in *g* are of interest to this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h*, and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

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4. ACTION TO BE TAKEN

If *b* = CATP, the needed system resource should be made available if possible, so that all tests may be executed. If *b* = STF, the unit should be repaired as quickly as possible. Refer to the *Corrective Maintenance Procedures* manual for repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key(s)

Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.
Format 7 has an OMDB key of 23.
Format 8 has an OMDB key of 61.

Input Message(s)

```
ALW:DMQ
DGN:DFC
INH:DMQ
OP:DMQ
RMV:DFC
RST:DFC
STOP:DMQ
STP:DMQ
```

Output Message(s)

```
ANALY-TLPFILE
DGN-AUDIT
OP-DMQ
REPT-DGN,AUDIT
REPT-DIAMON
RMV-DFC
RST-DFC
```

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ID . . . . . DGN-DUIC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `DGN DUIC` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `DGN DUIC` *a* `PH` *d b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `DGN DUIC` *a* `PH` *d* `STF (`*c*`) MSG IP`
`TEST MISMATCH ACTUAL MASK EXPECTED`
e f g h i

[4] `DGN DUIC` *a* `ABORTED AT PH` *d* `STMNT` *j b* `[(`*c*`)] MSG IP`

[5] `DGN DUIC` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `DGN DUIC` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the direct user interface controller (DUIC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination) since further testing would not improve diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

ATP — All tests passed.
NTR — No tests were run.
STF — Some tests failed.

c = If *b* = STF, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in *g* are of interest to this test.

i = The value that the test expected.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If *b* = STF, the unit should be repaired as quickly as possible. Refer to TOP 235-105-220 for repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key(s)
Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

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Input Message(s)

```
DGN:DUIC
INH:DMQ
OP:DMQ
RMV:DUIC
RMV:IOP
RST:DUIC
RST:IOP
STOP:DMQ
STP:DMQ
```

Output Message(s)

```
ANALY-TLPFILE
DGN-AUDIT
OP-DMQ
REPT-DGN,AUDIT
REPT-DIAMON
RMV-DUIC
RMV-IOP
RST-DUIC
RST-IOP
```

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ID . . . . . DGN-HSDC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `DGN HSDC` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `DGN HSDC` *a* `PH` *d b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `DGN HSDC` *a* `PH` *d* `STF (`*c*`) MSG IP`
`TEST MISMATCH ACTUAL MASK EXPECTED`
e f g h i

[4] `DGN HSDC` *a* `ABORTED AT PH` *d* `STMNT` *j b* `[(`*c*`)] MSG IP`

[5] `DGN HSDC` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `DGN HSDC` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the high speed data link controller (HSDC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

ATP — All tests passed.
NTR — No tests were run.
STF — Some tests failed.

c = If *b* = STF, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *d* = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in *g* are of interest to this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h*, and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If *b* = STF, the unit should be repaired as quickly as possible. Refer to *Corrective Maintenance Procedures* for repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

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6. REFERENCES

OMDB Key(s)

Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Message(s)

```
ALW:DMQ
DGN:HSDC
INH:DMQ
OP:DMQ
RMV:HSDC
RST:HSDC
STOP:DMQ
STP:DMQ
```

Output Message(s)

```
ANALY-TLPFILE
DGN-AUDIT
OP-DMQ
REPT-DGN,AUDIT
REPT-DIAMON
RMV-HSDC
RST HSDC
```

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ID . . . . . DGN-IOP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `DGN IOP` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `DGN IOP` *a* `PH` *d* *b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `DGN IOP` *a* `PH` *d* `STF (`*c*`) MSG IP`
`TEST MISMATCH ACTUAL MASK EXPECTED`
e *f* *g* *h* *i*

[4] `DGN IOP` *a* `ABORTED AT PH` *d* `STMNT` *j* *b* `[(`*c*`)] MSG IP`

[5] `DGN IOP` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `DGN IOP` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the input/output processor (IOP).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

- ATP — All tests passed.
- CATP — All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.
- NTR — No tests were run.
- STF — Some tests failed.

c = If *b* = CATP or NTR, *c* identifies the reasons tests were skipped by their position in a 16-digit hexadecimal number. For example, if *c* = (00000000 00000018), tests were skipped for reasons 3 and 4.

If *b* = STF, *c* identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, if *d* = (00000000 00000006), tests were skipped for reasons 1 and 2. The reason codes are as follows:

- Bit 0 — Helper unit not specified or invalid.
- Bit 1 — Helper unit cannot be reserved.
- Bit 2 — Helper unit not out-of-service.
- Bit 3 — Helper control unit (CU) is not ATP.
- Bit 4 — Helper unit not connected to controller being diagnosed.
- Bits 5 — 63 - Unused.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in *g* are of interest to this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h*, and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If *b* = CATP, the needed system resource should be made available if possible, so that all tests may be executed. If *b* = STF, the unit should be repaired as quickly as possible. Refer to *Corrective Maintenance Procedures* for repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key(s)
Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Message(s)

```
ALW:DMQ
DGN:IOP
INH:DMQ
OP:DMQ
RMV:IOP
RST:IOP
STOP:DMQ
STP:DMQ
```

Output Message(s)

```
ANALY-TLPFILE
DGN-AUDIT
OP-DMQ
REPT-DGN,AUDIT
REPT-DIAMON
RMV-IOP
RST-IOP
```

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ID . . . . . DGN-MHD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has seven formats.

[1] `DGN MHD` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `DGN MHD` *a* `PH` *d b* `[(`*c*`)]`
`{MESSAGE IN PROGRESS|MSG IP}`

[3] `DGN MHD` *a* `PH` *d* `STF (`*c*`) MSG IP`
`TEST MISMATCH ACTUAL MASK EXPECTED`
e f g h i

[4] `DGN MHD` *a* `ABORTED AT PH` *d* `STMNT` *j b* `[(`*c*`)] MSG IP`

[5] `DGN MHD` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `DGN MHD` *a* `PH 6 DISK READ/WRITE FAILURES`
`ERROR CODE JOB TYPE SECTOR HEAD`
l m n o

[7] `DGN MHD` *a* `TASK` *p* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the moving head disk (MHD).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input message.

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Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6, a histogram-type printout of disk read/write test failures, is printed if MHD phase 6 fails the read/write tests.

Format 7 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

ATP — All tests passed.
NTR — No tests were executed.
STF — Some tests failed.

c = If *b* = STF, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in the actual value are of interest to this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h*, and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Error code, in hexadecimal notation:

02 — disk read data all zeros
04 — disk read data mismatch
08 — disk read parity mismatch

For other error codes, see DFC Appendix B.

SEE PROPRIETARY NOTICE ON COVER PAGE

m = Numeric code for the job in progress at the time of the error:

- 1 — maintenance sector write worst case data
- 2 — maintenance sector read worst case data
- 3 — maintenance sector write inverted worst case data
- 4 — maintenance sector read inverted worst case data
- 5 — maintenance sector ECC test write
- 6 — maintenance sector ECC test read
- 41 — head selection error for maintenance sector write worst case data
- 42 — head selection error for maintenance sector read worst case data
- 43 — head selection error for maintenance sector write inverted worst case data
- 44 — head selection error for maintenance sector read inverted worst data case
- 45 — head selection error for maintenance sector ECC test write
- 46 — head selection error for maintenance sector ECC test read
- 81 — seek error for maintenance sector write worst case data
- 82 — seek error for maintenance sector read worst case data
- 83 — seek error for maintenance sector write inverted worst case data
- 84 — seek error for maintenance sector read inverted worst case data
- 85 — seek error for maintenance sector ECC test write
- 86 — seek error for maintenance sector ECC test read

n = Sector number where the error occurred.

o = Head number where the error occurred.

p = Task number assigned to the request.

4. ACTION TO BE TAKEN

For Formats 1 and 5, take no action.

For Formats 2, 3, and 4, if *b* = STF, the unit should be repaired as quickly as possible. See the *Lucent Technologies 3B20D Model 2 and Model 3 Computers - Common Systems, Routine Tasks* manual for repair procedures.

For Format 6, repair the unit as quickly as possible. Refer to the *Lucent Technologies 3B20D Model 2 Computer - Common Systems, Trouble Clearing* manual for repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Key(s)

Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has an OMDB key of 57.
Format 7 has OMDB keys of 70 and 99.

Input Message(s)

```
ALW:DMQ
DGN:MHD
INH:DMQ
OP:DMQ
RMV:DFC
RMV:MHD
RST:DFC
RST:MHD
STOP:DMQ
STP:DMQ
```

Output Message(s)

```
ANALY-TLPFILE
DGN-AUDIT
OP-DMQ
REPT-DGN,AUDIT
REPT-DIAMON
RMV-DFC
RMV-MHD
RST-DFC
RST-MHD
```

Practice 254-302-831 *Lucent Technologies 3B20D Model 2 and Model 3 Computers - Common Systems, Routine Tasks*

Practice 254-302-832 *Lucent Technologies 3B20D Model 2 Computer - Common Systems, Trouble Clearing*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . DGN-MT
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `DGN MT` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `DGN MT` *a* `PH` *d b* `[(`*c*`)]`
`{MESSAGE IN PROGRESS|MSG IP}`

[3] `DGN MT` *a* `PH` *d* `STF (`*c*`) MSG IP`
`TEST MISMATCH ACTUAL MASK EXPECTED`
e f g h i

[4] `DGN MT` *a* `ABORTED AT PH` *d* `STMNT` *j b* `[(`*c*`)] MSG IP`

[5] `DGN MT` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `DGN MT` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the magnetic tape (MT).

Format 1 prints at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was stopped due to an external or internal error in execution, or an input message.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ), or that the request has aborted.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

ATP — All tests passed.
NTR — No tests were executed.
STF — Some tests failed.

c = If *b* = STF, *c* identifies the number of test failures in addition to the number of tests skipped. For example, if *c* = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were received from the hardware device.

h = Determines what bits in the actual value are of interest to this test.

i = The value which the test expected.

NOTE: For Format 3, the values for *g*, *h*, and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

For Formats 1 and 5, no action is needed.

For Formats 2, 3, and 4, if *b* = STF, the unit should be repaired as quickly as possible; seek technical assistance.

For Format 6, repair the unit as quickly as possible; seek technical assistance.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Key(s)

Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Message(s)

```
ALW:DMQ
DGN:MT
INH:DMQ
OP:DMQ
RMV:DFC
RMV:MT
RST:DFC
RST:MT
STOP:DMQ
STP:DMQ
```

Output Message(s)

```
ANALY-TLPFILE
DGN-AUDIT
OP-DMQ
REPT-DGN,AUDIT
REPT-DIAMON
RMV-DFC
RMV-MT
RST-DFC
RST-MT
```

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computer UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . DGN-MTC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `DGN MTC` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `DGN MTC` *a* `PH` *d* *b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `DGN MTC` *a* `PH` *d* `STF (`*c*`) MSG IP`
`TEST MISMATCH ACTUAL MASK EXPECTED`
e *f* *g* *h* *i*

[4] `DGN MTC` *a* `ABORTED AT PH` *d* `STMNT` *j* *b* `[(`*c*`)] MSG IP`

[5] `DGN MTC` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `DGN MTC` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the magnetic tape controller (MTC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

ATP — All tests passed.
CATP — All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.
NTR — No tests were run.
STF — Some tests failed.

c = If *b* = CATP or NTR, *c* identifies the reasons tests were skipped by their position in a 16-digit hexadecimal number. For example, if *c* = (00000000 00000018), tests were skipped for reasons 3 and 4.

If *b* = STF, *c* identifies the reasons tests failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 0000006), seven tests failed, plus tests were skipped for reasons 1 and 2. The reason codes are as follows:

Bit 0 — Helper unit not specified or invalid.
Bit 1 — Helper unit cannot be reserved.
Bit 2 — Helper unit not out-of-service.
Bit 3 — Helper unit is not ATP.
Bit 4 — Helper unit not connected to controller being tested.
Bit 17 — Helper MT tape not mounted and/or transport door open.
Bit 18 — Helper MT transport not in "on-line" mode.
Bit 19 — Helper MT tape reel has no write enable ring (WER).
Bit 20 — Helper MT tape too long for diagnostic test tape.
Bit 21 — Helper MT tape has no header block at BOT or header block indicates not diagnostic test tape.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in the actual value are of interest to this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h*, and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

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k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If *b* = CATP, the needed system resource should be made available if possible, so that all tests may be executed. If *b* = STF, the unit should be repaired as quickly as possible. Refer to TOP 235-105-220 for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key(s)
Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Message(s)

```
ALW:DMQ
DGN:MTC
INH:DMQ
OP:DMQ
RMV:IOP
RMV:MTC
RST:IOP
RST:MTC
STOP:DMQ
STP:DMQ
```

Output Message(s)

```
DGN-AUDIT
OP-DMQ
REPT-DGN,AUDIT
REPT-DIAMON
RMV-IOP
RMV-MTC
RST-IOP
RST-MTC
```

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Practice 235-105-220 *Corrective Maintenance Procedures*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . DGN-MTTYC-A
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `DGN MTTYC` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `DGN MTTYC` *a* `PH` *d b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `DGN MTTYC` *a* `PH` *d* `STF (`*c*`)  MSG IP`
`TEST  MISMATCH  ACTUAL  MASK  EXPECTED`
e f g h i

[4] `DGN MTTYC` *a* `ABORTED AT PH` *d* `STMNT` *j b* `[(`*c*`)]  MSG IP`

[5] `DGN MTTYC` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `DGN MTTYC` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the maintenance teletypewriter controller (MTTYC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

ATP — All tests passed.
NTR — No tests were run.
STF — Some tests failed.

c = If *b* = STF, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in the actual value are of interest to this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h*, and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

Formats 1, 5, and 6 are informational reports and require no action.

For Formats 2, 3, and 4, if *b* = STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

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6. REFERENCES

OMDB Key(s)

Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Message(s)

```
ALW:DMQ
DGN:MTTYC
INH:DMQ
OP:DMQ
RMV:MTTYC
RST:MTTYC
STOP:DMQ
STP:DMQ
```

Output Message(s)

```
ANALY-TLPFILE
DGN-AUDIT
OP-DMQ
REPT-DGN,AUDIT
REPT-DIAMON
RMV-MTTYC
RST-MTTYC
```

Practice 235-105-220 *Corrective Maintenance Procedures*

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ID . . . . . DGN-MTTYC-B
GENERIC . . . . . UNIX RTR R21.27 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `DGN MTTYC` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `DGN MTTYC` *a* `PH` *d b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `DGN MTTYC` *a* `PH` *d* `STF (`*c*`)  MSG IP`
`TEST  MISMATCH  ACTUAL  MASK  EXPECTED`
e f g h i

[4] `DGN MTTYC` *a* `ABORTED AT PH` *d* `STMNT` *j b* `[(`*c*`)]  MSG IP`

[5] `DGN MTTYC` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `DGN MTTYC` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

[7] `DGN MTTYC` *a* `- FLASH MEMORY UPDATE PROCESS IN PROGRESS`
`DO NOT STOP THIS DIAGNOSTIC DURING FLASH MEMORY UPDATE`
`THIS PROCESS SHOULD RUN NO LONGER THAN 15 MINUTES`
`AND MAY RUN ONLY A FEW SECONDS IF NO UPDATE IS REQUIRED`

[8] `DGN MTTYC` *a* `- FLASH MEMORY UPDATE PROCESS COMPLETE`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the maintenance teletypewriter controller (MTTYC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

Format 7 indicates that the Flash update process has started, warning the user against stopping the diagnostic until the Flash update process has completed.

Format 8 indicates that the Flash update process has completed.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

ATP — All tests passed.
NTR — No tests were run.
STF — Some tests failed.

c = If *b* = STF, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in the actual value are of interest to this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h*, and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

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4. ACTION TO BE TAKEN

Formats 1, 5, and 6 are informational reports and require no action.

For Formats 2, 3, and 4, if *b* = STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key(s)
Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.
Format 7 has an OMDB key of 23.
Format 8 has an OMDB key of 61.

Input Message(s)

```
ALW:DMQ
DGN:MTTYC
INH:DMQ
OP:DMQ
RMV:MTTYC
RST:MTTYC
STOP:DMQ
STP:DMQ
```

Output Message(s)

```
ANALY-TLPFILE
DGN-AUDIT
OP-DMQ
REPT-DGN,AUDIT
REPT-DIAMON
RMV-MTTYC
RST-MTTYC
```

Practice 235-105-220 *Corrective Maintenance Procedures*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

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ID . . . . . DGN-SCSDC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `DGN SCSDC` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `DGN SCSDC` *a* `PH` *d b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `DGN SCSDC` *a* `PH` *d* `STF (`*c*`) MSG IP`
`TEST MISMATCH ACTUAL MASK EXPECTED`
e f g h i

[4] `DGN SCSDC` *a* `ABORTED AT PH` *d* `STMNT` *j b* `[(`*c*`)] MSG IP`

[5] `DGN SCSDC` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `DGN SCSDC` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the scanner and signal distributor controller (SCSDC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

ATP — All tests passed.
NTR — No tests were run.
STF — Some tests failed.

c = If *b* = STF, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in the actual value are of interest to this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h*, and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If *b* = STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

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6. REFERENCES

OMDB Key(s)

Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Message(s)

```
ALW:DMQ
DGN:SCSDC
INH:DMQ
OP:DMQ
RMV:SCSDC
RST:SCSDC
STOP:DMQ
STP:DMQ
```

Output Message(s)

```
ANALY-TLPFILE
DGN-AUDIT
OP-DMQ
REPT-DGN,AUDIT
REPT-DIAMON
```

Practice 235-105-220 *Corrective Maintenance Procedures*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . DGN-SDLC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `DGN SDLC` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `DGN SDLC` *a* `PH` *d b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `DGN SDLC` *a* `PH` *d* `STF (`*c*`) MSG IP`
`TEST MISMATCH ACTUAL MASK EXPECTED`
e f g h i

[4] `DGN SDLC` *a* `ABORTED AT PH` *d* `STMNT` *j b* `[(`*c*`)] MSG IP`

[5] `DGN SDLC` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `DGN SDLC` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the synchronous data link controller (SDLC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

ATP — All tests passed.
NTR — No tests were run.
STF — Some tests failed.

c = If *b* = STF, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in the actual value are of interest to this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h*, and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If *b* = STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Key(s)

Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Message(s)

```
ALW:DMQ
INH:DMQ
OP:DMQ
RMV:SDLC
RST:SDLC
STOP:DMQ
STP:DMQ
```

Output Message(s)

```
ANALY-TLPFILE
OP-DMQ
REPT-DIAMON
```

Practice 235-105-220 *Corrective Maintenance Procedures*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . DGN-TTYC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `DGN TTYC` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `DGN TTYC` *a* `PH` *d b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `DGN TTYC` *a* `PH` *d* `STF (`*c*`)  MSG IP`
`TEST  MISMATCH  ACTUAL  MASK  EXPECTED`
e f g h i

[4] `DGN TTYC` *a* `ABORTED AT PH` *d* `STMNT` *j b* `[(`*c*`)]  MSG IP`

[5] `DGN TTYC` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `DGN TTYC` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the teletypewriter controller (TTYC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

ATP — All tests passed.
NTR — No tests were executed.
STF — Some tests failed.

c = If *b* = STF, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in the actual value are of interest to this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h*, and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If *b* = STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

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6. REFERENCES

OMDB Key(s)

Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Message(s)

```
ALW:DMQ
INH:DMQ
OP:DMQ
RMV:IOP
RMV:TTYC
RST:IOP
RST:TTYC
STOP:DMQ
STP:DMQ
```

Output Message(s)

```
ANALY-TLPFILE
OP-DMQ
REPT-DIAMON
RMV-IOP
RMV-TTYC
RST-IOP
RST-TTYC
```

Practice 235-105-220 *Corrective Maintenance Procedures*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . DUMP-ADDR
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `DUMP ADDR` *a* `[OFF` *b*`] COMPLETED` *#e*
`ADDRESS (HEX): CONTENTS OF MEMORY (HEX):`
c *d*

[2] `DUMP ADDR` *a* `[OFF` *b*`] STOPPED NGADDR` *#e*

2. REASON FOR OUTPUT

To report the result of executing the `DUMP:ADDR` input message to dump out the contents of an address or address range in main memory.

Format 2 indicates an error was encountered in the indirection addressing chain.

3. VARIABLE FIELD DEFINITIONS

a = Virtual address specified in input message.

b = Offset(s) used on input message line.

c = Address label for line of data.

d = Data as dumped from memory.

e = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If Format 2 is printed, recheck the program listings. If an indirection chain was specified, try breaking the chain into several parts and printing the intermediate addresses.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 494 and 514.

Input Message
`DUMP:ADDR`

SEE PROPRIETARY NOTICE ON COVER PAGE

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . DUMP-BKTAPE
GENERIC . . . . . UNIX RTR 21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1]
```
DUMP BKTAPE TD a b [ c ]
[ CANNOT CREATE TEMPORARY FILE FOR REPORT |
CANNOT OPEN INPUT DEVICE, ERROR d |
ECD ERROR e |
HARDWARE PLATFORM NOT VALID FOR MULTI VOLUME TAPE |
INCOMPLETE READ FROM INPUT DEVICE |
INVALID MULTI VOLUME TAPE HEADER |
NO DATA ON TAPE |
READ FAILED FROM INPUT DEVICE, ERROR d |
SETIO FAILED ON INPUT DEVICE, ERROR d |
TAPE CONTAINS NONSEQUENTIAL SESSIONS |
TAPE CONTAINS VOLUMES NOT IN ASCENDING ORDER |
TAPE DEVICE IS NOT ACTIVE |
TAPE DEVICE NOT VALID FOR MULTI VOLUME TAPE |
TAPE HEADER CONTAINS INVALID SESSION |
TAPE HEADER CONTAINS INVALID VOLUME |
TAPE LIBRARY ERROR f |
TOO MANY TOP FILES ON INPUT TAPE ]
```

[2]
```
DUMP BKTAPE TD a IN PROGRESS
SESSION  VOLUME  NAME    BLOCKS   SOURCE       DATE
g        h       i       j        k            l
.
.
.
[ CUMULATIVE BLOCKS m ]
[ ESTIMATE n METER TAPE IS o% FULL ]
```

[3]
```
DUMP BKTAPE TD a IN PROGRESS
SESSION  VOLUME  NAME    BLOCKS   SOURCE       DATE
g        h       i       j        k            l
```

[4]
```
DUMP BKTAPE TD a IN PROGRESS
[ CUMULATIVE BLOCKS m ]
```

2. REASON FOR OUTPUT

To display logical volume information for the multi-volume digital audio tape (DAT) loaded in the user-specified tape drive. The logical volume information consists of the backup session number, logical volume number, logical volume name, size, source disk, and date written. The logical volume information will be displayed as a result of executing

either the DUMP:BKTAPE command or the DUMP BKTAPE command poke on the DFC Status Page. If the command was invoked via a command poke, a REPT-DKDIP message will precede the output message.

3. VARIABLE FIELD DEFINITIONS

a = Pathname of the tape special device file.

b = Request status.

ABORTED — The dump failed and aborted .
COMPLETED — The dump completed with no errors.
IN PROGRESS — The dump is processing logical volume headers.
STARTED — The dump started processing logical volume headers.
STOPPED — The dump failed and stopped.

c = Error code output by the DUMP BKTAPE command poke on the DFC Status Page.

f01 — Failed to get ECD information for tape device.
f05 — Special device file is not for a DAT.
f09 — Tape device is not active.
f0d — Failed to allocate data buffer.
f11 — Invalid buffer address.
f15 — entry() call failed.
f19 — Failed to rewind tape.
f1d — Failed to open no-rewind tape device.
f21 — Failed to get tape header information.
f25 — Failed to close no-rewind tape device.
f29 — Failed to rewind tape.
f2d — Failed to get ECD logdev record for tape special device file.
f31 — Failed to get mdct record for tape special device file.
f35 — Invalid partition value for tape special device file.
f39 — Failed to get ucb record for tape device.
f3d — Failed to get tape device driver PID.
f41 — Failed to open rewind tape device.
f45 — Failed to close rewind tape device.
f49 — send_rcv() call failed.
f4d — Failed to open tape device.
f51 — send_rcv() call failed.
f55 — Failed to close tape device.
f59 — send_rcv() call failed.
f5d — Tape header read failed.
f61 — Invalid multi-volume tape.
f65 — Tape header read failed.
f69 — Tape header contains invalid session number.
f6d — Tape header contains invalid volume number.
f71 — Invalid multi-volume tape.
f75 — Sessions are not sequential.
f79 — Volumes are not in ascending order.
f7d — ioqueuem() call failed.
f81 — tio_ack() call failed.

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f85 — Tape I/O message timed out.

d = System error code number (see the System Error Codes Output Appendix, SYSERR).

e = Internal error code for failure of an equipment configuration database (ECD) access function.

1 — `getdbseg()` failed, could not attach to the ECD.
2 — `lla_iatt()` failed, could not attach to the incore database.
3 — `lla_rdget()` failed, could not get the `ecdorg` record from the ECD.
4 — `lla_get()` failed, could not get the `logdev` record from the ECD.
5 — `lla_rdget()` failed, could not get the `mdct` record from the ECD.
6 — `lla_rdget()` failed, could not get the `ucb` record from the ECD.
10 — `rmovdbseg()` failed, could not remove incore database segments.

f = Error code returned by a failed tape library function (see the Tape Library Error Appendix, TAPE-LIB).

g = Session number (1-9).

h = Logical volume number (0-9).

i = Logical volume name (`TOP`, `AMTEXT`, `AMODD`, `SMTEXT`, `SMODD1`, `SMODD2`, `SMODD3`,`SMODD4`, `SMODD5`, or `SMODD6`).

j = Size, in 512 byte blocks, of the logical volume. NAV (not available) is output if the logical volume is a TOP volume.

k = Name of the source disk(s). NAV (not available) is output if the logical volume is a TOP volume.

l = Date (mm/dd/yy) on which the logical volume was written. NAV (not available) is output if the logical volume is a TOP volume.

m = Total size, in 512 byte blocks, of the data on the DAT. The total size does not include the TOP volume.

n = Length, in meters, of the DAT.

o = Estimated percentage of the DAT that is being used.

4. ACTION TO BE TAKEN

Errors will be accompanied by explanatory text or an error code. Verify that the command that was input is consistent with the `DUMP:BKTAPE` input message manual page. If the message indicates that there is a problem with the tape, verify that the correct tape is loaded in the specified tape drive. If the message indicates that there is a problem accessing the tape drive, verify that the tape is loaded and the tape drive is active. If these checks fail to uncover the problem, or if the description of the error is not self-explanatory, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This alarm is either a manually-requested report or an automatically-generated report for information only.

6. REFERENCES

OMDB Key(s):
Format 1 has OMDB keys of 749, 760 or 761.
Format 2 has OMDB keys of 762 or 763.
Format 3 has an OMDB key of 750.
Format 4 has an OMDB key of 751.

Input Message(s)
DUMP:BKTAPE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . DUMP-CACHE
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `DUMP CACHE` *a b*

[2] `DUMP CACHE NOT STARTED`
`CONFLICT WITH CURRENT SYSTEM STATUS` *c*

2. REASON FOR OUTPUT

To report the status of a request to dump the contents of cache in the off-line processor.

3. VARIABLE FIELD DEFINITIONS

a = Request status:

`COMPLETED` — The off-line cache was dumped successfully.

`STOPPED` — The cache dump could not be completed because of an error.

b = Reason the cache dump was stopped.

1 — Process maintenance driver (PCPMD) could not open physical memory (`/dev/pmem`).

2 — PCPMD could not set the position of the input stream after opening physical memory.

3 — PCPMD reached an end-of-file (EOF) when it tried to search for information located in physical memory.

4 — PCPMD encountered an error in reading the contents of physical memory.

5 — PCPMD could not set the contents of a register in the off-line processor.

6 — PCPMD failed when it tried to copy data to the memory of the off-line processor.

7 — PCMPD could not execute a program in the off-line processor.

8 — The `DUMP:CACHE` message could not reserve the unit control block (UCB) of the off-line processor.

SEE PROPRIETARY NOTICE ON COVER PAGE

c = Could not access or reserve the UCB record of the mate CU, or the mate CU was not out-of-service.

4. ACTION TO BE TAKEN

If *b* = 1 - 4, the indication is that a software error occurred. Collect all relevant receive-only printer (ROP) data and seek technical assistance.

If *b* = 5 - 7, the problem is most likely with the maintenance channel or the off-line processor. Diagnose the off-line processor.

If *b* = 8, make sure that another process does not have control of the off-line processor (that is, diagnostics or a CU restore) since these reserve the off-line processor's UCB. If it appears that a diagnostic or CU restore was in progress, wait for its completion and try again. If the message still fails in the same manner, seek technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Format 1 has an OMDB key of 416.

Input Message
```
DUMP:CACHE
```

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . DUMP-F,ALL
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `DUMP FILE ALL {STARTED | IN PROGRESS | COMPLETED}`
a

[2] `DUMP FILE ALL STOPPED`
b

2. REASON FOR OUTPUT

To report the result of executing a `DUMP:F;ALL` input command to dump the contents of an ASCII file.

Format 1 indicates successful execution of the command.

Format 2 indicates failure.

NOTE: `STARTED`, `IN PROGRESS`, and `COMPLETED` messages appear when three or more output segments are printed.

`STARTED` and `COMPLETED` messages appear when two output segments are printed.

A `COMPLETED` message appears when only one output segment is printed.

3. VARIABLE FIELD DEFINITIONS

a = Contents of the file.

b = Text explaining why the command was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates success. No action is required.

If Format 2 is printed, refer to the input message manual for the correct command format, and correct any command line errors. If the explanatory text indicates that the file cannot be accessed, verify the file's existence using the `OP:STATUS;LISTDIR` command. If the text is not self-explanatory, seek technical assistance.

5. ALARMS

None. This alarm is either a manually-requested report, or an automatically-generated report for information only.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 282.
Format 2 has an OMDB key of 288.

Input Messages
```
DUMP:F;ALL
DUMP:F;DATA
DUMP:F;PARTL
OP:ST;LSTDIR
```

Output Messages
```
DUMP-F,PARTL
OP-ST,LSTDIR
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

ID . . . . . DUMP-F,FORMAT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `DUMP FILE FORMAT {STARTED | IN PROGRESS | COMPLETED}`
a

[2] `DUMP FILE FORMAT STOPPED`
b

2. REASON FOR OUTPUT

To report the execution of a `DUMP:FILE;FORMAT` input message to dump the contents of a file.

Format 1 indicates successful execution of the command.

Format 2 indicates failure.

NOTE: `STARTED`, `IN PROGRESS`, and `COMPLETED` messages appear when three or more output segments are printed.

`STARTED` and `COMPLETED` messages appear when two output segments are printed.

A `COMPLETED` message appears when only one output segment is printed.

3. VARIABLE FIELD DEFINITIONS

a = Contents of the file in ASCII, decimal, octal, or hexadecimal notation. Default = octal notation. If the dump is in ASCII notation, the following special symbols are used to express nongraphic characters:

\ 0 = null
\ b = backspace
\ f = form-feed
\ n = new-line
\ r = return
\ t = tab

Other nongraphic characters appear as three-digit octal numbers.

b = Pathname specified in the input message.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

Format 1 indicates success; no action needed.

For Format 2, refer to the input message manual for the correct command format, and correct any command line errors. If the explanatory text indicates that the file cannot be accessed, verify the file's existence using the `OP:STATUS;LISTDIR` input message. If the text is not self-explanatory, seek technical assistance.

5. ALARMS

None. This alarm is either a manually-requested report, or an automatically-generated report for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 282.
Format 2 has an OMDB key of 288.

Input Messages
```
DUMP:F;ALL
DUMP:F;FORMAT
DUMP:F;PARTL
OP:ST;LSTDIR
```

Output Messages
```
DUMP-F,ALL
DUMP-F,PARTL
OP-ST,LSTDIR
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

ID . . . . . DUMP-F,PARTL
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `DUMP FILE PARTL {STARTED |IN PROGRESS |COMPLETED}`
a

[2] `DUMP FILE PARTL STOPPED`
b

2. REASON FOR OUTPUT

To print one or more lines of an ASCII file as the result of executing a `DUMP:FILE;PARTL` input message.

NOTE: `STARTED`, `IN PROGRESS` and `COMPLETED` messages appear when three or more output segments are printed.

`STARTED` and `COMPLETED` messages appear when two output segments are printed.

A `COMPLETED` message appears when only one output segment is printed.

3. VARIABLE FIELD DEFINITIONS

a = Content of specified line(s).

b = Text explaining why the command was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates that the command executed successfully.

Format 2 can be printed due to several errors which the system may encounter. If the explanatory text indicates that the file cannot be accessed, use the `OP:STATUS;LISTDIR` input message to verify the existence of the file. If the explanatory test indicates that there is insufficient disk space to execute the command, use the `OP:STATUS;FREEDISK` input message to verify that there is free space in the file system under which the file being edited resides.

Seek technical assistance if the message is not self-explanatory.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This alarm is either a manually-requested report, or an automatically-generated report for information only.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 282.

Input Messages
```
DUMP:F;ALL
DUMP:F;FORMAT
DUMP:F;PARTL
OP:ST;FRDISK
OP:ST;LSTDIR
```

Output Messages
```
DUMP-F,ALL
DUMP-F,FORMAT
OP-ST,LSTDIR
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

ID . . . . . DUMP-KERN
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `DUMP KERN` *a* `[OFF` *b*`] #`*e*
`ADDRESS (HEX): CONTENTS OF MEMORY (HEX):`
c *d*

[2] `DUMP KERN` *a* `[OFF` *b*`] STOPPED NGADDR #`*e*

2. REASON FOR OUTPUT

To report the result of executing a `DUMP:KERN` input message to dump out the contents of an address or address range in the kernel.

Format 2 indicates the address specified is not valid for the process, or invalid address values were encountered in the address chain if offsets were used.

3. VARIABLE FIELD DEFINITIONS

a = Virtual address specified in input message.

b = Offset(s) used on input command line.

c = Address label for line of data.

d = Data as dumped from memory.

e = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If Format 2 is printed, recheck the program listings. If an indirection chain was specified, try breaking the chain into several parts and printing the intermediate addresses.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 494 and 514.

Input Message
`DUMP:KERN`

SEE PROPRIETARY NOTICE ON COVER PAGE

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . DUMP-MHD,BLK-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has six formats.

[1] `DUMP MHD` *a* `BLOCK {STARTED | IN PROGRESS}`
`[DATA FOR DISK BLOCK` *d*
e`]`

[2] `DUMP MHD` *a* `BLOCK COMPLETED`

[3] `DUMP MHD` *a* `BLOCK NOT STARTED` *b c*

[4] `DUMP MHD` *a* `BLOCK STOPPED` *b c*

[5] `DUMP MHD` *a* `BLOCK ERROR` *b c*

[6] `DUMP MHD` *a* `BLOCK ABORTED` *b*

2. REASON FOR OUTPUT

To report the status of a request to display the contents of a disk block.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the moving head disk (MHD).

b = Process step or reason code. One of the following:

`f03` — cannot open ECD
`f06` — cannot get UCB by name
`f12` — cannot reserve UCB
`f15` — cannot assign special device file name
`f18` — cannot open special device file name
`f21` — cannot set input/output mode of device file
`f24` — failed to open output file
`f25` — `fseek()` failed on output file
`f27` — `lseek()` to start block failed
`f30` — disk read failed
`f33` — process timed out
`f36` — failed to close special device file
`f39` — failed to release special device file
`f42` — failed to unreserve UCB
`f45` — failed to close ECD
`f48` — terminated externally with signal

c = System error code number. See System Error Codes Output Appendix, `SYSERR-APP`.

SEE PROPRIETARY NOTICE ON COVER PAGE

d = Identifies the disk block which is being dumped.

e = Data contained in the specified disk block. Printed in row major order, hexadecimal notation.

4. ACTION TO BE TAKEN

Noncompletion termination reports which provide an error code usually indicate that a system resource was not available or became unavailable to perform the task. Clear the problem causing the resource limitation and retry the input request.

In some instances, other UNIX® RTR error messages may be printed which may provide information pertaining to the failure encountered.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 247.
Formats 2, 3, 4, 5, and 6 have an OMDB key of 246.

Output Appendix
SYSERR-APP

Input Message
DUMP:MHD;BLK

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . DUMP-MHD,BLK-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has six formats.

[1] `DUMP MHD` *a* `BLOCK {STARTED | IN PROGRESS}`
`[DATA FOR DISK BLOCK` *d*
e`]`

[2] `DUMP MHD` *a* `BLOCK COMPLETED`

[3] `DUMP MHD` *a* `BLOCK NOT STARTED` *b c*

[4] `DUMP MHD` *a* `BLOCK STOPPED` *b c*

[5] `DUMP MHD` *a* `BLOCK ERROR` *b c*

[6] `DUMP MHD` *a* `BLOCK ABORTED` *b*

2. REASON FOR OUTPUT

To report the status of a request to display the contents of a disk block.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the moving head disk (MHD).

b = Process step or reason code. One of the following:

`f03` — failed to open ECD
`f06` — failed to get UCB by name
`f12` — failed to reserve UCB
`f15` — failed to assign special device file name
`f18` — failed to open special device file
`f20` — failed to set I/O mode of device file
`f21` — failed to enable message reception
`f22` — starting disk block exceeds disk boundary
`f23` — ending disk block exceeds disk boundary
`f24` — failed to `fopen()` output file
`f25` — `fseek()` failed on output file
`f27` — `lseek()` to start block failed
`f30` — disk read failed
`f33` — process timed out
`f36` — failed to close special device file
`f39` — failed to release special device file
`f42` — failed to unreserve UCB
`f45` — failed to close ECD

SEE PROPRIETARY NOTICE ON COVER PAGE

`f48` — terminated externally with signal
`f50` — `diskinfo()` library call failed
`f53` — `lseek()` to "combined" defect table failed
`f56` — read of "combined" defect table failed
`f60` — failed to get the segment number
`f63` — see DKDRV report on the ROP
`f69` — SCSI "read capacity" command failed
`f70` — message to port failure
`f73` — message reception failure

c = System error code number. See System Error Codes Output Appendix, `SYSERR-APP`.

d = Identifies the disk block that is being dumped.

e = Data contained in the specified disk block. Printed in row major order, hexadecimal notation.

4. ACTION TO BE TAKEN

Noncompletion termination reports which provide an error code usually indicate that a system resource was not available or became unavailable to perform the task. Clear the problem causing the resource limitation and retry the input request.

In some instances, other UNIX® RTR error messages may be printed which may provide information pertaining to the failure encountered.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 247.
Formats 2 through 6 have an OMDB key of 246.

Output Appendix
`SYSERR-APP`

Input Message
`DUMP:MHD;BLK`

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . DUMP-MHD,BLK-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has seven formats.

[1] `DUMP MHD` *a* `BLOCK {STARTED | IN PROGRESS}`
`[DATA FOR DISK BLOCK` *d*
e`]`

[2] `DUMP MHD` *a* `BLOCK COMPLETED`

[3] `DUMP MHD` *a* `BLOCK NOT STARTED` *b c*

[4] `DUMP MHD` *a* `BLOCK STOPPED` *b c*

[5] `DUMP MHD` *a* `BLOCK ERROR` *b c*

[6] `DUMP MHD` *a* `BLOCK ABORTED` *b*

[7] `DUMP MHD` *a* `BLOCK ABORTED` *b*
`ERROR DATA` *f g h i j*

2. REASON FOR OUTPUT

To report the status of a request to display the contents of a disk block.

Format 7 provides additional error information when an explicit SCSI command fails. The additional error data is necessary to determine the exact cause of the error condition.

3. VARIABLE FIELD DEFINITIONS

a = Moving head disk (MHD) member number.

b = Process step or reason code.

`f03` — failed to open ECD
`f06` — failed to get UCB by name
`f08` — failed to get UCB of controlling unit
`f0a` — controlling unit is not active
`f12` — failed to reserve UCB
`f15` — failed to assign special device file name
`f18` — failed to open special device file
`f20` — failed to set I/O mode of device file
`f21` — failed to enable message reception
`f22` — starting disk block exceeds disk boundary
`f23` — ending disk block exceeds disk boundary

SEE PROPRIETARY NOTICE ON COVER PAGE

f24 — failed to fopen() output file
f25 — fseek() failed on output file
f27 — lseek() to start block failed
f30 — disk read failed
f33 — process timed out
f36 — failed to close special device file
f39 — failed to release special device file
f42 — failed to unreserve UCB
f45 — failed to close ECD
f48 — terminated externally with signal
f50 — diskinfo() library call failed
f53 — lseek() to "comb" defect table failed
f56 — read of "comb" defect table failed
f60 — failed to get the segment number
f63 — see DKDRV report on the ROP
f69 — SCSI "read capacity" command failed
f70 — message to port failure
f73 — message reception failure

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

d = Identifies the disk block that is being dumped.

e = Data contained in the specified disk block. Printed in row major order, hexadecimal notation.

f = Command completion word. The command completion word is eight hexadecimal digits of the form AAAABBCC.

AAAA = SCSI job block (SJB) completion code. See "Job completion code" under "General Job Information" in DFC Output Appendix K, DFC-APPK.

BB = Status byte. See "Target SCSI status byte" under "SCSI Command Information" in DFC Output Appendix K, DFC-APPK.

CC = Fill. Not used.

g = First word of extended sense data (ESD). See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 0 of ESD.

BB = Byte 1 of ESD.

CC = Byte 2 of ESD.

DD = Byte 3 of ESD.

SEE PROPRIETARY NOTICE ON COVER PAGE

h = Second word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 4 of ESD.

BB = Byte 5 of ESD.

CC = Byte 6 of ESD.

DD = Byte 7 of ESD.

i = Third word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 8 of ESD.

BB = Byte 9 of ESD.

CC = Byte 10 of ESD.

DD = Byte 11 of ESD.

j = Fourth word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 12 of ESD.

BB = Byte 13 of ESD.

CC = Byte 14 of ESD.

DD = Byte 15 of ESD.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

Noncompletion termination reports which provide an error code usually indicate that a system resource was not available or became unavailable to perform the task. Clear the problem causing the resource limitation and retry the input request.

In some instances, other UNIX® RTR error messages may be printed which may provide information pertaining to the failure encountered.

If Format 7 prints, the SCSI disk drive encountered an internal drive error. Retain a copy of the error data, then contact the next level of technical support to aid in determining the cause of the error condition.

5. ALARMS

None. This alarm is a manually-requested report.

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6. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 247.
Formats 2 through 6 have an OMDB key of 246.
Format 7 has an OMDB key of 666.

Output Appendixes

```
DFC-APPJ
DFC-APPK
SYSERR-APP
```

Input Message

```
DUMP:MHD;BLK
```

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . DUMP-MHD,DEF-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has four formats.

[1] `DUMP MHD` *a* `DEFECT TABLE` *b* [*c d*]

[2] `DUMP MHD` *a* `DEFECT TABLE` *b* [*c d*]
`[ COMBINED DEFECT TABLE ]`
`[ CORRUPTED (NO FLAG WORD)]`
`[` *e* `ORIGINAL DEFECTS ]`
`[` *f* `TOTAL DEFECTS ]`
`[` *g* `MAXIMUM DEFECTS ALLOWED ]`
`[ CYL HEAD TYPE FAILS TRIES`
h i j k l]

[3] `DUMP MHD` *a* `DEFECT TABLE` *b* [*c d*]
`[ MANUFACTURER'S DEFECT TABLE ]`
`[` *e* `ORIGINAL DEFECTS ]`
`[ CYL HEAD SECT CYL HEAD SECT`
h i m [*h i m*]]

[4] `DUMP MHD` *a* `DEFECT TABLE` *b* [*c d*]
`[ TEMPORARY DEFECT TABLE ]`
`[ CORRUPTED (NO FLAG WORD)]`
`[` *n* `TEMPORARY DEFECTS ]`
`[ CYL HEAD CYL HEAD CYL HEAD CYL HEAD`
h i [*h i*] [*h i*] [*h i*]]

2. REASON FOR OUTPUT

To report the execution of a `DUMP:MHD;DEFECT` input message. The output data represents defect management information pertaining to the specified moving head disk.

NOTE: `CORRUPTED (NO FLAG WORD)` output message is not due to corruption of data on the disk; rather, this message is used to indicate that an internal flag used in validating the integrity of the temporary defect table is invalid. No action needs to be taken.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status: `COMPLETED`, `NOT STARTED`, `STOPPED`, `ERROR`, or `ABORTED`.

c = Process step or reason code:

- `f03` — failed to open `/tmp` file
- `f04` — failed to open `specfile`
- `f05` — `fseek` failed on the output file
- `f06` — cannot open equipment configuration database (ECD)
- `f09` — cannot get unit control block (UCB) by name
- `f12` — cannot reserve UCB
- `f15` — cannot assign special device filename
- `f18` — cannot open special device file
- `f21` — cannot set I/O mode of device file
- `f24` — cannot enable message reception
- `f27` — see accompanying DKDRV error report on the receive-only printer (ROP)
- `f30` — disk file controller (DFC) is not in S_ACT state
- `f33` — drive size not supported by defect management
- `f36` — MHD size not recognized
- `f39` — `lseek` to mfgr disk address failed
- `f42` — disk read failed
- `f45` — `lseek` to comb disk address failed
- `f48` — first read of combined defect table failed
- `f51` — `lseek` to comb disk address failed
- `f54` — second read of combined defect table failed
- `f57` — msg to port failure
- `f60` — msg reception failure
- `f63` — process timed out
- `f66` — failed to close special device file
- `f69` — failed to release special device file
- `f72` — failed to unreserve UCB
- `f75` — failed to close ECD

d = System error code number. See System Error Codes Output Appendix, `SYSERR-APP`.

e = Number of defects on disk pack as specified by manufacturer's defect table.

f = Total number of defects in combined defect table.

g = Maximum number of defects allowed.

h = Cylinder number of defect.

i = Head number of defect.

j = Type of defect:

- `M` — Manufacturer specified.
- `N` — New; found by DFC.

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k = If *j* is new, number of tests failed.

l = If *j* is new, number of tests run.

m = Sector number of defect.

n = Number of newly-found but not yet tested defects.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 250 and 154.
Format 2 has OMDB keys of 145,251,253, and 256.
Format 3 has OMDB keys of 252,254, and 257.
Format 4 has OMDB keys of 144, 145, 255, and 258.

Output Appendix
`SYSERR-APP`

Input Message
`DUMP:MHD;DEF`

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . DUMP-MHD,DEF-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has three formats.

[1] `DUMP MHD` *a* `DEFECT TABLE` *b* [*c d*]
`[ COMBINED DEFECT TABLE ]`
`[ CORRUPTED (NO FLAG WORD) ]`
`[` *e* `ORIGINAL DEFECTS ]`
`[` *f* `TOTAL DEFECTS ]`
`[` *g* `MAXIMUM DEFECTS ALLOWED ]`
`[ CYL HEAD TYPE FAILS TRIES ]`
`[` *h i j k l* `]`

`[ MANUFACTURER'S DEFECT TABLE ]`
`[` *e* `ORIGINAL DEFECTS ]`
`[ CYL HEAD SECT CYL HEAD SECT ]`
`[` *h i m* `[`*h i m*`]]`

`[ COMBINED (GROWN) DEFECT TABLE ]`
`[` *e* `DEFECTS ]`
`[ CYL HEAD SECT ]`
`[` *h i m* `]`

`[ MANUFACTURER'S (PRIMARY) DEFECT TABLE ]`
`[` *e* `DEFECTS ]`
`[ CYL HEAD SECT ]`
`[` *h i m* `]`

`[ TEMPORARY DEFECT TABLE ]`
`[ TABLE NOT SUPPORTED ]`
`[ CORRUPTED (NO FLAG WORD) ]`
`[` *n* `TEMPORARY DEFECTS ]`
`[ CYL HEAD CYL HEAD CYL HEAD CYL HEAD ]`
`[` *h i* `[`*h i*`] [`*h i*`] [`*h i*`] ]`

[2] `DUMP MHD` *a* `DEFECT TABLE COMPLETED`

[3] DUMP MHD *a* DEFECT TABLE COMPLETED
SCSI DEFECT COUNT CHECK { COMPLETED | ERROR [*c d*] }
[WARNING: NUMBER OF GROWN DEFECTS EXCEEDS THE LUCENT RECOMMENDATION]
[WARNING: TOTAL NUMBER OF DEFECTS EXCEEDS THE LUCENT RECOMMENDATION]
[WARNING: NUMBER OF DEFECTS ON A CYLINDER EXCEEDS THE LUCENT RECOMMENDATION]

2. REASON FOR OUTPUT

To report the result of executing a DUMP:MHD;DEFECT input message, from either the DUMP:MHD;DEFECT command or from the DUMP:DEFECT poke on the DFSA display page. If the command was invoked via the poke, a REPT-DKDIP message will precede the output message line.

The output data represents defect management information pertaining to the specified moving head disk (MHD). For a small computer system interface (SCSI) MHD, the GROWN defect list is output as the COMBINED defect table. Similarly, the PRIMARY defect list is output as the MANUFACTURER'S defect table. SCSI MHDs do not have the TEMPORARY defect table.

NOTE: The CORRUPTED (NO FLAG WORD) output message is not due to corruption of data on the disk; rather, this message is used to indicate that an internal flag used in validating the integrity of the temporary defect table is invalid. No action needs to be taken.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status: STARTED, IN PROGRESS, NOT STARTED, STOPPED, ERROR, or ABORTED.

c = Process step or reason code.

- f03 — failed to fopen() /tmp file
- f05 — fseek() failed on the output file
- f08 — failed to fopen() specfile
- f0b — failed to open ECD
- f0d — failed to get UCB by name
- f10 — failed to reserve UCB
- f21 — failed to assign special device file name
- f23 — failed to open device file
- f25 — failed to set I/O mode of device file
- f28 — failed to enable message reception
- f2b — see DKDRV report on the ROP
- f2f — DFC is not in S_ACT state
- f33 — drive size not supported by defect management
- f36 — MHD size not recognized
- f39 — lseek() to "mfgr" disk address failed
- f40 — DKDIP virtual address translation failure

SEE PROPRIETARY NOTICE ON COVER PAGE

`f42` — read of "mfgr" defect table failed
`f45` — `lseek()` to "combined" disk address failed
`f46` — DKDIP virtual address translation failure
`f48` — first read of "combined" defect table failed
`f50` — DKDIP virtual address translation failure
`f51` — `lseek()` to "combined" disk address failed
`f54` — second read of "combined" defect table failed
`f57` — see DKDRV report on the ROP
`f5a` — read of the SCSI defect header failed
`f5c` — see DKDRV report on the ROP
`f5e` — read of the SCSI defect list failed
`f61` — failed to get the segment number
`f63` — message to port failure
`f65` — message reception failure
`f68` — process timed out
`f6a` — failed to close special device file
`f6c` — failed to release special device file
`f72` — failed to unreserve UCB
`f75` — failed to close ECD
`f78` — terminated externally with signal
`f82` — see DKDRV report on the ROP
`f84` — read of the SCSI defect header failed
`f86` — see DKDRV report on the ROP
`f88` — read of the SCSI defect list failed
`f92` — message to port failure
`f94` — message reception failure
`f96` — failed to get the segment number
`f98` — see DKDRV report on the ROP
`f99` — SCSI "inquiry" command failed
`f9b` — drive not formatted with 512 bytes per logical block
`f9c` — data overflow - too many block descriptors
`f9e` — data overflow - too many block descriptors
`fa2` — failed to get the segment number
`fa4` — see DKDRV report on the ROP
`fa6` — SCSI "read capacity" command failed
`fb2` — failed to get the segment number
`fb4` — see DKDRV report on the ROP
`fb6` — SCSI "mode sense" command failed
`fc2` — failed to get the segment number
`fc4` — see DKDRV report on the ROP
`fc6` — SCSI "mode sense" command failed
`fc9` — `diskinfo()` library call failed
`fcb` — unknown defect limit type
`fce` — unexpected UCB equipage value

d = System error code number. See System Error Codes Output Appendix, `SYSERR-APP`.

e = Number of defects on disk drive up to the recommended limit.

For a SCSI disk drive, the total number of defects in a table could exceed the recommended limit. However, no more than the recommended limit of defects will be displayed.

f = Total number of defects in "combined" defect table.

g = Maximum number of defects allowed. This variable field only applies to SMD disk drives.

h = Cylinder number of defect.

i = Head number of defect.

j = Type of defect:

`M` — Manufacturer specified.
`N` — New; found by DFC.

k = If *j* is new, number of tests failed.

l = If *j* is new, number of tests run.

m = Sector number of defect.

n = Number of newly-found but not yet tested defects.

4. ACTION TO BE TAKEN

Noncompletion termination reports that provide an error code usually indicate a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the input request again.

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

For a SCSI disk drive, the completion message may also include warnings as a result of checking the media defect count of the disk against the following.

The number of `GROWN` defects should be no more than a recommended limit over the useful life of the disk. If the recommended limit is exceeded, the disk drive could become unreliable.

The total number of defects (`PRIMARY` and `GROWN` defects) should not exceed the Lucent Technologies specification for the disk drive. If the disk has more than the number of defects allowed, the disk drive could become unreliable.

The total number of defects (`PRIMARY` and `GROWN` defects) on a cylinder should not exceed the recommended limit. If the number of defects on a cylinder is larger than the limit, the performance of the disk drive may degrade to the point that the disk drive may not be able to be used as a boot device in the system.

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Lucent Technologies recommends that the SCSI disk drive should be replaced if there is any warning output related to the above recommendations.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1 and 2 have OMDB keys of 144, 145, 250, 251, 252, and 573.
Format 3 has an OMDB key of 612.

Output Appendix
`SYSERR-APP`

Input Messages
`DUMP:MHD;DEF`

Output Message
`REPT-DKDIP`

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . DUMP-MHD,DEF-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 - R21.21
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has five formats.

[1]
```
DUMP MHD a DEFECT TABLE b [c d]
[ COMBINED DEFECT TABLE        ]
[ CORRUPTED (NO FLAG WORD)  ]
[ e ORIGINAL DEFECTS           ]
[ f TOTAL DEFECTS              ]
[ g MAXIMUM DEFECTS ALLOWED    ]
[ CYL  HEAD TYPE  FAILS TRIES ]
[ h  i  j   k   l ]

[ MANUFACTURER'S DEFECT TABLE ]
[ e ORIGINAL DEFECTS           ]
[ CYL  HEAD  SECT  CYL  HEAD  SECT ]
[ h  i  m  [h  i  m ] ]

[ COMBINED (GROWN) DEFECT TABLE ]
[ e DEFECTS        ]
[ CYL  HEAD  SECT ]
[ h  i  m ]

[ MANUFACTURER'S (PRIMARY) DEFECT TABLE ]
[ e DEFECTS        ]
[ CYL  HEAD  SECT ]
[ h  i  m ]
```

[2]
```
DUMP MHD a DEFECT TABLE COMPLETED
```

[3]
```
DUMP MHD a DEFECT TABLE COMPLETED
 SCSI DEFECT COUNT CHECK { COMPLETED | ERROR [b c] }
[ WARNING: NUMBER OF GROWN DEFECTS EXCEEDS THE AT&T
 RECOMMENDATION ]
[ WARNING: TOTAL NUMBER OF DEFECTS EXCEEDS THE AT&T
 RECOMMENDATION ]
[ WARNING: NUMBER OF DEFECTS ON A CYLINDER EXCEEDS THE
 AT&T RECOMMENDATION ]
```

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[4] `DUMP MHD` *a* `DEFECT TABLE ABORTED` *c*
`ERROR DATA` *o p q r s*

[5] `DUMP MHD` *a* `DEFECT TABLE COMPLETED`
`SCSI DEFECT COUNT CHECK ABORTED` *c*
`ERROR DATA` *o p q r s*

2. REASON FOR OUTPUT

To report the results of executing a `DUMP:MHD;DEFECT` input message, from either the `DUMP:MHD;DEFECT` command or from the `DUMP:DEFECT` poke on the DFSA display page. If the command was invoked via the poke, a `REPT-DKDIP` message will precede the output message.

The output data represents defect management information pertaining to the specified moving head disk (MHD). For a small computer system interface (SCSI) MHD, the `GROWN` defect list is output as the `COMBINED` defect table. Similarly, the `PRIMARY` defect list is output as the `MANUFACTURER'S` defect table.

Formats 4 and 5 provide additional error information when an explicit SCSI command fails. The additional error data is necessary to determine the exact cause of the error condition.

3. VARIABLE FIELD DEFINITIONS

a = MHD member number.

b = Message status: `STARTED`, `IN PROGRESS`, `NOT STARTED`, `STOPPED`, `ERROR`, or `ABORTED`.

c = Process step or reason code.

`f03` — failed to `fopen() /tmp` file
`f05` — `fseek()` failed on the output file
`f08` — failed to `fopen()` specfile
`f0b` — failed to open the ECD
`f0d` — failed to get UCB by name
`f0e` — failed to get top UCB
`f0f` — top UCB is not a DFC
`f10` — failed to get UCB of controlling unit
`f11` — controlling unit is not active
`f12` — unknown DFC type
`f13` — MHD size not recognized
`f14` — drive size not supported by defect management
`f16` — failed to reserve the UCB
`f21` — failed to assign special device file name
`f23` — failed to open device file
`f25` — failed to set I/O mode of device file
`f28` — failed to enable message reception
`f39` — `lseek()` to "mfgr" disk address failed
`f40` — DKDIP virtual address translation failure
`f42` — read of the "mfgr" defect table failed

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`f45` — `lseek()` to "comb" disk address failed
`f46` — DKDIP virtual address translation failure
`f48` — first read of "comb" defect table failed
`f50` — DKDIP virtual address translation failure
`f51` — `lseek()` to "comb" disk address failed
`f54` — second read of the "comb" defect table failed
`f57` — see DKDRV report on the ROP
`f5a` — read of the SCSI defect list header failed
`f5c` — see DKDRV report on the ROP
`f5e` — read of the SCSI defect list failed
`f61` — failed to get the segment number
`f63` — message to port failure
`f65` — message reception failure
`f68` — process timed out
`f6a` — failed to close special device file
`f6c` — failed to release special device file
`f72` — failed to unreserve UCB
`f75` — failed to close ECD
`f78` — terminated externally with signal
`f82` — see DKDRV report on the ROP
`f84` — read of the SCSI defect list header failed
`f86` — see DKDRV report on the ROP
`f88` — read of the SCSI defect list failed
`f92` — message to port failure
`f93` — process timed out
`f94` — message reception failure
`f96` — failed to get the segment number
`f98` — see DKDRV report on the ROP
`f99` — SCSI "inquiry" command failed
`f9a` — SCSI "inquiry" command data underflow
`f9b` — drive not formatted with 512 bytes per logical block
`f9c` — data overflow - too many block descriptors
`f9e` — data overflow - too many block descriptors
`fa2` — failed to get the segment number
`fa4` — see DKDRV report on the ROP
`fa6` — SCSI "read capacity" command failed
`fb2` — failed to get the segment number
`fb4` — see DKDRV report on the ROP
`fb6` — SCSI "mode sense" command failed
`fc2` — failed to get the segment number
`fc4` — see DKDRV report on the ROP
`fc6` — SCSI "mode sense" command failed
`fc9` — `diskinfo()` library call failed
`fcb` — unknown defect limit type
`fce` — unexpected UCB equipage value
`ffe` — aborted due to phase 1

SEE PROPRIETARY NOTICE ON COVER PAGE

d = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

e = Number of defects on the disk drive up to the recommended limit.

For a SCSI disk drive, the total number of defects in the table could exceed the recommended limit. However, no more than the recommended limit of defects will be displayed.

f = Total number of defects in "combined" defect table.

g = Maximum number of defects allowed. This variable field only applies for SMD disk drives.

h = Cylinder number of defect.

i = Head number of defect.

j = Type of defect:

M — Manufacturer specified.
N — New; found by DFC.

k = If *j* is new, number of tests failed.

l = If *j* is new, number of tests run.

m = Sector number of defect.

n = Number of newly-found but not yet tested defects.

o = Command completion word. The command completion word is eight hexadecimal digits of the form AAAABBCC.

AAAA = SCSI job block (SJB) completion code. See "Job completion code" under "General Job Information" in DFC Output Appendix K, DFC-APPK.

BB = Status byte. See "Target SCSI status byte" under "SCSI Command Information" in DFC Output Appendix K, DFC-APPK.

CC = Fill. Not used.

p = First word of extended sense data (ESD). See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 0 of ESD.

BB = Byte 1 of ESD.

CC = Byte 2 of ESD.

DD = Byte 3 of ESD.

SEE PROPRIETARY NOTICE ON COVER PAGE

q = Second word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

- AA = Byte 4 of ESD.
- BB = Byte 5 of ESD.
- CC = Byte 6 of ESD.
- DD = Byte 7 of ESD.

r = Third word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

- AA = Byte 8 of ESD.
- BB = Byte 9 of ESD.
- CC = Byte 10 of ESD.
- DD = Byte 11 of ESD.

s = Fourth word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

- AA = Byte 12 of ESD.
- BB = Byte 13 of ESD.
- CC = Byte 14 of ESD.
- DD = Byte 15 of ESD.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

Noncompletion termination reports that provide an error code usually indicate a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and input the request again.

For a SCSI disk drive, the completion message may also include warnings as a result of checking the media defect count of the disk against the following.

The number of GROWN defects on a disk drive should not exceed the recommended limit over the useful life of the disk. If the recommended limit is exceeded, the disk drive could become unreliable.

The total number of defects (PRIMARY and GROWN) on a disk drive should not exceed the recommended limit. If the recommended limit is exceeded, the disk drive could become unreliable.

The total number of defects (PRIMARY and GROWN) on a cylinder should not exceed the recommended limit. If the recommended limit is exceeded, the performance of the disk drive may degrade to the point that the disk drive may not be able to be used as a boot device in the system.

Lucent Technologies recommends that the SCSI disk drive should be replaced if there is any warning output related to the above recommendations.

If Formats 4 and 5 print, the SCSI disk drive encountered an internal drive error. Retain a copy of the error data, then contact the next level of technical support to aid in determining the cause of the error condition.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1 and 2 have OMDB keys of 144, 145, 250, 251, 252, and 573.
Format 3 has an OMDB key of 612.
Format 4 has an OMDB key of 666.
Format 5 has an OMDB key of 665.

Output Appendixes
DFC-APPJ
DFC-APPK
SYSERR-APP

Input Messages
DUMP:MHD;DEF

Output Message
REPT-DKDIP

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . DUMP-MHD,DEF-D
GENERIC . . . . . UNIX RTR R21.23 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has five formats.

[1] `DUMP MHD` *a* `DEFECT TABLE` *b* [*c d*]
`[ COMBINED DEFECT TABLE ]`
`[ CORRUPTED (NO FLAG WORD) ]`
`[` *e* `ORIGINAL DEFECTS ]`
`[` *f* `TOTAL DEFECTS ]`
`[` *g* `MAXIMUM DEFECTS ALLOWED ]`
`[ CYL HEAD TYPE FAILS TRIES ]`
`[` *h i j k l* `]`

`[ MANUFACTURER'S DEFECT TABLE ]`
`[` *e* `ORIGINAL DEFECTS ]`
`[ CYL HEAD SECT CYL HEAD SECT ]`
`[` *h i m* `[`*h i m*`]]`

`[ COMBINED (GROWN) DEFECT TABLE ]`
`[` *e* `DEFECTS ]`
`[ CYL HEAD SECT ]`
`[` *h i m* `]`

`[ MANUFACTURER'S (PRIMARY) DEFECT TABLE ]`
`[` *e* `DEFECTS ]`
`[ CYL HEAD SECT ]`
`[` *h i m* `]`

[2] `DUMP MHD` *a* `DEFECT TABLE COMPLETED`

[3] `DUMP MHD` *a* `DEFECT TABLE COMPLETED`
`SCSI DEFECT COUNT CHECK { COMPLETED | ERROR [`*b c*`] }`
`[ WARNING: NUMBER OF GROWN DEFECTS EXCEEDS THE RECOMMENDATION ]`
`[ WARNING: TOTAL NUMBER OF DEFECTS EXCEEDS THE RECOMMENDATION ]`
`[ WARNING: NUMBER OF DEFECTS ON A CYLINDER EXCEEDS THE RECOMMENDATION ]`

[4] `DUMP MHD` *a* `DEFECT TABLE ABORTED` *c*
`ERROR DATA` *o p q r s*

[5] `DUMP MHD` *a* `DEFECT TABLE COMPLETED`
`SCSI DEFECT COUNT CHECK ABORTED` *c*
`ERROR DATA` *o p q r s*

2. REASON FOR OUTPUT

To report the results of executing a `DUMP:MHD;DEFECT` input message, from either the `DUMP:MHD;DEFECT` command or from the `DUMP:DEFECT` poke on the DFSA display page. If the command was invoked via the poke, a `REPT-DKDIP` message will precede the output message.

The output data represents defect management information pertaining to the specified moving head disk (MHD). For a small computer system interface (SCSI) MHD, the `GROWN` defect list is output as the `COMBINED` defect table. Similarly, the `PRIMARY` defect list is output as the `MANUFACTURER'S` defect table.

Formats 4 and 5 provide additional error information when an explicit SCSI command fails. The additional error data is necessary to determine the exact cause of the error condition.

3. VARIABLE FIELD DEFINITIONS

a = MHD member number.

b = Message status: `STARTED`, `IN PROGRESS`, `NOT STARTED`, `STOPPED`, `ERROR`, or `ABORTED`.

c = Process step or reason code.

`f03` — failed to `fopen() /tmp` file
`f05` — `fseek()` failed on the output file
`f08` — failed to `fopen()` specfile
`f0b` — failed to open the ECD
`f0d` — failed to get UCB by name
`f0e` — failed to get top UCB
`f0f` — top UCB is not a DFC
`f10` — failed to get UCB of controlling unit
`f11` — controlling unit is not active
`f12` — unknown DFC type
`f13` — MHD size not recognized
`f14` — drive size not supported by defect management
`f16` — failed to reserve the UCB
`f21` — failed to assign special device file name
`f23` — failed to open device file
`f25` — failed to set I/O mode of device file
`f28` — failed to enable message reception
`f39` — `lseek()` to "mfgr" disk address failed
`f40` — DKDIP virtual address translation failure
`f42` — read of the "mfgr" defect table failed

SEE PROPRIETARY NOTICE ON COVER PAGE

`f45` — `lseek()` to "comb" disk address failed
`f46` — DKDIP virtual address translation failure
`f48` — first read of "comb" defect table failed
`f50` — DKDIP virtual address translation failure
`f51` — `lseek()` to "comb" disk address failed
`f54` — second read of the "comb" defect table failed
`f57` — see DKDRV report on the ROP
`f5a` — read of the SCSI defect list header failed
`f5c` — see DKDRV report on the ROP
`f5e` — read of the SCSI defect list failed
`f61` — failed to get the segment number
`f63` — message to port failure
`f65` — message reception failure
`f68` — process timed out
`f6a` — failed to close special device file
`f6c` — failed to release special device file
`f72` — failed to unreserve UCB
`f75` — failed to close ECD
`f78` — terminated externally with signal
`f82` — see DKDRV report on the ROP
`f84` — read of the SCSI defect list header failed
`f86` — see DKDRV report on the ROP
`f88` — read of the SCSI defect list failed
`f92` — message to port failure
`f93` — process timed out
`f94` — message reception failure
`f96` — failed to get the segment number
`f98` — see DKDRV report on the ROP
`f99` — SCSI "inquiry" command failed
`f9a` — SCSI "inquiry" command data underflow
`f9b` — drive not formatted with 512 bytes per logical block
`f9c` — data overflow - too many block descriptors
`f9e` — data overflow - too many block descriptors
`fa2` — failed to get the segment number
`fa4` — see DKDRV report on the ROP
`fa6` — SCSI "read capacity" command failed
`fb2` — failed to get the segment number
`fb4` — see DKDRV report on the ROP
`fb6` — SCSI "mode sense" command failed
`fc2` — failed to get the segment number
`fc4` — see DKDRV report on the ROP
`fc6` — SCSI "mode sense" command failed
`fc9` — `diskinfo()` library call failed
`fcb` — unknown defect limit type
`fce` — unexpected UCB equipage value
`ffe` — aborted due to phase 1

d = System error code number. See System Error Codes Output Appendix, `SYSERR-APP`.

e = Number of defects on the disk drive up to the recommended limit.

For a SCSI disk drive, the total number of defects in the table could exceed the recommended limit. However, no more than the recommended limit of defects will be displayed.

f = Total number of defects in "combined" defect table.

g = Maximum number of defects allowed. This variable field only applies for SMD disk drives.

h = Cylinder number of defect.

i = Head number of defect.

j = Type of defect:

M — Manufacturer specified.
N — New; found by DFC.

k = If *j* is new, number of tests failed.

l = If *j* is new, number of tests run.

m = Sector number of defect.

n = Number of newly-found but not yet tested defects.

o = Command completion word. The command completion word is eight hexadecimal digits of the form AAAABBCC.

AAAA = SCSI job block (SJB) completion code. See "Job completion code" under "General Job Information" in DFC Output Appendix K, DFC-APPK.

BB = Status byte. See "Target SCSI status byte" under "SCSI Command Information" in DFC Output Appendix K, DFC-APPK.

CC = Fill. Not used.

p = First word of extended sense data (ESD). See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 0 of ESD.

BB = Byte 1 of ESD.

CC = Byte 2 of ESD.

DD = Byte 3 of ESD.

SEE PROPRIETARY NOTICE ON COVER PAGE

q = Second word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

- AA = Byte 4 of ESD.
- BB = Byte 5 of ESD.
- CC = Byte 6 of ESD.
- DD = Byte 7 of ESD.

r = Third word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

- AA = Byte 8 of ESD.
- BB = Byte 9 of ESD.
- CC = Byte 10 of ESD.
- DD = Byte 11 of ESD.

s = Fourth word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

- AA = Byte 12 of ESD.
- BB = Byte 13 of ESD.
- CC = Byte 14 of ESD.
- DD = Byte 15 of ESD.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

Noncompletion termination reports that provide an error code usually indicate a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and input the request again.

For a SCSI disk drive, the completion message may also include warnings as a result of checking the media defect count of the disk against the following.

The number of GROWN defects on a disk drive should not exceed the recommended limit over the useful life of the disk. If the recommended limit is exceeded, the disk drive could become unreliable.

The total number of defects (PRIMARY and GROWN) on a disk drive should not exceed the recommended limit. If the recommended limit is exceeded, the disk drive could become unreliable.

SEE PROPRIETARY NOTICE ON COVER PAGE

The total number of defects (PRIMARY and GROWN) on a cylinder should not exceed the recommended limit. If the recommended limit is exceeded, the performance of the disk drive may degrade to the point that the disk drive may not be able to be used as a boot device in the system.

Lucent Technologies recommends that the SCSI disk drive should be replaced if there is any warning output related to the above recommendations.

If Formats 4 and 5 print, the SCSI disk drive encountered an internal drive error. Retain a copy of the error data, then contact the next level of technical support to aid in determining the cause of the error condition.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1 and 2 have OMDB keys of 144, 145, 250, 251, 252, and 573.
Format 3 has an OMDB key of 612.
Format 4 has an OMDB key of 666.
Format 5 has an OMDB key of 665.

Output Appendixes
DFC-APPJ
DFC-APPK
SYSERR-APP

Input Messages
DUMP:MHD;DEF

Output Message
REPT-DKDIP

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . DUMP-MHD,VTO-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This messages has eight formats.

[1] `DUMP MHD` *a* `VTOC STARTED`

[2] `DUMP MHD` *a* `VTOC IN PROGRESS`

[3] `DUMP MHD` *a* `VTOC COMPLETED`

[4] `DUMP MHD` *a* `VTOC NOT STARTED` *b c*

[5] `DUMP MHD` *a* `VTOC STOPPED` *b c*

[6] `DUMP MHD` *a* `VTOC ERROR` *b c*

[7] `DUMP MHD` *a* `VTOC ABORTED` *b*

[8] `DUMP MHD` *a* `VTOC SEGMENT` *d* `OF` *e*
`[PTN START END SIZE DESCRIPTION`
f g h i j [+*k*]]

2. REASON FOR OUTPUT

To report the result of executing a `DUMP:MHD` input message with the volume table of contents (VTOC) option. The output data represents the information that is in the `VTOC` of the specified moving head disk (MHD).

3. VARIABLE FIELD DEFINITIONS

a = MHD member number.

b = Process step or reason code. One of the following:

`f03` — cannot open ECD
`f06` — cannot get UCB by name
`f09` — cannot reserve UCB
`f12` — cannot assign special device file name
`f15` — cannot open special device file
`f18` — cannot set I/O mode of the device
`f24` — disk read failed
`f27` — process timed out
`f28` — too many partitions in the disk VTOC
`f29` — no VTOC partition found in disk VTOC
`f30` — failed to close special device file
`f33` — failed to release special device file

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`f36` — failed to unreserve UCB
`f39` — failed to close ECD
`f42` — terminated externally with signal

c = System error code number. See System Error Code Output Appendix, `SYSERR-APP`.

d = Segment number (32 partitions per segment).

e = Total number of segments.

f = Disk logical partition number.

g = Starting disk block number of the indicated partition.

h = Ending (inclusive) disk block number of the indicated partition.

i = Size, in 512-byte blocks, of the indicated partition.

j = Describes the partition. Unresolved values are printed in hexadecimal and indicate whether the partition is a UNIX® RTR-defined value or an application-defined value.

k = Indicates the modifier(s) applied to the specific partition definition.

4. ACTION TO BE TAKEN

Noncompletion termination reports which provide an error code usually indicate that a system resource was not available or became unavailable to perform the task. Clear the resource limitation problem and input the request again.

In some instances, other UNIX® RTR error messages may be printed which may provide information about the failure.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1 through 7 have an OMDB key of 248.
Format 8 has an OMDB key of 249.

Output Appendix
`SYSERR-APP`

Input Message
`DUMP:MHD;VTO`

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . DUMP-MHD,VTO-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This messages has eight formats.

[1] `DUMP MHD` *a* `VTOC STARTED`

[2] `DUMP MHD` *a* `VTOC IN PROGRESS`

[3] `DUMP MHD` *a* `VTOC COMPLETED`

[4] `DUMP MHD` *a* `VTOC NOT STARTED` *b c*

[5] `DUMP MHD` *a* `VTOC STOPPED` *b c*

[6] `DUMP MHD` *a* `VTOC ERROR` *b c*

[7] `DUMP MHD` *a* `VTOC ABORTED` *b*

[8] `DUMP MHD` *a* `VTOC SEGMENT` *d* `OF` *e*
`[PTN START END SIZE DESCRIPTION`
f g h i j [+*k*]]

2. REASON FOR OUTPUT

To report the result of executing a `DUMP:MHD` input message with the volume table of contents (VTOC) option. The output data represents information that is in the `VTOC` of the specified moving head disk (MHD).

3. VARIABLE FIELD DEFINITIONS

a = MHD member number.

b = Process step or reason code. One of the following:

`f03` — failed to open ECD
`f06` — failed to get UCB by name
`f09` — failed to reserve UCB
`f12` — failed to assign special device file name
`f15` — failed to open special device file
`f18` — failed to set I/O mode of device file
`f24` — disk read failed
`f28` — too many partitions in VTOC
`f29` — no VTOC partition found, VTOC invalid
`f30` — process timed out
`f31` — failed to close special device file
`f33` — failed to release special device file

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`f36` — failed to unreserve UCB
`f39` — failed to close ECD
`f42` — terminated externally with signal

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

d = Segment number (32 partitions per segment).

e = Total number of segments.

f = Disk logical partition number.

g = Starting disk block number of the indicated partition.

h = Ending (inclusive) disk block number of the indicated partition.

i = Size, in 512-byte blocks, of the indicated partition.

j = Describes the partition. Unresolved values are printed in hexadecimal and indicate whether the partition is a UNIX® RTR-defined value or an application-defined value.

k = Indicates the modifier(s) applied to the specific partition definition.

4. ACTION TO BE TAKEN

Noncompletion termination reports that provide an error code usually indicate that a system resource was not available or became unavailable to perform the task. Clear the resource limitation problem and input the request again.

In some instances, other UNIX® RTR error messages may be printed to provide information about the failure.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1 through 7 have an OMDB key of 248.
Format 8 has an OMDB key of 249.

Output Appendix
SYSERR-APP

Input Message
`DUMP:MHD;VTO`

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . DUMP-MHD,VTO-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This messages has eight formats.

[1] `DUMP MHD` *a* `VTOC STARTED`

[2] `DUMP MHD` *a* `VTOC IN PROGRESS`

[3] `DUMP MHD` *a* `VTOC COMPLETED`

[4] `DUMP MHD` *a* `VTOC NOT STARTED` *b c*

[5] `DUMP MHD` *a* `VTOC STOPPED` *b c*

[6] `DUMP MHD` *a* `VTOC ERROR` *b c*

[7] `DUMP MHD` *a* `VTOC ABORTED` *b*

[8] `DUMP MHD` *a* `VTOC SEGMENT` *d* `OF` *e*
`[PTN START END SIZE DESCRIPTION`
f g h i j [+*k*]]

2. REASON FOR OUTPUT

To report the status of a request, executing a `DUMP:MHD` input message, to display the volume table of contents (VTOC) on a moving head disk (MHD). The output data represents information that is in the `VTOC` of the specified MHD.

3. VARIABLE FIELD DEFINITIONS

a = MHD member number.

b = Process step or reason code.

`f03` — failed to open ECD
`f06` — failed to get UCB by name
`f07` — failed to get UCB of controlling unit
`f08` — controlling unit is not active
`f09` — failed to reserve UCB
`f12` — failed to assign special device file name
`f15` — failed to open special device file
`f18` — failed to set I/O mode of device file
`f24` — disk read failed
`f28` — too many partitions in VTOC
`f29` — no VTOC partition found - VTOC invalid

SEE PROPRIETARY NOTICE ON COVER PAGE

`f30` — process timed out
`f31` — failed to close special device file
`f33` — failed to release special device file
`f36` — failed to unreserve UCB
`f39` — failed to close ECD
`f42` — terminated externally with signal

c = System error code number. See System Error Codes Output Appendix, `SYSERR-APP`.

d = Segment number (32 partitions per segment).

e = Total number of segments.

f = Disk logical partition number.

g = Starting disk block number of the indicated partition.

h = Ending (inclusive) disk block number of the indicated partition, or `NA` (not applicable) for the diagnostic partition.

i = Size, in 512-byte blocks, of the indicated partition, or `NA` for the diagnostic partition.

j = Describes the partition. Unresolved values are printed in hexadecimal and indicate whether the partition is a UNIX® RTR-defined value or an application-defined value.

k = Indicates the modifier(s) applied to the specific partition definition.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

Noncompletion termination reports that provide an error code usually indicate that a system resource was not available or became unavailable to perform the task. Clear the resource limitation problem and input the request again.

In some instances, other UNIX® RTR error messages may be printed that may provide information about the failure.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1 through 7 have an OMDB key of 248.
Format 8 has an OMDB key of 249.

Output Appendix
SYSERR-APP

Input Message
DUMP:MHD;VTO

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . DUMP-PID
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `DUMP PID` *a* `ADDR` *b* `[OFF` *c*`] COMPLETED` *#g*
`ADDRESS (HEX): CONTENTS OF MEMORY (HEX):`
d *e*

[2] `DUMP PID` *a* `ADDR` *b* `[OFF` *c*`]` *f #g*

2. REASON FOR OUTPUT

To report the result of executing the `DUMP:PID` input message to dump out the contents of an address or address range in main memory.

3. VARIABLE FIELD DEFINITIONS

a = Process ID of the target process.

b = Virtual address specified in input message.

c = Offset(s) used on input command line.

d = Address label for line of data.

e = Data as dumped from memory.

f = Termination status:

`NOT STARTED NGPID` — The `DUMP` was stopped because the specified process does not exist.

`STOPPED NGADDR` — The `DUMP` was stopped because the address specified is not valid for the process; or invalid address values were encountered in the address chain, if offsets were specified.

g = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If *f* is `NOT STARTED NGPID`, the process did not exist at the time the `DUMP` was attempted. If this happens repeatedly with the process IDs used because the process has a short lifetime, consider using the process utility identification (UID) instead of process identification (PID).

SEE PROPRIETARY NOTICE ON COVER PAGE

If *f* is `STOPPED NGADDR`, recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the `DUMP` message in the action list.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 494 and 514.

Input Messages

```
DUMP:ADDR
DUMP:PID
DUMP:UID
OP:ST;PROC
WHEN:PID
WHEN:UID
```

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . DUMP-PMEM
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `DUMP PMEM` *a* `COMPLETED` *#d*
`ADDRESS (HEX): CONTENTS OF MEMORY (HEX):`
b *c*

[2] `DUMP PMEM` *a* `STOPPED NGADDR` *#d*

2. REASON FOR OUTPUT

To report the result of executing the `DUMP:PMEM` input message to dump out the contents of a physical address or address range in main memory.

Format 2 indicates the specified address is not valid.

3. VARIABLE FIELD DEFINITIONS

a = Physical address specified in input message.

b = Address label for line of data.

c = Data as dumped from memory.

d = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If Format 2 is printed, verify that the desired address is correct.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 494 and 514.

Input Message
`DUMP:PMEM`

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . DUMP-REG
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `DUMP REG` *a* `COMPLETED` *#g*
`REGISTER: CONTENTS:`
b *c*

[2] `DUMP REG` *a* `OFF` *d* `COMPLETED` *#g*
`ADDRESS (HEX): CONTENTS OF MEMORY (HEX):`
e *f*

[3] `DUMP REG` *a* `OFF` *d* `STOPPED NGADDR` *#g*

2. REASON FOR OUTPUT

To report the result of executing a `DUMP:REG` input message to dump the contents of a register or area of main memory.

Format 3 indicates an error was encountered in the indirection addressing chain.

3. VARIABLE FIELD DEFINITIONS

a = Name of register to be dumped.

b = Name of register for line of data.

c = Data dumped from register.

d = Offset(s) used in input command line.

e = Address label for line of data.

f = Data dumped from memory.

g = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If Format 3 is printed, recheck the program listings. Try printing the register contents and break the indirection chain into several parts, printing the intermediate results.

5. ALARMS

None. This alarm is a manually-requested report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Key
Format 1 has an OMDB key of 510.

Input Message
`DUMP:REG`

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . DUMP-UID
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `DUMP UID` *a* `ADDR` *b* `[OFF` *c*`] COMPLETED #`*g*
`ADDRESS (HEX): CONTENTS OF MEMORY (HEX):`
d *e*

[2] `DUMP UID` *a* `ADDR` *b* `[OFF`*c*`]` *f* *#g*

2. REASON FOR OUTPUT

To report the result of executing the `DUMP:UID` input message to dump out the contents of an address or address range in main memory.

3. VARIABLE FIELD DEFINITIONS

a = Utility ID of the target process.

b = Virtual address specified in input message.

c = Offset(s) used on input command line.

d = Address label for line of data.

e = Data as dumped from memory.

f = Termination status:

`NOT STARTED NGUID` — The `DUMP` was stopped because no copies of the specified process exist.

`STOPPED NGADDR` — The `DUMP` was stopped because the address specified is not valid for the process, or invalid address values were encountered in address chain, if offsets were specified.

g = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If *f* is `NOT STARTED NGUID`, the process did not exist at the time the `DUMP` was attempted. If this happens repeatedly, a breakpoint could be defined and enabled for the process while no copies of the process exist. At the time a copy is created, the breakpoint would be planted in the enabled state.

SEE PROPRIETARY NOTICE ON COVER PAGE

If *f* is `STOPPED NGADDR`, recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the `DUMP:UID` message in the action list.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Format 1 has an OMDB key of 514.

Input Messages
`DUMP:UID`
`WHEN:UID`

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . DUMP-UVAR
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `DUMP UVAR` *a* `COMPLETED` *#g*
`UVAR: CONTENTS:`
b *c*

[2] `DUMP UVAR` *a* `OFF` *d* `COMPLETED` *#g*
`ADDRESS (HEX): CONTENTS OF MEMORY (HEX):`
e *f*

[3] `DUMP UVAR` *a* `STOPPED NGADDR` *#g*

2. REASON FOR OUTPUT

To report the disposition of a `DUMP:UVAR` input message.

Format 3 indicates an error was encountered in the indirection addressing chain.

3. VARIABLE FIELD DEFINITIONS

a = Utility variable to be dumped.

b = Name of utility variable for line of data.

c = Data as dumped from utility variable.

d = Offset(s) used on input command line.

e = Address label for line of data.

f = Data dumped from memory.

g = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If Format 3 is printed, recheck the program listings. Try printing the utility variable contents and breaking the addressing chain into several parts, printing the intermediate results.

5. ALARMS

None. This alarm is a manually-requested report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Key
Format 1 has an OMDB key of 511.

Input Message
`DUMP:UVAR`

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . EX-CU
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `EX CU` *a* [*b*] [`COMPLETED`] *d* [(*e*)]
{`MESSAGE`|`MSG`} {`IN PROGRESS`|`COMPLETE`}

[2] `EX CU` *a* [*b*] `PH` *c d* [(*e*)]
{`MESSAGE IN PROGRESS`|`MSG IP`}

[3] `EX CU` *a* [*b*] `PH` *c* `STF` (*e*) `MSG IP`
`TEST MISMATCH ACTUAL MASK EXPECTED`
f g h i j

[4] `EX CU` *a* [*b*] `ABORTED AT PH` *c* `STMNT` *k d* [(*e*)] `MSG IP`

[5] `EX CU` *a* [*b*] `TERMINATED AT PH` *c* `STMNT` *k* `AFTER TEST` *l*

[6] `EX CU` *a* [*b*] `TASK` *m*
{`MESSAGE STARTED`|`QUEUED`|`ABORTED`}

2. REASON FOR OUTPUT

To report the result of executing an `EX:CU` input message to diagnose the control unit (CU) or one of its subunits in the interactive mode.

Format 1 specifies the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a = Member number (0 or 1).

b = Unit type and member number of the subunit under the CU which has been diagnosed; for example, CC 0, MASC 0, MASC 1, SAT 0, etc.

c = Phase number.

d = The result of the diagnostic.

- ATP — All tests pass.
- CATP — All tests run were ATP; some were not executed due to the unavailability of a system resource needed to perform the test.
- NTR — No tests were run.
- STF — Some tests fail.

e = If *d* = CATP or NTR, *e* identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, if *e* = (00000000 00000018), tests were skipped for reasons 3 and 4.

If *d* = STF, *e* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *e* = (7 00000000 00000018), seven tests failed, plus tests were skipped for reasons 3 and 4. The reasons are as follows:

- Bit 0 — Unused.
- Bit 1 — Unit under test is forced on-line.
- Bit 2 — Sanity timers are disabled.
- Bit 3 — Emergency action interface (EAI) forces on CU, disk, sanity timer are active.
- Bit 4 — Peripheral unit controller is out of service.
- Bit 5 — Helper unit not specified or invalid.
- Bit 6 — Helper unit unavailable.
- Bit 7 — Unit under test is forced off-line.
- Bit 8 — EAI initialization parameter buffer data pending; EAI must be cleared.
- Bit 9 — Helper unit not connected to sub-unit under test.
- Bits 10 — 63 - Unused.

f = Test number of the failing test.

g = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

h = The bits which were actually received from the hardware device.

i = Determines which bits in *h* are included in this test.

SEE PROPRIETARY NOTICE ON COVER PAGE

j = The value which the test expected.

NOTE: For Format 3 the values for *h, i* and *j* may be set to N/A. This means that this data is not available for the specified device.

k = Last statement successfully executed before the diagnostic terminated.

l = Current test number when diagnostic terminated.

m = Task number assigned to the request.

4. ACTION TO BE TAKEN

If *d* = CATP, the needed system resource should be made available if possible, so that all tests may be executed. If *d* = STF, the unit should be repaired as quickly as possible. See the *Corrective Maintenance* manual for repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110 and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Messages
```
EX:CU
STOP:DMQ
STP:DMQ
```

Output Message
```
DGN-CU
```

Practice 235-105-220 *Corrective Maintenance Procedures*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . EX-DCI
GENERIC . . . . . UNIX RTR R21.3, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `EX DCI` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `EX DCI` *a* `PH` *d b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `EX DCI` *a* `PH` *d* `STF (`*c*`)  MSG IP`
`TEST  MISMATCH  ACTUAL  MASK  EXPECTED`
e f g h i

[4] `EX DCI` *a* `ABORTED AT PH` *d* `STMNT` *j b* `[(`*c*`)]  MSG IP`

[5] `EX DCI` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `EX DCI` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print the results of a diagnostic run on the dual serial channel/computer interconnect (DCI) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

ATP — All tests passed.
CATP — All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.
NTR — No tests were executed.
STF — Some tests failed.

c = If *b* = CATP or NTR, *c* identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, if *c* = (00000000 00000018), tests were skipped for reasons 3 and 4.

If *b* = STF, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 00000006), seven tests failed, plus tests were skipped for reasons 1 and 2. The reasons are as follows:

Bits 0 - 63 — Unused.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines which bits in *g* are included in this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h* and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If *b* = CATP, the needed system resource should be made available if possible, so that all tests may be executed. If *b* = STF, the unit should be repaired as quickly as possible. See Practice 235-105-220 for the repair procedures.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Messages
`EX:DCI`
`STOP:DMQ`
`STP:DMQ`

Output Message
`DGN-DCI`

Practice 235-105-220 *Corrective Maintenance Procedures*

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ID . . . . . EX-DFC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `EX DFC` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `EX DFC` *a* `PH` *d b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `EX DFC` *a* `PH` *d* `STF (`*c*`)  MSG IP`
`TEST  MISMATCH  ACTUAL  MASK  EXPECTED`
e f g h i

[4] `EX DFC` *a* `ABORTED AT PH` *d* `STMNT` *j b* `[(`*c*`)]  MSG IP`

[5] `EX DFC` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `EX DFC` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the disk file controller (DFC) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

- ATP All tests passed.
- CATP All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.
- NTR No tests were executed.
- STF Some tests failed.

c = If *b* = CATP or NTR, *c* identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, if *c* = (00000000 00000018), tests were skipped for reasons 3 and 4.

If *b* = STF, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 00000006), seven tests failed, plus tests were skipped for reasons 1 and 2. The reason codes are as follows:

- Bit 0 — Helper unit not specified or invalid.
- Bit 1 — Helper unit cannot be reserved.
- Bit 2 — Helper unit is not out-of-service.
- Bit 3 — Helper unit is not ATP.
- Bit 4 — Helper unit not connected to controller being diagnosed.

NOTE: To interpret CATP bits 32-46, the structure of the system must be understood. All device references are relative to the DFC under test, and may not correspond to "real" unit numbers. The down pointer of the DFC will point to the first SBUS. The side pointer of the first SBUS points to the second SBUS. Similarly, the down pointer of an SBUS points to the first MHD beneath it. The side pointer of an MHD points to the next MHD in the chain. These concepts are displayed graphically on display pages 120 and 122. The leftmost SBUS under a DFC is considered first SBUS, with the rightmost SBUS being second. MHD relative numbering for each SBUS is top-down, with the top MHD being first and the bottom being last. Currently only four MHDs per SBUS are supported.

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Additional CATP bits for the SCSI-DFC:

Bit	Reason
32	First MHD on first SBUS of DFC did not respond correctly.
33	Second MHD on first SBUS of DFC did not respond correctly.
34	Third MHD on first SBUS of DFC did not respond correctly.
35	Fourth MHD on first SBUS of DFC did not respond correctly.
36	Reserved for fifth MHD on first SBUS of DFC.
37	Reserved for sixth MHD on first SBUS of DFC.
38	Reserved for seventh MHD on first SBUS of DFC.
40	First MHD on second SBUS of DFC did not respond correctly.
41	Second MHD on second SBUS of DFC did not respond correctly.
42	Third MHD on second SBUS of DFC did not respond correctly.
43	Fourth MHD on second SBUS of DFC did not respond correctly.
44	Reserved for fifth MHD on second SBUS of DFC.
45	Reserved for sixth MHD on second SBUS of DFC.
46	Reserved for seventh MHD on second SBUS of DFC.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits that were received from the device.

h = The mask that determines which bits in *g* are of interest to this test.

i = The value that the test expected.

NOTE: For Format 3 the values for *g*, *h*, and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

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4. ACTION TO BE TAKEN

Formats 1, 5, and 6 are informational reports and require no action.

For Formats 2, 3, and 4, if *b* = CATP, the needed system resource should be made available if possible, so that all tests may be executed. If *b* = STF, the unit should be repaired as quickly as possible. See the *Corrective Maintenance* manual for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Messages
```
EX:DFC
STOP:DMQ
STP:DMQ
```

Output Message
```
DGN-DFC
```

Practice 235-105-220 *Corrective Maintenance Procedures*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . EX-DUIC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `EX DUIC` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `EX DUIC` *a* `PH` *d* *b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `EX DUIC` *a* `PH` *d* `STF (`*c*`)  MSG IP`
`TEST  MISMATCH  ACTUAL  MASK  EXPECTED`
e *f* *g* *h* *i*

[4] `EX DUIC` *a* `ABORTED AT PH` *d* `STMNT` *j* *b* `[(`*c*`)]  MSG IP`

[5] `EX DUIC` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `EX DUIC` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the direct user interface controller (DUIC) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

ATP — All tests passed.
NTR — No tests were executed.
STF — Some tests failed.

c = If *b* = STF, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines which bits in *g* are included in this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h* and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

If *b* = STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for the repair procedures.

4. ALARMS

This alarm is automatically generated. Action may or may not be required.

5. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

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Input Messages
```
EX:DUIC
STOP:DMQ
STP:DMQ
```

Output Message
```
DGN-DUIC
```

Practice 235-105-220 *Corrective Maintenance Procedures*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . EX-HSDC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `EX HSDC` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `EX HSDC` *a* `PH` *d* *b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `EX HSDC` *a* `PH` *d* `STF (`*c*`) MSG IP`
`TEST MISMATCH ACTUAL MASK EXPECTED`
e *f* *g* *h* *i*

[4] `EX HSDC` *a* `ABORTED AT PH` *d* `STMNT` *j* *b* `[(`*c*`)] MSG IP`

[5] `EX HSDC` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `EX HSDC` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the high speed data link controller (HSDC) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

ATP — All tests passed.
NTR — No tests were executed.
STF — Some tests failed.

c = If *b* = STF, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines which bits in *g* are included in this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h* and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If *b* = STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

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6. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Messages

```
EX:HSDC
STOP:DMQ
STP:DMQ
```

Output Message

```
DGN-SDLC
```

Practice 235-105-220 *Corrective Maintenance Procedures*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . EX-IOP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `EX IOP` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `EX IOP` *a* `PH` *d b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `EX IOP` *a* `PH` *d* `STF (`*c*`)  MSG IP`
`TEST  MISMATCH  ACTUAL  MASK  EXPECTED`
e f g h i

[4] `EX IOP` *a* `ABORTED AT PH` *d* `STMNT` *j b* `[(`*c*`)]  MSG IP`

[5] `EX IOP` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `EX IOP` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the input/output processor (IOP) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

ATP — All tests passed.
CATP — All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.
NTR — No tests were executed.
STF — Some tests failed.

c = If *b* = CATP or NTR, *c* identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, if *c* = (00000000 00000018), tests were skipped for reasons 3 and 4.

If *b* = STF, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 00000006), seven tests failed, plus tests were skipped for reasons 1 and 2. The reasons are as follows:

Bit 0 — Helper unit not specified or invalid.
Bit 1 — Helper unit cannot be reserved.
Bit 2 — Helper unit not out-of-service.
Bit 3 — Helper unit is not ATP.
Bit 4 — Helper unit not connected to controller being diagnosed.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines which bits in *g* are included in this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h* and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

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4. ACTION TO BE TAKEN

If *b* = CATP, the needed system resource should be made available if possible, so that all tests may be executed. If *b* = STF, the unit should be repaired as quickly as possible. See Practice 235-105-220 for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Messages
```
EX:IOP
STOP:DMQ
STP:DMQ
```

Output Message
```
DGN-IOP
```

Practice 235-105-220 *Corrective Maintenance Procedures*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . EX LDPARM
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21,15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1]
```
EX LDPARM MASC MEM TEST INPUT VALUES
  START ADDRESS = a
  [ERROR: b]
  END ADDRESS = c
  [ERROR: b]
  REFRESH RATE = d MS
  [ERROR: b]
  NUMBER OF FAILURES = e
  [DATA PATTERN = f]
  [ERROR: b]
```

[2]
```
EX LDPARM MASC UPD TEST INPUT VALUES
  START ADDRESS = a
  [ERROR: b]
  END ADDRESS = c
  [ERROR: b]
  REFRESH RATE = d MS
  [ERROR: b]
  NUMBER OF FAILURES = e
  WORDS PER ARRAY TO COPY = g
  [ERROR: b]
  REFRESH DATA PARITY CHECK TIME = h SEC
```

2. REASON FOR OUTPUT

To echo the memory test parameters input manually as part of the control unit (CU) interactive diagnostic mode using the EX:CU input message in conjunction with EX:LDPARM input message. This output comes from main store diagnostic phases 95 or 96.

Format 1 is printed when mainstore controller (MASC) phase 95 is executed. Format 2 is printed when MASC phase 96 is executed.

3. VARIABLE FIELD DEFINITIONS

a = First or lowest address in the address range of memory to be tested, in hexadecimal notation.

b = Error message explaining why previous line was not accepted. One of the following:

`ADDRESS MUST BE GREATER THAN 0`

`ADDRESS MUST BE ON FULLWORD BOUNDARY`

`START ADDRESS GREATER THAN END ADDRESS`

`END ADDRESS TOO LARGE`

`NOT POSSIBLE REFRESH RATE`

`ERROR VALID REFRESH RATES ARE 2, 4, 6, 8, 10, 12, 14, 16, 32, 36, 40, 44, 48, 52, 56, 60` (3B20D)

`ERROR VALID REFRESH RATES ARE 16, 18, 20, 22, 24, 26, 28, 30` (3B21D)

c = Last or highest address in the address range of memory to be tested, in hexadecimal notation.

d = Rate at which the memory is refreshed by the main store controller, in decimal notation.

e = Number of addresses for which failing information is to be collected, in decimal notation.

f = Data to be written into each memory location in the address range under test, in hexadecimal notation. (MASC phase 95.)

g = Words per memory array to copy from the online to the off-line memory, in hexadecimal notation. (MASC phase 96.)

h = Duration of time, in seconds, for which refresh data parity checks are allowed as a mechanism to scan for errors, in decimal notation. (MASC phase 96.)
For 3B21D, the value printed for this variable field is always zero.

4. ACTION TO BE TAKEN

Reenter the memory test parameters using the `EX:CU` and then `EX:LDPARM` input messages if the values are not as desired.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 39, 40, 41, and 42.
Format 2 has OMDB keys of 39, 40, 41, 43, and 44.

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Input Messages
```
EX:CU
EX:LDPARM
```

Output Message
```
DGN CU
```

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ID . . . . . EX-LOOP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `EX LOOP` *a* [*b*] `INVALID BEGIN`

[2] `EX LOOP` *a* [*b*] `INVALID END` *d*

[3] `EX LOOP` *a* [*b*] `BETWEEN ST` *c-d*

[4] `EX LOOP REQUEST NOT YET ACTIVE NO ACTION TAKEN`

[5] `EX LOOP REQUEST NOT IN INTERACTIVE MODE NO ACTION TAKEN`

[6] `EX LOOP ILLEGAL REQUEST TYPE NO ACTION TAKEN`

2. REASON FOR OUTPUT

To report the result of executing an `EX:LOOP` interactive diagnostic command as part of an interactive diagnostic procedure.

Format 1 prints if the specified loop start data table statement number cannot be found.

Format 2 prints if the specified loop end data table statement number cannot be found by searching forward in the data table from the loop start statement.

Format 3 prints if a diagnostic program loop has been established as specified in the input command.

Format 4 prints if the unit (and subunit) specified by the interactive diagnostic command is not in the active queue.

Format 5 prints if the unit (and subunit) specified by the interactive diagnostic command is in the active queue but not an interactive request.

Format 6 prints if the unit (and subunit) specified by the interactive diagnostic command could not be found in either the waiting or active queues.

3. VARIABLE FIELD DEFINITIONS

a = Unit type and member number of unit under test.

b = Unit type and member number of the subunit under the unit under test.

c = Starting data table statement number.

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d = Ending data table statement number.

4. ACTION TO BE TAKEN

For formats 1 and 2, reenter the input command using a valid start or end statement number.

For format 3, no action is needed.

For formats 4, 5, and 6, reenter the input command after an interactive diagnostic request for the specified unit (and subunit) becomes active. Check that the correct unit (and subunit) was specified in the input command. Use the `OP:DMQ` input command to display the requests in the queue. Enter the desired interactive diagnostic request if it is not in the queue. Wait until the desired interactive diagnostic request becomes active, or use the `STOP:DMQ` or `STP:DMQ` input command to remove other request(s) from the queue until the desired interactive diagnostic request becomes active.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1, 2, and 3 have an OMDB key of 46.
Formats 4, 5, and 6 have an OMDB key of 77.

Input Messages
`EX:CU`
`EX:DCI`
`EX:DFC`
`EX:DUIC`
`EX:IOP`
`EX:MHD`
`EX:MTC`
`EX:MTTYC`
`EX:PAUSE`
`EX:SDLC`
`EX:STEP`
`EX:STOP`
`EX:TTYC`
`OP:DMQ`
`STOP:DMQ`
`STP:DMQ`

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ID . . . . . EX-MHD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `EX MHD` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `EX MHD` *a* `PH` *d b* `[(`*c*`)]`
`{MESSAGE IN PROGRESS|MSG IP}`

[3] `EX MHD` *a* `PH` *d* `STF (`*c*`) MSG IP`
`TEST MISMATCH ACTUAL MASK EXPECTED`
e f g h i

[4] `EX MHD` *a* `ABORTED AT PH` *d* `STMNT` *j b* `[(`*c*`)] MSG IP`

[5] `EX MHD` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `EX MHD` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the moving head disk (MHD) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a = Member number (0 or 1).

b = The result of the diagnostic.

ATP — All tests passed.
NTR — No tests were executed.
STF — Some tests failed.

c = If *b* = STF, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 00000000), seven tests failed and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines which bits in *g* are included in this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h* and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

Formats 1, 5, and 6 are informational reports and require no action.

For Formats 2, 3, and 4, if *b* = STF, the unit should be repaired as quickly as possible. See the *Corrective Maintenance* manual for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

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6. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Messages

```
EX:MHD
STOP:DMQ
STP:DMQ
```

Output Message

```
DGN-MHD
```

Practice 235-105-220 *Corrective Maintenance Procedures*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . EX-MT
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `EX MT` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `EX MT` *a* `PH` *d b* `[(`*c*`)]`
`{MESSAGE IN PROGRESS|MSG IP}`

[3] `EX MT` *a* `PH` *d* `STF (`*c*`)  MSG IP`
`TEST  MISMATCH  ACTUAL  MASK  EXPECTED`
e f g h i

[4] `EX MT` *a* `ABORTED AT PH` *d* `STMNT` *j b* `[(`*c*`)]  MSG IP`

[5] `EX MT` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `EX MT` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

Prints the results of the diagnostic executed on the magnetic tape (MT) in interactive mode.

Format 1 prints at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnostic or RAW data was specified on the diagnostic request.

Format 3 indicates the diagnostic results for an individual failing phase.

Format 4 indicates the diagnostic was stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a = Member number (0 or 1).

b = The result of the diagnostic.

ATP — All tests passed.
NTR — No tests were executed.
STF — Some tests failed.

c = If *b* = STF, *c* identifies the number of test failures in addition to the number of tests skipped. For example, if *c* = (7 00000000 00000000), seven tests failed and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines which bits in *g* are included in this test.

i = The value which the test expected.

NOTE: For format 3, the values for *g*, *h*, and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

Formats 1, 5, and 6 are informational reports and require no action.

For formats 2, 3, and 4, if *b* = STF, the unit should be repaired as quickly as possible; seek technical assistance.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

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Input Messages
EX:MT
STOP:DMQ
STP:DMQ

Output Message
DGN-MT

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ID . . . . . EX-MTC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `EX MTC` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `EX MTC` *a* `PH` *d b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `EX MTC` *a* `PH` *d* `STF (`*c*`)  MSG IP`
`TEST  MISMATCH  ACTUAL  MASK  EXPECTED`
e f g h i

[4] `EX MTC` *a* `ABORTED AT PH` *d* `STMNT` *j b* `[(`*c*`)]  MSG IP`

[5] `EX MTC` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `EX MTC` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the magnetic tape controller (MTC) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

- ATP — All tests passed.
- CATP — All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.
- NTR — No tests were run.
- STF — Some tests failed.

c = If *b* = CATP or NTR, *c* identifies the reasons tests were skipped by their bit position in a 16-digit hexadecimal number. For example, if *c* = (00000000 0000018), tests were skipped for reasons 3 and 4.

If *b* = STF, *c* identifies the number of test failures in addition to the reasons tests were skipped. For example, if *c* = (7 00000000 0000006), seven tests failed, plus tests were skipped for reasons 1 and 2. The reason codes are as follows:

- Bit 0 — Helper unit not specified or invalid.
- Bit 1 — Helper unit cannot be reserved.
- Bit 2 — Helper unit not out-of-service.
- Bit 3 — Helper unit is not ATP.
- Bit 4 — Helper unit not connected to controller under test.
- Bit 17 — Helper MT tape not mounted and/or transport door open.
- Bit 18 — Helper MT transport not in on-line mode.
- Bit 19 — Helper MT tape reel has no write enable ring (WER).
- Bit 20 — Helper MT tape too long for diagnostic test tape.
- Bit 21 — Helper MT tape has no header block at BOT or header block indicates not diagnostic test tape.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines which bits in *g* are included in this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h* and *i* may be set to N/A. This means that this data is not available for the specified device.

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j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If *b* = CATP, the needed system resource should be made available if possible, so that all tests may be executed. If *b* = STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Messages
```
EX:MTC
STOP:DMQ
STP:DMQ
```

Output Message
```
DGN-MTC
```

Practice 235-105-220 *Corrective Maintenance Procedures*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

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ID . . . . . EX-MTTYC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `EX MTTYC` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `EX MTTYC` *a* `PH` *d b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `EX MTTYC` *a* `PH` *d* `STF (`*c*`)  MSG IP`
`TEST  MISMATCH  ACTUAL  MASK  EXPECTED`
e f g h i

[4] `EX MTTYC` *a* `ABORTED AT PH` *d* `STMNT` *j b* `[(`*c*`)]  MSG IP`

[5] `EX MTTYC` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `EX MTTYC` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the maintenance teletypewriter controller (MTTYC) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

ATP — All tests passed.
NTR — No tests were executed.
STF — Some tests failed.

c = If *b* = STF, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines which bits in *g* are included in this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h* and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If *b* = STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

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6. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Messages

```
EX:MTTYC
STOP:DMQ
STP:DMQ
```

Output Message

```
DGN-MTTYC
```

Practice 235-105-220 *Corrective Maintenance Procedures*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . EX-PAUSE
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `EX PAUSE` *a* [*b*] `SUSPENDED AT ST` *c*

[2] `EX PAUSE REQUEST NOT YET ACTIVE NO ACTION TAKEN`

[3] `EX PAUSE REQUEST NOT IN INTERACTIVE MODE NO ACTION TAKEN`

[4] `EX PAUSE ILLEGAL REQUEST TYPE NO ACTION TAKEN`

2. REASON FOR OUTPUT

To report the result of executing an `EX:PAUSE` interactive diagnostic command as part of an interactive diagnostic procedure.

Format 1 prints when the interactive diagnostic is suspended.

Format 2 prints if the unit (and subunit) specified by the interactive diagnostic command is not in the active queue.

Format 3 prints if the unit (and subunit) specified by the interactive diagnostic command is in the active queue but not an interactive request.

Format 4 prints if the unit (and subunit) specified by the interactive diagnostic command could not be found in either the waiting or active queues.

3. VARIABLE FIELD DEFINITIONS

a = Unit type and member number of unit under test.

b = Unit type and member number of the subunit under the unit under test.

c = Data table statement number.

4. ACTION TO BE TAKEN

For format 1, after the possible hardware troubleshooting, advance through the data table by issuing the `EX:PAUSE` command again or by issuing the `EX:STEP` command.

For formats 2, 3, and 4, reenter the input command after an interactive diagnostic request for the specified unit (and subunit) becomes active. Check that the correct unit (and subunit) was specified in the input command. Use the `OP:DMQ` input command to display the requests in the queue. Enter the desired interactive diagnostic request if it is not in the queue. Wait until the desired interactive diagnostic request becomes active, or use the

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`STOP:DMQ` or `STP:DMQ` input command to remove other request(s) from the queue until the desired interactive diagnostic request becomes active.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Format 1 has an OMDB key of 46.
Formats 2, 3, and 4 have an OMDB key of 77.

Input Messages
`EX:CU`
`EX:DCI`
`EX:DFC`
`EX:DUIC`
`EX:IOP`
`EX:MHD`
`EX:MTC`
`EX:MTTYC`
`EX:PAUSE`
`EX:SDLC`
`EX:STEP`
`EX:TTYC`
`OP:DMQ`
`STOP:DMQ`
`STP:DMQ`

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ID . . . . . EX-SCSDC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `EX SCSDC` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `EX SCSDC` *a* `PH` *d b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `EX SCSDC` *a* `PH` *d* `STF (`*c*`) MSG IP`
`TEST MISMATCH ACTUAL MASK EXPECTED`
e f g h i

[4] `EX SCSDC` *a* `ABORTED AT PH` *d* `STMNT` *j b* `[(`*c*`)] MSG IP`

[5] `EX SCSDC` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `EX SCSDC` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To report the results of an interactive mode diagnostic run on the scanner and signal distributor controller (SCSDC).

Format 1 specifies the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a = Member number (0 or 1).

b = The result of the diagnostic.

ATP — All tests pass.
NTR — No tests were run.
STF — Some tests failed.

c = If *b* = STF, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 00000000), seven tests failed and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines which bits in *g* are included in this test.

i = The value which the test expected.

NOTE: For format 3 the values for *g*, *h* and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If *b* = STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

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6. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Message

`EX:TTYC`

Output Messages

`DGN-TTYC`
`STOP-DMQ`
`STP-DMQ`

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ID . . . . . EX-SDLC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `EX SDLC` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `EX SDLC` *a* `PH` *d* *b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `EX SDLC` *a* `PH` *d* `STF (`*c*`)  MSG IP`
`TEST  MISMATCH  ACTUAL  MASK  EXPECTED`
e *f* *g* *h* *i*

[4] `EX SDLC` *a* `ABORTED AT PH` *d* `STMNT` *j* *b* `[(`*c*`)]  MSG IP`

[5] `EX SDLC` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `EX SDLC` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To report the results of an interactive mode diagnostic run on the synchronous data link controller (SDLC).

Format 1 specifies the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a = Member number (0 or 1).

b = The result of the diagnostic.

ATP — ALL tests pass.
NTR — No tests were run.
STF — Some tests failed.

c = If *b* = STF, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 00000000), seven tests failed and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines which bits in *g* are included in this test.

i = The value which the test expected.

NOTE: For Format 3, the values for *g*, *h*, and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If *c* = STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

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6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

Input Message
`EX:TTYC`

Output Messages
`DGN-TTYC`

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ID . . . . . EX-STEP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `EX STEP` *a* [*b*] `SUSPENDED AT ST` *c*

[2] `EX STEP REQUEST NOT YET ACTIVE NO ACTION TAKEN`

[3] `EX STEP REQUEST NOT IN INTERACTIVE MODE NO ACTION TAKEN`

[4] `EX STEP ILLEGAL REQUEST TYPE NO ACTION TAKEN`

2. REASON FOR OUTPUT

To report the result of executing an `EX:STEP` interactive diagnostic command as part of an interactive diagnostic procedure.

Format 1 prints when the interactive diagnostic is suspended.

Format 2 prints if the unit (and subunit) specified by the interactive diagnostic command is not in the active queue.

Format 3 prints if the unit (and subunit) specified by the interactive diagnostic command is in the active queue but not an interactive request.

Format 4 prints if the unit (and subunit) specified by the interactive diagnostic command could not be found in either the waiting or active queues.

3. VARIABLE FIELD DEFINITIONS

a = Unit type and member number of unit under test.

b = Unit type and member number of the subunit under the unit under test.

c = Data table statement number.

4. ACTION TO BE TAKEN

For format 1, after the possible hardware troubleshooting, advance through the data table by issuing the `EX:STEP` command again or by issuing the `EX:PAUSE` command.

For formats 2, 3, and 4, reenter the input command after an interactive diagnostic request for the specified unit (and subunit) becomes active. Check that the correct unit (and subunit) was specified in the input command. Use the `OP:DMQ` input command to display the requests in the queue. Enter the desired interactive diagnostic request if it is not in the queue. Wait until the desired interactive diagnostic request becomes active, or use the

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`STOP:DMQ` or `STP:DMQ` input command to remove other request(s) from the queue until the desired interactive diagnostic request becomes active.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Format 1 has an OMDB key of 46.
Formats 2, 3, and 4 have an OMDB key of 77.

Input Messages
`EX:CU`
`EX:DCI`
`EX:DFC`
`EX:DUIC`
`EX:IOP`
`EX:MHD`
`EX:MTC`
`EX:MTTYC`
`EX:PAUSE`
`EX:SDLC`
`EX:SDSDC`
`EX:STEP`
`EX:TTYC`
`OP:DMQ`
`STOP:DMQ`
`STP:DMQ`

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ID . . . . . EX-STOP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `EX STOP REQUEST NOT YET ACTIVE NO ACTION TAKEN`

[2] `EX STOP REQUEST NOT IN INTERACTIVE MODE NO ACTION TAKEN`

[3] `EX STOP ILLEGAL REQUEST TYPE NO ACTION TAKEN`

2. REASON FOR OUTPUT

To report the result of executing an `EX:STOP` interactive diagnostic command but the appropriate interactive request could not be found.

Format 1 prints if the unit (and subunit) specified by the interactive diagnostic command is not in the active queue.

Format 2 prints if the unit (and subunit) specified by the interactive diagnostic command is in the active queue but not an interactive request.

Format 3 prints if the unit (and subunit) specified by the interactive diagnostic command could not be found in either the waiting or active queues.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

For formats 1, 2, and 3, reenter the input command after an interactive diagnostic request for the specified unit (and subunit) becomes active. Check that the correct unit (and subunit) was specified in the input command. Use the `OP:DMQ` input command to display the requests in the queue. Enter the desired interactive diagnostic request if it is not in the queue. Wait until the desired interactive diagnostic request becomes active, or use the `STOP:DMQ` or `STP:DMQ` input command to remove other request(s) from the queue until the desired interactive diagnostic request becomes active.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1, 2, and 3 have an OMDB key of 77.

Input Messages

```
EX:CU
EX:DCI
EX:DFC
EX:DUIC
EX:IOP
EX:LOOP
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE
EX:SDLC
EX:SDSDC
EX:STEP
EX:TTYC
OP:DMQ
STOP:DMQ
STP:DMQ
```

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ID . . . . . EX-TTYC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `EX TTYC` *a* `[COMPLETED]` *b* `[(`*c*`)]`
`{MESSAGE|MSG} {IN PROGRESS|COMPLETE}`

[2] `EX TTYC` *a* `PH` *d b* `[(`*c*`)] {MESSAGE IN PROGRESS|MSG IP}`

[3] `EX TTYC` *a* `PH` *d* `STF (`*c*`)  MSG IP`
`TEST  MISMATCH  ACTUAL  MASK  EXPECTED`
e f g h i

[4] `EX TTYC` *a* `ABORTED AT PH` *d* `STMNT` *j b* `[(`*c*`)]  MSG IP`

[5] `EX TTYC` *a* `TERMINATED AT PH` *d* `STMNT` *j* `AFTER TEST` *k*

[6] `EX TTYC` *a* `TASK` *l* `{MESSAGE STARTED|QUEUED|ABORTED}`

2. REASON FOR OUTPUT

To print results of a diagnostic run on the teletypewriter controller (TTYC) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic.

ATP — All tests passed.
NTR — No tests were executed.
STF — Some tests failed.

c = If *b* = STF, *c* identifies the number of test failures in addition to the reasons that tests were skipped. For example, if *c* = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A *1* in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines which bits in *g* are included in this test.

i = The value which the test expected.

NOTE: For Format 3 the values for *g*, *h* and *i* may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If *b* = STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

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Input Messages

```
EX:TTYC
STOP:DMQ
STP:DMQ
```

Output Message

```
DGN-TTYC
```

Practice 235-105-220 *Corrective Maintenance Procedures*

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ID . . . . . EXC-E,PROC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `EXC ENVIR PROC` *a* {`STARTED`|`IN PROGRESS`|`COMPLETED`}
b

[2] `EXC ENVIR PROC` *a* `STOPPED`
{`CAN'T EXECUTE PROCESS` *a* |
`ERRNO=`*c* |
`NO CHILD PROCESS`}

2. REASON FOR OUTPUT

To report the execution of a kernel or supervisor process.

Format 1 is printed if the process was run in the foreground.

Format 2 is printed if the process was run in the background.

NOTE: `STARTED`, `IN PROGRESS`, and `COMPLETED` messages appear when three or more output segments are printed.

`STARTED` and `COMPLETED` messages appear when two output segments are printed.

A `COMPLETED` message appears when only one output segment is printed.

3. VARIABLE FIELD DEFINITIONS

a = Pathname specified in the input command.

b = Result of the process executed.

c = System error code number. See System Error Codes Output Appendix, `SYSERR-APP`.

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4. ACTION TO BE TAKEN

Refer to the input message manual for the correct format, and reenter the input message or check the status of the file using the `OP:STATUS;LISTDIR` input message if either of the first two Format 2 messages is printed.

Use the `ALW:FILESYS;ACCESS` input message to make the file executable, if necessary.

Seek technical assistance if the third Format 2 message or any other error message is printed.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 288.

Output Appendix
`SYSERR-APP`

Input Messages
`ALW:F;ACCESS`
`EXC:E;PROC`
`EXC:E;UPROC`
`OP:ST;LSTDIR`

Output Message
`OP-ST,LSTDIR`

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ID . . . . . EXC-E,UPROC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `EXC ENVIR UPROC {STARTED|IN PROGRESS SEGMENT` *a* `|`
`COMPLETED [SEGMENT` *a*`] |STOPPED}`

[2] `EXC ENVIR UPROC` *a* `STOPPED {[`*b*`] |`
`CANNOT EXEC` *c*`, ERRNO` *d* `|`
`CANNOT CREATE A NEW PROCESS}`

[3] `EXC ENVIR UPROC - PID =` *e*

2. REASON FOR OUTPUT

Format 1 is printed to report the result of executing a user process.

Format 2 is printed to report the reason the process was STOPPED.

Format 3 is printed to give the PID if the process was executed in the background.

NOTE: `STARTED`, `IN PROGRESS`, and `COMPLETED` messages appear when three or more output segments are printed.

`STARTED` and `COMPLETED` messages appear when two output segments are printed.

A `COMPLETED` message appears when only one output segment is printed.

The `STOPPED` message appears when an error occurs in the executed pathname.

The `SEGMENT` information appears with `IN PROGRESS` and optionally with `COMPLETED` messages for segments 2 or greater.

3. VARIABLE FIELD DEFINITIONS

a = The number of segments output.

b = Result of the process executed. (Output will be zero, one, or multiple lines depending on the process executed.)

c = Pathname specified in the input message.

d = System error code. See System Error Codes Output Appendix, SYSERR-APP.

e = User process identification, PID.

4. ACTION TO BE TAKEN

Refer to the input messages manual for the correct format, and reenter the input message or check the status of the file using the OP:STATUS;LISTDIR input message if the can't exec message is printed.

Use the ALW:FILESYS;ACCESS input message to make the file executable, if necessary.

Seek technical assistance if can't create or any other error message appears.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 282.
Format 2 has an OMDB key of 280.

Output Appendix
SYSERR-APP

Input Messages
ALW:F;ACCESS
EXC:E;PROC
EXC:E;UPROC
OP:ST;LSTDIR

Output Message
OP-ST,LSTDIR

Practice 254-341-110 *DMERT Kernel and Basic Services Software Subsystem Description 3B20D Processor*

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ID . . . . . EXC-OFLBOOT-A
GENERIC . . . . . UNIX RTR R21.3 and R21.11
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has five formats.

[1] `EXC OFLBOOT` {`STARTED` | `IN PROGRESS` | `ABORTED` | `STOPPED` | `TERMINATED`}

[2] `EXC OFLBOOT` *a*
b
`OLBSTATE` `LASTATE` `FUNCTION` `LINE`
c *d* *e* *f*

[3] `EXC OFLBOOT` *a*
b g h
`OLBSTATE` `LASTATE` `FUNCTION` `LINE`
c *d* *e* *f*

[4] `EXC OFLBOOT` *a*
g h [*j*] *b*
`OLBSTATE` `LASTATE` `FUNCTION` `LINE`
c *d* *e* *f*

[5] `EXC OFLBOOT` *a*
b [*i* | *k*]

2. REASON FOR OUTPUT

These messages are output to report information regarding the execution of the offline boot feature.

3. VARIABLE FIELD DEFINITIONS

a = Message type.

`ABORTED` — Application request to stop the offline boot procedure; devices moved to the off-line side will be restored.

`COMPLETED` — Indicates off-line side boot has completed.

`INFO` — For information only.

`STOPPED` — Manual request to stop the offline boot procedure. If the RST option was specified, devices moved to the off-line side will be restored.

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TERMINATED — UNIX® RTR software-initiated termination of the offline boot procedure; devices moved to the off-line side will not be restored.

b = Text Line.

1. A CU IS FORCED

   Printed by EXC:OFLBOOT if either CU 0 or CU 1 is forced on-line.

2. AIM REPORTED CHECKS FAILURE

   AIM pre-oflboot checks have failed.

3. AND NEITHER OOS NOR UCL WAS SPECIFIED

   The specified unit is in the OOS state. For units in this state either the OOS or UCL options must be specified on the command line.

4. BOOT IN PROGRESS

   Indicates the off-line side is booting.

5. BOTH IOP 0 AND IOP 1 CANNOT BE MOVED TO OFFLINE SIDE

   Printed if both IOP 0 and IOP 1 were selected to move to the off-line side.

6. CANNOT ACCESS ECD

   EXC:OFLBOOT encountered problems accessing ECD device information.

7. CANNOT BOOT FROM THIS DEVICE

   It is not possible to boot from a device that is off-line for initialization level 2.

8. CANNOT SEND OLBPRECHK MESSAGE TO AIM ERROR *i*

   A message requesting AIM to perform offline boot prechecks cannot be sent to the AIM process. Reason for failure is given in variable *i*.

SEE PROPRIETARY NOTICE ON COVER PAGE

9. CANNOT UPDATE ECD

   The RC/V ECD cannot be updated. The reason is dependent on the function *e* printed:

DFS	Could not reserve a unit's UCB record as part of EXC:OFLBOOT pre-checks.
UNRESERVE	Could not unreserve a UCB record while stopping offline boot. Some units' UCB records may remain reserved.

10. CANNOT VERIFY IF RC/V ECD SESSION IS IN PROGRESS

    The timer for verifying if a disk RC/V ECD session is in progress has expired before the process that checks this responds.

11. CORRUPT ECD UCB RECORD FOR *g h*

    EXC:OFLBOOT encountered inconsistent information about a device from RC/V ECD. For example, EXC:OFLBOOT accessed the RC/V ECD UCB record for a DFC and the device type in the UCB record is not DFC.

12. COULD NOT BUILD TABLE FOR UNKNOWN DEVICE

    Indicates an illegal instruction inside EIH. Offline boot will be terminated.

13. DFC 2 OOS DFC 3 ACT AND UCL WAS NOT SPECIFIED

    When more than two DFCs are present, offline boot will attempt to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If DFC 2 is in the OOS state and DFC 3 is in the ACT state, the UCL option is required. Offline boot will be terminated.

14. DFC 2 OOS DFC 3 OOS AND UCL WAS NOT SPECIFIED

    When more than two DFCs are present, offline boot will attempt to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If both DFC 2 and DFC 3 are in the OOS state, the UCL option is required. Offline boot will be terminated.

15. DFC 3 OOS DFC 2 ACT AND UCL WAS NOT SPECIFIED

    When more than two DFCs are present, offline boot will attempt to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If DFC 3 is in the OOS state and DFC 2 is in the ACT state, the UCL option is required. Offline boot will be terminated.

SEE PROPRIETARY NOTICE ON COVER PAGE

16. DIAGNOSTICS IN PROGRESS

    Indicates the specified device's RC/V ECD UCB record is marked "reserved." Most often this is the case when diagnostics, or other type of maintenance work, are running on a device.

17. EXCEEDED STORAGE CAPACITY FOR STORING DEVICE INFORMATION

    Indicates overflow in internal tables holding device information for offline boot.

18. HAS CORRUPT UNIT NUMBER

    The unit number for the MTTYC is greater than or equal to 2 and this is invalid.

19. HAS DEVICE TYPE ROP

    A UCB record with device type ROP was found whose parent controller was not MTTYC or TTYC.

20. IN DISK INDEPENDENT OPERATION MODE

    Printed if the system is in disk independent operation mode.

21. INITLVL 2 INCOMPATIBLE WITH ANY MHD IN OFL STATE

    Invoking offline boot with initialization level 2 will be rejected if any MHD is in the OFL state. Offline boot will be terminated.

22. MODE MUST BE OLBIDLE TO BOOT OFFLINE

    This message indicates that either offline boot is already in progress or offline boot is not supported.

23. MUST BE ACT OR OOS FOR SPLITTING

    When more than two DFCs are present, offline boot will attempt to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If either DFC 2 or DFC 3 is in the UNEQIP, GROW, OFL, or STBY state, both DFC 2 and DFC 3 will remain in the on-line side. The offline boot will continue without splitting DFC 2 and DFC 3.

SEE PROPRIETARY NOTICE ON COVER PAGE

24. `MUST BE ACT FOR INITLEVEL 2`

    The TTY device selected to be the off-line pseudo-ROP is OOS. Also selected was an initialization level 2. Because devices are not automatically restored during this level of initialization, the TTY would have remained OOS in the off-line side after the initialization, that is, there would not have been a pseudo-ROP in the off-line side. This condition cannot be overridden with the OOS or UCL options.

25. `MUST BE STBY FOR INITLEVEL 2`

    Boot level 2 was selected and the off-line CU is not in the STBY state. The incorrect state is given in variable *j*.

26. `NO DISK FORCED`

    Indicates a DFC is not forced.

27. `NO EXC OFLBOOT IN PROGRESS MESSAGE WILL PRINT`

    Printed when all internal timer slots have been used and a new timer cannot be obtained to print the `EXC-OFLBOOT,IN PROGRESS` messages.

28. `NO TIMER SLOTS AVAILABLE`

    Printed when all internal timer slots have been used. Timer slots are freed at this point.

29. `NOT ACTIVE`

    Printed if the specified device is not in the ACT state. The incorrect state is given in variable j.

30. `NOT SPLITTING - DFC 2 UNEQIP`

    When more than two DFCs are present, offline boot will attempt to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If either DFC 2 or DFC 3 is in the UNEQIP, GROW, OFL, or STBY state, both DFC 2 and DFC 3 will remain in the on-line side. The offline boot will continue without splitting DFC 2 and DFC 3.

31. `NOT SPLITTING - DFC 3 UNEQIP`

    When more than two DFCs are present, offline boot will attempt to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If either DFC 2 or DFC 3 is in the UNEQIP, GROW, OFL, or STBY state, both DFC 2 and DFC 3 will remain in the on-line side. The offline boot will continue without splitting DFC 2 and DFC 3.

SEE PROPRIETARY NOTICE ON COVER PAGE

32. `OFFLINE SIDE BOOT COMPLETE`

    If function *e* is `TIM_EXCCHK`, the on-line side did not receive the results from the post-boot checks in time.

    If the function is `TIM_PRINT,AIM` did not reply to the message to print post-boot or switch checks.

    If the function is `OLBMSGHDLR`, the offline boot sequence completed all its steps.

33. `OLBSTATE` *c* `NOT EXC_LCKECD`

    Printed if offline boot is not in the `EXC_LCKECD` state when `EXC:OFLBOOT` expects it to be. `OLBSTATE` is corrupt or an internal timer was not cleared correctly.

34. `OLBSTATE` *c* `NOT EXC_PRCK`

    Printed if offline boot is not in the `EXC_PRCK` state when `EXC:OFLBOOT` expects it to be. `OLBSTATE` is corrupt or an internal timer was not cleared correctly.

35. `OLBSTATE MUST BE OLBIDLE TO BOOT OFFLINE`

    This message indicates that either an offline boot is already in progress or the value stored in `OLBSTATE` is corrupted.

36. `ONLY ONE BOOT DEVICE`

    Only one boot device is installed. Minimally, both MHD 0 and MHD 1 need to be installed for a system to be considered fully duplex.

37. `SPECIFIED TTY DOES NOT EXIST`

    The TTY device specified in the command line is invalid.

38. `STATE UNACCEPTABLE FOR OFFLINE BOOT`

    The major state of a device is not in the state needed while attempting to boot off-line. The incorrect state is given in variable j.

SEE PROPRIETARY NOTICE ON COVER PAGE

39. `SYSTEM STATUS INCONSISTENT WITH COMMAND LINE OPTIONS`

    Printed if command line options do not match system status. This message will be output if any of the following conditions are true:

    — required unit is OOS and neither OOS nor UCL was specified

    — specified TTY does not exist

    — specified IOP does not exist

    — both IOP 0 and IOP 1 are selected for moving

    — a primary disk was not forced

    — a CU is forced

    — only one bootable disk is available or one of the bootable disks is not equipped

    — mate CU state is not STBY or OOS

    — if any RC/V ECD UCB record is reserved.

    This list is not exhaustive. Additional information is provided in a previous output message. Refer to it for a description of the problem.

40. `TIME OUT -- AIM OFLBOOT PRECHECKS`

    Printed when the timer for AIM offline boot prechecks expires.

41. `TIME OUT -- CANNOT SPAWN USER PROCESS`

    Printed when a timer expires for creating a process to verify if a disk RC/V ECD session is in progress.

42. `UCL PASSWD FILE CANNOT BE OPENED FOR WRITING`

    See action to be taken.

43. `UCL PASSWD FILE DOES NOT EXIST, SET TO` *k*

    The password file does not exist when the UCL option is used for the first time. A new encrypted password *k* is generated automatically.

44. `UCL PASSWD FILE HAD BAD FORMAT, RESET TO` *k*

    Either the file was empty or its contents was damaged. A new encrypted password *k* is generated automatically.

45. `UCL PASSWD IS INVALID, RESET TO` *k*

The password supplied by the user is incorrect. A new encrypted password *k* is generated automatically.

46. `UNEXPECTED MESSAGE FROM AIM`

    Indicates a message was received unexpectedly from AIM.

47. `UP POINTER IS INVALID`

    Printed when the RC/V ECD UCB record for a device (containing the up pointer) has been corrupted.

48. `WILL BE MOVED TO OFFLINE SIDE`

    Printed when an IOP has not been selected to be moved to the off-line side, but offline boot selected it to be moved. It was selected because one of its TTYs was listed on the command line.

c = Current offline boot state.

d = Previous offline boot state.

e = Name of the function from which the output message originated. This field is used by UNIX® RTR in diagnosing offline boot problems.

f = Line number in the function *e* from which the output message originated. This field is used by UNIX® RTR, in conjunction with field *e*, to diagnose offline boot problems.

g = String giving device type information; CU, DFC, IOP, MHD, TTY, TTYC, and DSCH, for example. Unit names are listed in the Member Numbers Appendix, `MEM-NUM-APPC`, Table C, of this manual.

h = Device number. A value of zero, when used with *g*, could form DFC 0, for example.

i = Reason message could not be sent.

- `0` — Process is not attached to its port or port is invalid.
- `8192` — Process cannot queue more messages.
- `-1` — Cannot allocate system message buffer.

j = Device state.

k = To obtain a legal password for using the UCL option, seek technical assistance, and provide the encrypted password *k*. The value *k* will change every time the UCL option is entered; thus, using the UCL option always requires contacting technical assistance.

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4. ACTION TO BE TAKEN

For Format 1, no action needs to be taken.

For Formats 2, 3, 4, and 5, the action to be taken depends on text line *b*.

Text line: Action to be Taken:

1. Clear the forced on-line CU and try offline boot again.
2. Clear problem with application; try offline boot again.
3. Either restore the device or add OOS or UCL to the `EXC:OFLBOOT` command line.
4. This message is for information only; no action is needed.
5. Specify only one primary IOP (IOP 0 or IOP 1) in addition to any other IOPs (IOP 2, IOP 3, etc.). Try offline boot again.
6. Run audits ECD 1 and ECD 3. If the audits pass, try offline boot again.
7. Restore boot device and try offline boot again. If the device cannot be restored, try offline boot again with initialization level 3 or 4.
8. Seek technical assistance.
9. The action to be taken depends on the function *e* output with the message:

   `DFS` Run RC/V ECD audits. If the audits pass, try offline boot again.

   `UNRESERVE` If diagnostics are not running, then the RC/V ECD UCB record is corrupted; in this case, the UCB record needs to be unreserved manually or through the ECDOWN audit.

10. Try offline boot again.
11. Run audits ECD 1 and ECD 3. If the audits pass, try offline boot again.
12. Save the ROP output and seek technical assistance.
13. Try offline boot again specifying the UCL option.

NOTE: The UCL option inhibits application-initiated aborts during offline boot. See the `EXC:OFLBOOT` input message for more information on UCL.

14. Try offline boot again specifying the UCL option.

NOTE: The UCL option inhibits application-initiated aborts during offline boot. See the `EXC:OFLBOOT` input message for more information on UCL.

15. Try offline boot again specifying the UCL option.

NOTE: The UCL option inhibits application-initiated aborts during offline boot. See the `EXC:OFLBOOT` input message for more information on UCL.

16. Wait for diagnostics to complete, fix any problems, and then try offline boot again. If diagnostics are not running, the RC/V ECD UCB record is corrupt. In this case, the UCB needs to be unreserved manually or through the ECDOWN audit.
17. Save the ROP output and seek technical assistance.

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18. Run audits ECD 1 and ECD 3. If the audits pass, verify RC/V ECD UCB record for this MTTYC; the unit value should be 0 or 1. Try offline boot again.
19. Run audits ECD 1 and ECD 3. If the audits pass, verify RC/V ECD UCB record for this unit. The device type of the ROP controller must be MTTYC or TTYC. Try offline boot again.
20. This message is for information only; no action is needed.
21. Either change the state of affected devices from OFL or specify INITLVL 3 or 4; then try offline boot again.
22. Allow the existing offline boot process to complete or seek technical assistance.
23. This message is for information only; no action is needed.
24. Restore the specified TTY, or select another TTY that is ACT, or do not specify the TTY option, or use initialization level 3 or 4.
25. Change the state of this device to the state needed by `EXC:OFLBOOT`; try offline boot again.
26. Force a DFC; try offline boot again.
27. This message is for information only; no action is needed.
28. This message is for information only; no action is needed.
29. Change the state of this device to the state needed by `EXC:OFLBOOT`; try offline boot again.
30. This message is for information only; no action is needed.
31. This message is for information only; no action is needed.
32. The action to be taken is dependent on the function *e* output with the message:

    `OLBMSGHDLR` — No action is needed.

    `TIM_EXCCHK` — Check OLBLOG files on the off-line side to determine if AIM has a problem. Do NOT start a side switch if it does. Also, recover OLBLOG files and send them to technical assistance. If the message was part of a retrofit side switch, look for correct operation on the new side since AIM was having problems and may not support call origination.

    `TIM_PRINT` — Check AIM's operational status on the on-line side.
33. Seek technical assistance.
34. Seek technical assistance.
35. Allow the existing offline boot process to complete or seek technical assistance.
36. Add another boot disk; try offline boot again.
37. Choose a valid TTY and try offline boot again.

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38. Change the state of this device to the state needed by `EXC:OFLBOOT`; try offline boot again.
39. No action is needed.
40. Try offline boot again.
41. Try offline boot again.
42. The use of the UCL option is not recommended; please, try to reconfigure the system in such a way that the UCL option is not needed. Otherwise, seek technical assistance to manually construct a valid password file.
43. The use of the UCL option is not recommended; please, try to reconfigure the system in such a way that the UCL option is not needed. Otherwise, seek technical assistance, provide the encrypted password *k* to obtain a legal password, and try offline boot again.
44. The use of the UCL option is not recommended; please, try to reconfigure the system in such a way that the UCL option is not needed. Otherwise, seek technical assistance, provide the encrypted password *k* to obtain a legal password, and try offline boot again.
45. The use of the UCL option is not recommended; please, try to reconfigure the system in such a way that the UCL option is not needed. Otherwise, seek technical assistance, provide the encrypted password *k* to obtain a legal password, and try offline boot again.
46. Seek technical assistance.
47. Run audits ECD 1 and ECD 3. If the audits pass, try offline boot again.
48. This message is for information only; no action is needed.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

For a minor alarm, take action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 690.
Format 2 has an OMDB key of 704 or 707.
Format 3 has an OMDB key of 705.
Format 4 has an OMDB key of 706.
Format 5 has an OMDB key of 699 or 708.

Appendix
`MEM-NUM-APPC`

Input Messages

```
EXC:OFLBOOT
STOP:OFLBOOT
SW:OFLBOOT
```

Output Messages

```
REPT-OFFLINE
REPT-OFLBOOT
STOP-OFLBOOT
SW-OFLBOOT
```

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . EXC-OFLBOOT-B
GENERIC . . . . . UNIX RTR R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has five formats.

[1] `EXC OFLBOOT` {`STARTED` | `IN PROGRESS` | `ABORTED` | `STOPPED` | `TERMINATED`}

[2] `EXC OFLBOOT` *a*
b
`OLBSTATE` `LASTATE` `FUNCTION` `LINE`
c *d* *e* *f*

[3] `EXC OFLBOOT` *a*
b g h
`OLBSTATE` `LASTATE` `FUNCTION` `LINE`
c *d* *e* *f*

[4] `EXC OFLBOOT` *a*
g h [*j*] *b*
`OLBSTATE` `LASTATE` `FUNCTION` `LINE`
c *d* *e* *f*

[5] `EXC OFLBOOT` *a*
b [*i* | *k*]

2. REASON FOR OUTPUT

These messages are output to report information regarding the execution of the offline boot feature.

3. VARIABLE FIELD DEFINITIONS

a = Message type.

`ABORTED` — Application request to stop the offline boot procedure; devices moved to the off-line side will be restored.

`COMPLETED` — Indicates off-line side boot has completed.

`INFO` — For information only.

`STOPPED` — Manual request to stop the offline boot procedure. If the RST option was specified, devices moved to the off-line side will be restored.

SEE PROPRIETARY NOTICE ON COVER PAGE

TERMINATED — UNIX® RTR software-initiated termination of the offline boot procedure; devices moved to the off-line side will not be restored.

b = Text Line.

1. A CU IS FORCED

   Printed by EXC:OFLBOOT if either CU 0 or CU 1 is forced on-line.

2. AIM REPORTED CHECKS FAILURE

   AIM pre-oflboot checks have failed.

3. AND NEITHER OOS NOR UCL WAS SPECIFIED

   The specified unit is in the OOS state. For units in this state either the OOS or UCL options must be specified on the command line.

4. BOOT IN PROGRESS

   Indicates the off-line side is booting.

5. BOTH IOP 0 AND IOP 1 CANNOT BE MOVED TO OFFLINE SIDE

   Printed if both IOP 0 and IOP 1 were selected to move to the off-line side.

6. CANNOT ACCESS ECD

   EXC:OFLBOOT encountered problems accessing ECD device information.

7. CANNOT BOOT FROM THIS DEVICE

   It is not possible to boot from a device that is off-line for initialization level 2.

8. CANNOT SEND OLBPRECHK MESSAGE TO AIM ERROR *i*

   A message requesting AIM to perform offline boot prechecks cannot be sent to the AIM process. Reason for failure is given in variable *i*.

9. CANNOT UPDATE ECD

   The RC/V ECD cannot be updated. The reason is dependent on the function *e* printed:

   DFS — Could not reserve a unit's UCB record as part of EXC:OFLBOOT pre-checks.

SEE PROPRIETARY NOTICE ON COVER PAGE

UNRESERVE — Could not unreserve a UCB record while stopping offline boot. Some units' UCB records may remain reserved.

10. CANNOT VERIFY IF RC/V ECD SESSION IS IN PROGRESS

    The timer for verifying if a disk RC/V ECD session is in progress has expired before the process that checks this responds.

11. CORRUPT ECD UCB RECORD FOR *g h*

    EXC:OFLBOOT encountered inconsistent information about a device from RC/V ECD. For example, EXC:OFLBOOT accessed the RC/V ECD UCB record for a DFC and the device type in the UCB record is not DFC.

12. COULD NOT BUILD TABLE FOR UNKNOWN DEVICE

    Indicates an illegal instruction inside EIH. Offline boot will be terminated.

13. DFC 2 OOS DFC 3 ACT AND UCL WAS NOT SPECIFIED

    When more than two DFCs are present, offline boot will attempt to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If DFC 2 is in the OOS state and DFC 3 is in the ACT state, the UCL option is required. Offline boot will be terminated.

14. DFC 2 OOS DFC 3 OOS AND UCL WAS NOT SPECIFIED

    When more than two DFCs are present, offline boot will attempt to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If both DFC 2 and DFC 3 are in the OOS state, the UCL option is required. Offline boot will be terminated.

15. DFC 3 OOS DFC 2 ACT AND UCL WAS NOT SPECIFIED

    When more than two DFCs are present, offline boot will attempt to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If DFC 3 is in the OOS state and DFC 2 is in the ACT state, the UCL option is required. Offline boot will be terminated.

16. DIAGNOSTICS IN PROGRESS

    Indicates the specified device's RC/V ECD UCB record is marked "reserved." Most often this is the case when diagnostics, or other type of maintenance work, are running on a device.

SEE PROPRIETARY NOTICE ON COVER PAGE

17. `EXCEEDED STORAGE CAPACITY FOR STORING DEVICE INFORMATION`

    Indicates overflow in internal tables holding device information for offline boot.

18. `HAS CORRUPT UNIT NUMBER`

    The unit number for the MTTYC is greater than or equal to 2 and this is invalid.

19. `HAS DEVICE TYPE ROP`

    A UCB record with device type ROP was found whose parent controller was not MTTYC or TTYC.

20. `IN DISK INDEPENDENT OPERATION MODE`

    Printed if the system is in disk independent operation mode.

21. `INITLVL 2 INCOMPATIBLE WITH ANY MHD IN OFL STATE`

    Invoking offline boot with initialization level 2 will be rejected if any MHD is in the OFL state. Offline boot will be terminated.

22. `MODE MUST BE OLBIDLE TO BOOT OFFLINE`

    This message indicates that either offline boot is already in progress or offline boot is not supported.

23. `MUST BE ACT OR OOS FOR SPLITTING`

    When more than two DFCs are present, offline boot will attempt to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If either DFC 2 or DFC 3 is in the UNEQIP, GROW, OFL, or STBY state, both DFC 2 and DFC 3 will remain in the on-line side. The offline boot will continue without splitting DFC 2 and DFC 3.

24. `MUST BE ACT FOR INITLEVEL 2`

    The TTY device selected to be the off-line pseudo-ROP is OOS. Also selected was an initialization level 2. Because devices are not automatically restored during this level of initialization, the TTY would have remained OOS in the off-line side after the initialization, that is, there would not have been a pseudo-ROP in the off-line side. This condition cannot be overridden with the OOS or UCL options.

25. `MUST BE STBY FOR INITLEVEL 2`

    Boot level 2 was selected and the off-line CU is not in the STBY state. The incorrect state is given in variable *j*.

SEE PROPRIETARY NOTICE ON COVER PAGE

26. NO DISK FORCED

    Indicates a DFC is not forced.

27. NO EXC OFLBOOT IN PROGRESS MESSAGE WILL PRINT

    Printed when all internal timer slots have been used and a new timer cannot be obtained to print the EXC-OFLBOOT,IN PROGRESS messages.

28. NO TIMER SLOTS AVAILABLE

    Printed when all internal timer slots have been used. Timer slots are freed at this point.

29. NOT ACTIVE

    Printed if the specified device is not in the ACT state. The incorrect state is given in variable j.

30. NOT SPLITTING - DFC 2 UNEQIP

    When more than two DFCs are present, offline boot will attempt to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If either DFC 2 or DFC 3 is in the UNEQIP, GROW, OFL, or STBY state, both DFC 2 and DFC 3 will remain in the on-line side. The offline boot will continue without splitting DFC 2 and DFC 3.

31. NOT SPLITTING - DFC 3 UNEQIP

    When more than two DFCs are present, offline boot will attempt to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If either DFC 2 or DFC 3 is in the UNEQIP, GROW, OFL, or STBY state, both DFC 2 and DFC 3 will remain in the on-line side. The offline boot will continue without splitting DFC 2 and DFC 3.

32. OFFLINE SIDE BOOT COMPLETED

    The offline side boot sequence completed successfully.

33. OFFLINE SIDE BOOT COMPLETED WITH ERRORS

    The offline side boot sequence completed with errors. A REPT OFLBOOT message was printed to explain the error.

34. OLBSTATE *c* NOT EXC_LCKECD

    Printed if offline boot is not in the EXC_LCKECD state when EXC:OFLBOOT expects it to be. OLBSTATE is corrupt or an internal timer was not cleared correctly.

35. OLBSTATE *c* NOT EXC_PRCK

Printed if offline boot is not in the EXC_PRCK state when EXC:OFLBOOT expects it to be. OLBSTATE is corrupt or an internal timer was not cleared correctly.

36. OLBSTATE MUST BE OLBIDLE TO BOOT OFFLINE

    This message indicates that either an offline boot is already in progress or the value stored in OLBSTATE is corrupted.

37. ONLY ONE BOOT DEVICE

    Only one boot device is installed. Minimally, both MHD 0 and MHD 1 need to be installed for a system to be considered fully duplex.

38. SPECIFIED TTY DOES NOT EXIST

    The TTY device specified in the command line is invalid.

39. STATE UNACCEPTABLE FOR OFFLINE BOOT

    The major state of a device is not in the state needed while attempting to boot off-line. The incorrect state is given in variable j.

40. SYSTEM STATUS INCONSISTENT WITH COMMAND LINE OPTIONS

    Printed if command line options do not match system status. This message will be output if any of the following conditions are true:

    — required unit is OOS and neither OOS nor UCL was specified

    — specified TTY does not exist

    — specified IOP does not exist

    — both IOP 0 and IOP 1 are selected for moving

    — a primary disk was not forced

    — a CU is forced

    — only one bootable disk is available or one of the bootable disks is not equipped

    — mate CU state is not STBY or OOS

    — if any RC/V ECD UCB record is reserved.

    This list is not exhaustive. Additional information is provided in a previous output message. Refer to it for a description of the problem.

SEE PROPRIETARY NOTICE ON COVER PAGE

41. `TIME OUT -- AIM OFLBOOT PRECHECKS`

    Printed when the timer for AIM offline boot prechecks expires.

42. `TIME OUT -- CANNOT SPAWN USER PROCESS`

    Printed when a timer expires for creating a process to verify if a disk RC/V ECD session is in progress.

43. `UCL PASSWD FILE CANNOT BE OPENED FOR WRITING`

    See action to be taken.

44. `UCL PASSWD FILE DOES NOT EXIST, SET TO` *k*

    The password file does not exist when the UCL option is used for the first time. A new encrypted password *k* is generated automatically.

45. `UCL PASSWD FILE HAD BAD FORMAT, RESET TO` *k*

    Either the file was empty or its contents was damaged. A new encrypted password *k* is generated automatically.

46. `UCL PASSWD IS INVALID, RESET TO` *k*

    The password supplied by the user is incorrect. A new encrypted password *k* is generated automatically.

47. `UNEXPECTED MESSAGE FROM AIM`

    Indicates a message was received unexpectedly from AIM.

48. `UP POINTER IS INVALID`

    Printed when the RC/V ECD UCB record for a device (containing the up pointer) has been corrupted.

49. `WILL BE MOVED TO OFFLINE SIDE`

    Printed when an IOP has not been selected to be moved to the off-line side, but offline boot selected it to be moved. It was selected because one of its TTYs was listed on the command line.

c = Current offline boot state.

d = Previous offline boot state.

e = Name of the function from which the output message originated. This field is used by UNIX® RTR in diagnosing offline boot problems.

f = Line number in the function *e* from which the output message originated. This field is used by UNIX® RTR, in conjunction with field *e*, to diagnose offline boot problems.

g = String giving device type information; CU, DFC, IOP, MHD, TTY, TTYC, and DSCH, for example. Unit names are listed in the Member Numbers Appendix, `MEM-NUM-APPC`, Table C, of this manual.

h = Device number. A value of zero, when used with *g*, could form DFC 0, for example.

i = Reason message could not be sent.

`0` — Process is not attached to its port or port is invalid.

`8192` — Process cannot queue more messages.

`-1` — Cannot allocate system message buffer.

j = Device state.

k = To obtain a legal password for using the UCL option, seek technical assistance, and provide the encrypted password *k*. The value *k* will change every time the UCL option is entered; thus, using the UCL option always requires contacting technical assistance.

4. ACTION TO BE TAKEN

For Format 1, no action needs to be taken.

For Formats 2, 3, 4, and 5, the action to be taken depends on text line *b*.

Text line: Action to be Taken:

1. Clear the forced on-line CU and try offline boot again.
2. Clear problem with application; try offline boot again.
3. Either restore the device or add OOS or UCL to the `EXC:OFLBOOT` command line.
4. This message is for information only; no action is needed.
5. Specify only one primary IOP (IOP 0 or IOP 1) in addition to any other IOPs (IOP 2, IOP 3, etc.). Try offline boot again.
6. Run audits ECD 1 and ECD 3. If the audits pass, try offline boot again.
7. Restore boot device and try offline boot again. If the device cannot be restored, try offline boot again with initialization level 3 or 4.
8. Seek technical assistance.
9. The action to be taken depends on the function *e* output with the message:

`DFS`	Run RC/V ECD audits. If the audits pass, try offline boot again.
`UNRESERVE`	If diagnostics are not running, then the RC/V ECD UCB record is corrupted; in this case, the UCB record needs to be unreserved manually or through the ECDOWN audit.

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10. Try offline boot again.
11. Run audits ECD 1 and ECD 3. If the audits pass, try offline boot again.
12. Save the ROP output and seek technical assistance.
13. Try offline boot again specifying the UCL option.

NOTE: The UCL option inhibits application-initiated aborts during offline boot. See the `EXC:OFLBOOT` input message for more information on UCL.

14. Try offline boot again specifying the UCL option.

NOTE: The UCL option inhibits application-initiated aborts during offline boot. See the `EXC:OFLBOOT` input message for more information on UCL.

15. Try offline boot again specifying the UCL option.

NOTE: The UCL option inhibits application-initiated aborts during offline boot. See the `EXC:OFLBOOT` input message for more information on UCL.

16. Wait for diagnostics to complete, fix any problems, and then try offline boot again. If diagnostics are not running, the RC/V ECD UCB record is corrupt. In this case, the UCB needs to be unreserved manually or through the ECDOWN audit.
17. Save the ROP output and seek technical assistance.
18. Run audits ECD 1 and ECD 3. If the audits pass, verify RC/V ECD UCB record for this MTTYC; the unit value should be 0 or 1. Try offline boot again.
19. Run audits ECD 1 and ECD 3. If the audits pass, verify RC/V ECD UCB record for this unit. The device type of the ROP controller must be MTTYC or TTYC. Try offline boot again.
20. This message is for information only; no action is needed.
21. Either change the state of affected devices from OFL or specify INITLVL 3 or 4; then try offline boot again.
22. Allow the existing offline boot process to complete or seek technical assistance.
23. This message is for information only; no action is needed.
24. Restore the specified TTY, or select another TTY that is ACT, or do not specify the TTY option, or use initialization level 3 or 4.
25. Change the state of this device to the state needed by `EXC:OFLBOOT`; try offline boot again.
26. Force a DFC; try offline boot again.
27. This message is for information only; no action is needed.
28. This message is for information only; no action is needed.
29. Change the state of this device to the state needed by `EXC:OFLBOOT`; try offline boot again.
30. This message is for information only; no action is needed.

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31. This message is for information only; no action is needed.
32. This message is for information only; no action is needed
33. See associated REPT:OFLBOOT message for explanation of error. Do NOT start a side switch without first seeking technical assistance.
34. Seek technical assistance.
35. Seek technical assistance.
36. Allow the existing offline boot process to complete or seek technical assistance.
37. Add another boot disk; try offline boot again.
38. Choose a valid TTY and try offline boot again.
39. Change the state of this device to the state needed by `EXC:OFLBOOT`; try offline boot again.
40. No action is needed.
41. Try offline boot again.
42. Try offline boot again.
43. The use of the UCL option is not recommended; please, try to reconfigure the system in such a way that the UCL option is not needed. Otherwise, seek technical assistance to manually construct a valid password file.
44. The use of the UCL option is not recommended; please, try to reconfigure the system in such a way that the UCL option is not needed. Otherwise, seek technical assistance, provide the encrypted password *k* to obtain a legal password, and try offline boot again.
45. The use of the UCL option is not recommended; please, try to reconfigure the system in such a way that the UCL option is not needed. Otherwise, seek technical assistance, provide the encrypted password *k* to obtain a legal password, and try offline boot again.
46. The use of the UCL option is not recommended; please, try to reconfigure the system in such a way that the UCL option is not needed. Otherwise, seek technical assistance, provide the encrypted password *k* to obtain a legal password, and try offline boot again.
47. Seek technical assistance.
48. Run audits ECD 1 and ECD 3. If the audits pass, try offline boot again.
49. This message is for information only; no action is needed.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

For a minor alarm, take action as indicated in the report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 690.
Format 2 has an OMDB key of 704 or 707.
Format 3 has an OMDB key of 705.
Format 4 has an OMDB key of 706.
Format 5 has an OMDB key of 699 or 708.

Appendix
`MEM-NUM-APPC`

Input Messages
`EXC:OFLBOOT`
`STOP:OFLBOOT`
`SW:OFLBOOT`

Output Messages
`REPT-OFFLINE`
`REPT-OFLBOOT`
`STOP-OFLBOOT`
`SW-OFLBOOT`

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . IN-F,APND
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `IN FILE APND COMPLETED`
a

[2] `IN FILE APND STOPPED`
b

2. REASON FOR OUTPUT

To report the result of executing an `IN:FILE;APND` input message to read and append text to a specified line of a file.

3. VARIABLE FIELD DEFINITIONS

a = The lines above and below the line appended.

b = Text explaining why the command was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates that the command executed successfully.

Format 2 can be printed due to several errors which the system may encounter. If the explanatory text indicates that the file cannot be accessed, use the `OP:STATUS;LISTDIR` input message to verify the existence of the file. If the explanatory text indicates that there is insufficient disk space to execute the command, use the `OP:STATUS;FREEDISK` input message to verify that there is free space in the file system under which the file being edited resides.

Seek technical assistance if the message is not self-explanatory.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 282.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
IN:F;APND
IN:F;DELT
IN:F;REPL
OP:ST;FRDISK
OP:ST;LSTDIR
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer RMV 3, Part 1 - PDSed*

ID . . . . . IN-F,DEL
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `IN FILE DEL COMPLETED`
a

[2] `IN FILE DEL STOPPED`
b

2. REASON FOR OUTPUT

To report the result of executing an `IN:FILE;DELT` input message to delete one or more lines of an ASCII file.

3. VARIABLE FIELD DEFINITIONS

a = The lines before and after the line deleted.

b = Text explaining why the command was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates that the command executed successfully.

Format 2 can be printed due to several errors which the system may encounter. If the explanatory text indicates that the file cannot be accessed, use the `OP:STATUS;LISTDIR` input message to verify the existence of the file. If the explanatory text indicates that there is insufficient disk space to execute the command, use the `OP:STATUS;FREEDISK` input message to verify that there is free space in the file system under which the file being edited resides.

Seek technical assistance if the message is not self-explanatory.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 282.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
DUMP:FILE;PARTL
IN:F;DEL
IN:F;REPL
OP:ST;FRDISK
OP:ST;LSTDIR
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer PMV 3, Part 1 - PDSed*

ID . . . . . IN-F,REPL
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `IN FILE REPL COMPLETED`
a

[2] `IN FILE REPL STOPPED`
b

2. REASON FOR OUTPUT

To report the result of executing an `IN:FILE;REPL` input message to replace one or more lines of a file.

3. VARIABLE FIELD DEFINITIONS

a = The lines above and below the line replaced.

b = Text explaining why the command was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates that the command executed successfully.

Format 2 can be printed due to several errors which the system may encounter. If the explanatory text indicates that the file cannot be accessed, use the `OP:STATUS;LISTDIR` input message to verify the existence of the file. If the explanatory text indicates that there is insufficient disk space to execute the command, use the `OP:STATUS;FREEDISK` input message to verify that there is free space in the file system under which the file being edited resides.

Seek technical assistance if the message is not self-explanatory.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 282.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
IN:F;DELT
IN:F;REPL
OP:ST;FRDISK
OP:ST;LSTDIR
```

Output Message

```
OP-STATUS,LISTDIR
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer RMV 3, Part 1 - PDSed*

ID . . . . . IN-FI,DIR
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `IN FILESYS DIR COMPLETED`

[2] `IN FILESYS DIR STOPPED`
`{CANNOT ACCESS` *a* `|`
`CANNOT MAKE DIRECTORY` *a* `|`
`CANNOT LINK` *a* `|`
`CANNOT CHANGE OWNER` *a*`}`

2. REASON FOR OUTPUT

To report the result of executing an `IN:FILESYS;DIR` input message to create a directory.

3. VARIABLE FIELD DEFINITIONS

a = Pathname specified in the message.

4. ACTION TO BE TAKEN

If `cannot access` prints, the pathname is not valid. If `cannot make directory` prints, there is a directory with that name. Use the `OP:STATUS;LISTDIR` input message to verify the situation.

The `cannot link` and `cannot change owner` messages are system-related errors. Seek technical assistance if either of these two messages is printed.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 282.

Input Messages
`CLR:F;DIR`
`CLR:F;FILE`
`IN:F;DIR`
`OP:ST;LSTDIR`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message
OP-ST,LSTDIR

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

Manual 5D5-105-210 *Routine Operations and Maintenance*

ID . . . . . IN-REM
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `IN REMOTE WAITING`

[2]
```
IN REMOTE IN PROGRESS
FILES RECEIVED: a IN PROGRESS
ELAPSED TIME b SPACE REMAINING c [IN PROGRESS]
INODES REMAINING d [IN PROGRESS]
[e ERROR f [IN PROGRESS]]
[CREAT ERRNO = g]
```

2. REASON FOR OUTPUT

Format 1 reports that the file-receive process is waiting for a session connect message from a remote sending site.

Format 2 reports totals for files successfully and unsuccessfully received from the Software Change Administration and Notification System (SCANS-2).

3. VARIABLE FIELD DEFINITIONS

a = Number of successfully received files.

b = Elapsed time in the form hours:minutes.

c = Number of blocks (512 bytes per block) remaining in the base directory on the receiving machine.

d = Number of inodes remaining in the base directory on the receiving machine.

e = Pathname of a file issued by the sending end which was not received by the file-receive process.

f = Error code specifying the reason why the file was not received by the file-receive process.

- 01 — Insufficient space on disk to store the file.
- 02 — File length exceeds the maximum length permitted (2,500,000 bytes).
- 03 — The pathname being processed matches that of a file already on disk.
- 04 — Could not create incoming file on disk.
- 05 — File transmission was interrupted.
- 06 — The system command `mkdir()` failed.

SEE PROPRIETARY NOTICE ON COVER PAGE

g = If the system command `creat()` failed (*f* = 4), then *g* is the value of errno set by `creat()`. For errno definitions, see the Appendix System Error.

4. ACTION TO BE TAKEN

Seek technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 540.

Output Appendix
`SYSERR`

Input Messages
`IN:REM;REPT`
`IN:REM;START`
`IN:REM;STOP`
`UPD:CLR`
`UPD:VFY`

Output Messages
`IN-REM,ERROR`
`IN-REM,INIT`
`IN-REM,START`
`IN-REM,STOP`
`UPD-CLR`
`UPD-VFY`

ID . . . . . IN-REM,ERROR
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
IN REMOTE ERROR a[b][, ERRNO = c]
[INVALID TRANSACTION ID: d]
[NO TRANSACTION ID]
[READ FAILED]
```

2. REASON FOR OUTPUT

To report the termination of the file-receive process due to an error that is unrelated to the actual transmission of files. This message may occur either before, during, or after the transmission of files. "inremote" refers to the process created when `IN:REMOTE;START` is entered.

3. VARIABLE FIELD DEFINITIONS

a = One of the following codes indicating the reason for termination:

- 01 — The file-receive process could not be executed.
- 02 — A bad argument was passed to the file-receive process.
- 03 — Time limit to establish the dial-up link has expired.
- 04 — Non-positive number of blocks was specified on the command line.
- 05 — Failed to connect to system port.
- 06 — Failed `stat` call on base directory.
- 07 — Failed `ustat` call on base directory.
- 08 — Insufficient disk space in base directory.
- 09 — Failed to read connect message, or received invalid connect message from the remote sending system. This message may be followed by a message indicating that `READ FAILED`, `NO TRANSACTION ID` was sent, or an `INVALID TRANSACTION ID` was sent. The latter will include the invalid ID which was sent, as noted below.
- 10 — An error occurred in the printing of file-receive output messages.
- 11 — An `IN:REMOTE;START` request was denied because a file-receive process already exists. Try the request again later.
- 12 — An `IN:REMOTE;REPT` or `IN:REMOTE;STOP` request failed because a message could not be sent to inremote or file-receive process.
- 13 — An `IN:REMOTE;REPT` or `IN:REMOTE;STOP` request failed because a message could not be sent to file-receive process or inremote.

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14 — Could not enable reception of messages.
15 — Could not send message from file-receive process to inremote.
16 — Bad message received by inremote.
17 — Bad message received by file-receive process.
18 — Unable to open software change and notification system (SCANS) data link.
19 — Unable to open equipment configuration database (ECD).
20 — Unable to get unit control block (UCB) record for SDL0.

b = Error code indicating an ECD access problem or database inconsistencies. The following error numbers may be printed if *a* = 18.

100 — SDL is not active
101 — no unit name listed as active in mdct record
102 — `stat()` failed
103 — `lla_rdget()` failed
104 — `lla_get()` failed
105 — `lla_iatt()` failed
106 — `getdbseg()` failed

c = The system error number. See the system error code output appendix, SYSERR. The system error number prints if *a* = 1, 5, 6, 7, 10, 14, or 15.

d = The invalid transaction ID received by the file-receive process.

4. ACTION TO BE TAKEN

Seek technical assistance. If required, cancel broadcast warning message (BWM) order and reorder later.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
This message has an OMDB key of 23.

Output Appendix
SYSERR

Input Message(s)
IN:REM;REPT
IN:REM;START
IN:REM;STOP
UPD:CLR
UPD:VFY

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message(s)

```
IN-REM,INIT
IN-REM,START
IN-REM,STOP
```

ID . . . . . IN-REM,INIT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
IN REMOTE INITIALIZED IP
TRANSACTION ID: a TIME: bb:bb
```

2. REASON FOR OUTPUT

To report initialization of the software change administration and notification system (SCANS-2) interface and to provide a transaction ID to be used when ordering broadcast warning messages (BWMs) from SCANS-2 within the next 24 hours.

3. VARIABLE FIELD DEFINITIONS

a = A transaction ID, from one to ten decimal digits and uppercase letters. This ID is supplied to SCANS-2 when BWMs are ordered. It is valid only for the next dial-in transmission of files, at which time SCANS-2 must present the transaction ID. If the ID time limit (24 hours) expires, the caller presents an invalid ID, or no ID, an `IN-REMOTE,ERROR` output message will be displayed.

b = The time at which a 24-hour timer began, in the form hours:minutes.

4. ACTION TO BE TAKEN

Provide the transaction ID to SCANS-2 when ordering the next delivery of BWMs. The order must be placed and SCANS-2 must dial in to the computer within 24 hours of the appearance of this message.

5. ALARMS

None.

6. REFERENCES

Input Messages

```
IN:REM;REPT
IN:REM;START
IN:REM;STOP
UPD:CLR
UPD:VFY
```

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
IN-REM,ERROR
IN-REM,STARTED
IN-REM,STOPPED
REPT-IN,REMOTE
UPD-CLR
UPD-VFY
```

ID . . . . . IN-REM,START
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
IN REMOTE STARTED IP
FILES STORED IN a IP
AVAILABLE SPACE b
```

2. REASON FOR OUTPUT

To report link establishment and the start of the receipt of remote-input files.

3. VARIABLE FIELD DEFINITIONS

a = The full pathname of the directory where the incoming files will be stored.

b = The current number of free blocks (512 bytes) of space in the directory on disk.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Messages

```
IN:REM;REPT
IN:REM;START
IN:REM;STOP
UPD:CLR
UPD:VFY
```

Output Messages

```
IN-REM,ERROR
IN-REM,INIT
IN-REM,STOP
```

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . IN-REM,STOP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
IN REMOTE STOPPED a
[FILES MAY BE LOST]
```

2. REASON FOR OUTPUT

To report the reason for termination of the file receiving process.

3. VARIABLE FIELD DEFINITIONS

a = One of the following codes indicating the reason for termination.

0 — Successful completion of the file transfer session.
1 — Time limit to receive messages from the remote system has expired.
2 — Unable to resynchronize messages with the remote sender.
3 — Unable to resynchronize files with the remote sender.
4 — Bad file sequence number.
5 — Insufficient disk space to store incoming files.
6 — Too many files interrupted.
7 — An internal error occurred in the process.
8 — The file receive process was terminated in response to the `IN:REM;STOP` input message.
9 — An I/O error occurred in writing a file to disk.
10 — The remote sender aborted transmission.
11 — The file receive process terminated for an unknown reason. This message is followed by the `FILES MAY BE LOST` output message indicating that the file receive session died in an unknown state.
12 — A bad disconnect message was received from the sender.
13 — The system command `mkdir()` failed.

4. ACTION TO BE TAKEN

Verify that all files have been received. If *a* = 11 - this message may be ignored if preceded by an `IN-REM,STOPPED` or `IN-REM,ERROR` output message.

5. ALARMS

None. This alarm is a manually-requested report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys
There are OMDB keys of 540 and 556.

Input Messages
```
IN:REM;REPT
IN:REM;START
IN:REM;STOP
UPD:CLR
UPD:VFY
```

Output Messages
```
IN-REM,ERROR
IN-REM,INIT
IN-REM,START
IN-REM,STOP
```

ID . . . . . IN:XFER
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
IN XFER  - a
     b  [c]
```

2. REASON FOR OUTPUT

To report the current state of the file transfer system, in response to an `IN:XFER` command.

3. VARIABLE FIELD DEFINITIONS

a = Status of file transfer system.

`COMPLETED`	= The file transfer session has ended.
`IN PROGRESS`	= The file transfer session is running.

b = Additional status information.

`DATA LINK ERRORS`	= The file transfer session was stopped due to errors from the data link.
`MANUALLY TERMINATED`	= The file transfer session was stopped by an `IN:XFER STOP` command.
`NO ERRORS`	= The file transfer session was stopped by the normal end of the session with a computer.
`NO PASSWORD`	= A session was attempted from the remote end, but the `IN:XFER START` command was not entered.
`PASSWORD-NO GOOD`	= The file transfer session was stopped because an incorrect password was entered at the remote end.
`RECEIVING`	= A session is in progress and is currently receiving the file *c*.
`RUNNING SHELL`	= A session is in progress and is currently executing shell commands.
`SENDING`	= A session is in progress and is currently sending the file *c*.
`WAITING`	= A session is in progress and is currently waiting for a support computer to respond.

c = Filename.

4. ACTION TO BE TAKEN

Inform the support person who requested the execution of `IN:XFER` of this output.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None.

6. REFERENCES

Input Message(s):
IN:XFER

ID . . . . . INH-AUD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `INH AUD COMPLETED`

[2] `INH AUD NOT STARTED`
`{CONFLICT WITH CURRENT SYSTEM STATUS` *a*`|RETRY LATER` *b*`|`
`UNABLE TO IDENTIFY ERROR INPUT ERROR}`

2. REASON FOR OUTPUT

To report the termination status of the `INH:AUD` input message.

3. VARIABLE FIELD DEFINITIONS

a = Explanation of error. See Output Audit Appendix C, `AUD-APPC`.

b = Explanation of error. See Output Audit Appendix D, `AUD-APPD`.

NOTE: See Output Audit Appendix A, `AUD-APPA` and Output Audit Appendix B, `AUD-APPB`, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

For Format 2, use the `OP:AUD` input message to determine the current system status.

5. ALARMS

None.

6. REFERENCES

Output Appendixes
- `AUD-APPA`
- `AUD-APPB`
- `AUD-APPC`
- `AUD-APPD`

Input Messages
- `INH:AUD`
- `OP:AUD`

SEE PROPRIETARY NOTICE ON COVER PAGE

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . INH-CONFLOG
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `INH CONFLOG COMPLETED`

[2] `INH CONFLOG NOT STARTED`
`INVALID ID FIELD` *a*

[3] `INH CONFLOG NOT STARTED`
`RETRY LATER`

2. REASON FOR OUTPUT

To report the termination status of the `INH:CONFLOG` input message.

3. VARIABLE FIELD DEFINITIONS

a = Message syntax is invalid or the unit name or number does not exist in the equipment configuration data base (ECD).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Messages
`ALW:CONFLOG`
`INH:CONFLOG`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . INH-DMQ
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has five formats.

[1] `INH DMQ COMPLETED`

[2] `INH DMQ CANNOT INHIBIT A MANUAL SOURCE` *a*

[3] `INH DMQ SOURCE ALL IS ALREADY INHIBITED`

[4] `INH DMQ TOO MANY ACTIVE INHIBITS`

[5] `INH DMQ CANNOT LCALL INHTIMER PROCESS` *a*
`FOR INHIBIT ERRNO =` *b*

2. REASON FOR OUTPUT

Format 1 reports maintenance input request administrator (MIRA) has completed a request to inhibit a source of automatic maintenance requests.

Format 2 indicates MIRA does not inhibit manual source of maintenance requests - *a*.

Format 3 indicates source `ALL` is already inhibited.

Format 4 reports there are too many active inhibits. Cannot inhibit any more.

Format 5 reports MIRA could not start inhibit timer for automatic maintenance request source a.

3. VARIABLE FIELD DEFINITIONS

a = Three-character name of the source specified in the `INH:DMQ` input message. `ALL` indicates all automatic maintenance requests are inhibited.

b = System error number returned for the failing system call. See System Error Codes Output Appendix, `SYSERR-APP`.

4. ACTION TO BE TAKEN

Use the `OP:DMQ` input message to determine which maintenance sources are inhibited.

For Formats 1 and 3, no action is required.

For Format 2, check syntax of source - *a*.

For Format 4, use ALW:DMQ to allow some of the inhibited sources and retry message.

For Format 5, retry the input message. If retry is unsuccessful, an operating system function call is failing; seek technical assistance to clear the trouble.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1 and 2 have an OMDB key of 62.
Formats 3 and 4 have an OMDB key of 63.
Format 5 has an OMDB key of 65.

Output Appendix
SYSERR-APP

Input Messages
ALW:DMQ
INH:DMQ
OP:DMQ

Output Messages
ALW-DMQ
OP-DMQ

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . INH-EAIINT
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `INH EAIINT` *a* `COMPLETED`

[2] `INH EAIINT` *a* `COMPLETED WITH` *c*

[3] `INH EAIINT` *a* `ABORTED` *b*

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit emergency action interface (EAI) error interrupts on a specified 3B21D computer control unit (CU), or on both 3B21D computer CUs.

NOTE: The 3B20D computer CUs do not have EAI error interrupts.

Format 1 indicates successful completion.

Format 2 indicates successful completion with a message port problem.

Format 3 indicates an error.

3. VARIABLE FIELD DEFINITIONS

a = One of the following: CU 0, CU 1, or CU 0 and CU 1.

b = One of the following error codes:

`50` — message could not be sent to a driver or real time status (RTS) report
`51` — equipment configuration data base (ECD) access function completed unsuccessfully
`52` — error in message communication
`53` — error internal to the inhibit administrator

c = One of the following port problems:

`AN INVALID SYSTEM PORT SPECIFIED`
`AN INVALID SYSTEM PORT SPECIFIED FOR AIM` (application integrity monitor)
`NO PROCESS ATTACHED TO THE SPECIFIED PORT`
`NO PROCESS ATTACHED TO THE AIM PORT`

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

For Format 1, no action is necessary.

For Format 2, seek technical assistance.

For Format 3, use the `OP:ERRCHK` input message to learn the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

5. ALARMS

None. This report is either a manually-requested report or an automatically-generated report for information only.

6. REFERENCES

OMDB Key(s)
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 658.
Format 3 has an OMDB key of 414.

Input Message(s)

```
ALW:EAIINT
ALW:ERRCHK
INH:EAIINT
INH:ERRCHK
OP:ERRCHK
```

Output Message(s)

```
ALW-EAIINT
ALW-ERRCHK
INH-ERRCHK
OP-ERRCHK
```

ID . . . . . INH-ERRCHK-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `INH ERRCHK COMPLETED`

[2] `INH ERRCHK ABORTED` *a*

[3] `INH ERRCHK NOT STARTED`
`INVALID ID FIELD`

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit all computer error sources.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes:

50 — A message could not be sent to a driver or real time status report (RTS).

51 — An equipment configuration data base (ECD) access function completed unsuccessfully.

52 — An error in message communication.

53 — An error internal to the inhibit administrator.

55 — An invalid system port was specified.

56 — No process is attached to the specified port.

4. ACTION TO BE TAKEN

If an error was reported, use the `OP:ERRCHK` input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a technical representative.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 414.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
ALW:ERRCHK
INH:ERRCHK
OP:ERRCHK
```

Output Messages

```
ALW-ERRCHK
OP-ERRCHK
```

ID . . . . . INH-ERRCHK-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `INH ERRCHK COMPLETED`

[2] `INH ERRCHK COMPLETED WITH` *b*

[3] `INH ERRCHK ABORTED` *a*

[4] `INH ERRCHK NOT STARTED`
`INVALID ID FIELD`

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit all computer error sources.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes.

`50` — A message could not be sent to a driver or real time status report (RTS).

`51` — An equipment configuration data base (ECD) access function completed unsuccessfully.

`52` — An error in message communication.

`53` — An error internal to the inhibit administrator.

b = One of the following port problems.

— Invalid system port specified.

— Invalid system port specified for application integrity monitor (AIM).

— No process attached to the specified port.

— No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the `OP:ERRCHK` input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a technical representative.

If the process completes with a port problem, the user should seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This is either a manually-requested report or is automatically generated for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 658.
Format 3 has an OMDB key of 414.

Input Messages
ALW:ERRCHK
INH:ERRCHK
OP:ERRCHK

Output Messages
INH-ERRCHK
OP-ERRCHK

ID . . . . . INH-ERRCHK-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `INH ERRCHK COMPLETED`

[2] `INH ERRCHK COMPLETED WITH` *b*

[3] `INH ERRCHK ABORTED` *a*

[4] `INH ERRCHK NOT STARTED`
`INVALID ID FIELD`

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit all computer error sources.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes:

- `50` — message could not be sent to a driver or real time status report (RTS)
- `51` — equipment configuration data base (ECD) access function completed unsuccessfully
- `52` — error in message communication
- `53` — error internal to the inhibit administrator

b = One of the following port problems:

- — invalid system port specified
- — invalid system port specified for application integrity monitor (AIM)
- — no process attached to the specified port
- — no process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the `OP:ERRCHK` input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

If the process completes with a port problem, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

For format 1, none. This report is a manually-requested report.

For formats 2 and 3, none. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 658.
Format 3 has an OMDB key of 414.

Input Messages
ALW:ERRCHK
INH:ERRCHK
OP:ERRCHK

Output Messages
INH-ERRCHK
OP-ERRCHK

ID . . . . . INH-ERRINT-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `INH ERRINT COMPLETED`

[2] `INH ERRINT ABORTED` *a*

[3]
```
INH ERRINT NOT STARTED
INVALID ID FIELD - INPUT ERROR
```

[4]
```
ALW ERRINT NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS - UNEQUIPPED UNIT
```

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit error interrupts on a particular hardware unit/complex, or on all hardware units.

Format 1 indicates successful completion.

Format 2 indicates an error.

Format 3 indicates an error in the identification field of the input. Possibly, the unit name and number specified cannot be found in the data base.

Format 4 indicates unit name and number specified was found in the data base, but is unequipped.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes:

- 50 — A message could not be sent to a driver or real time status (RTS) report.
- 51 — An equipment configuration data base (ECD) access function completed unsuccessfully.
- 52 — An error in message communication.
- 53 — An error internal to the inhibit administrator.
- 55 — An invalid system port was specified.
- 56 — No process is attached to the specified port.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

For Formats 1, 3, and 4, no action is necessary.

For Format 2, use the `OP:ERRCHK` input message to learn the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

5. ALARMS

None. This report is either a manually-requested report or is automatically generated for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 414.

Input Messages
`ALW:ERRINT`
`INH:ERRINT`
`OP:ERRCHK`

Output Messages
`ALW-ERRINT`
`OP-ERRCHK`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . INH-ERRINT-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has five formats.

[1] `INH ERRINT COMPLETED`

[2] `INH ERRINT COMPLETED WITH` *b*

[3] `INH ERRINT ABORTED` *a*

[4]
```
INH ERRINT NOT STARTED
INVALID ID FIELD - INPUT ERROR
```

[5]
```
ALW ERRINT NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS - UNEQUIPPED UNIT
```

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit error interrupts on a particular hardware unit/complex, or on all hardware units.

Format 1 indicates successful completion.

Format 2 indicates successful completion with a message port problem.

Format 3 indicates an error.

Format 4 indicates an error in the identification field of the input. Possibly, the unit name and number specified cannot be found in the data base.

Format 5 indicates unit name and number specified was found in the data base, but is unequipped.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes:

- `50` — A message could not be sent to a driver or real time status (RTS) report.
- `51` — An equipment configuration data base (ECD) access function completed unsuccessfully.
- `52` — An error in message communication.
- `53` — An error internal to the inhibit administrator.

SEE PROPRIETARY NOTICE ON COVER PAGE

b = One of the following port problems:

```
AN INVALID SYSTEM PORT SPECIFIED
AN INVALID SYSTEM PORT SPECIFIED FOR AIM
 (application integrity monitor)
NO PROCESS ATTACHED TO THE SPECIFIED PORT
NO PROCESS ATTACHED TO THE AIM PORT
```

4. ACTION TO BE TAKEN

For Formats 1, 4, and 5, no action is necessary.

For Format 2, seek technical assistance.

For Format 3, use the OP:ERRCHK input message to learn the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

5. ALARMS

None. This report is either a manually-requested report or is automatically generated for information only.

6. REFERENCES

OMDB Key(s)
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 658.
Format 3 has an OMDB key of 414.

Input Message(s)
ALW:ERRCHK
INH:ERRCHK
OP:ERRCHK

Output Message(s)
INH-ERRCHK
OP-ERRCHK

ID . . . . . INH-ERRSRC-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `INH ERRSRC COMPLETED`

[2] `INH ERRSRC ABORTED` *a*

[3] `INH ERRSRC NOT STARTED`
`INVALID ID FIELD`

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit the processing of errors under a control unit (CU) pseudo-node.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes.

50 — A message could not be sent to a driver or real time status report (RTS).

51 — An equipment configuration data base (ECD) access function completed unsuccessfully.

52 — An error in message communication.

53 — An error internal to the inhibit administrator.

55 — An invalid system port was specified.

56 — No process is attached to the specified port.

4. ACTION TO BE TAKEN

If an error was reported, use the `OP:ERRCHK` input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a technical representative.

5. ALARMS

None. This is either a manually-requested report or is automatically generated for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 414.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
ALW:ERRSRC
INH:ERRSRC
OP:ERRCHK
```

Output Messages

```
ALW-ERRSRC
OP-ERRCHK
```

ID . . . . . INH-ERRSRC-B
GENERIC . . . . . UNIX RTR R6.4, R21.3
R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `INH ERRSRC COMPLETED`

[2] `INH ERRSRC COMPLETED WITH` *b*

[3] `INH ERRSRC ABORTED` *a*

[4] `INH ERRSRC NOT STARTED`
`INVALID ID FIELD`

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit the processing of errors under a control unit (CU) pseudo-node.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes.

`50` — A message could not be sent to a driver or real time status report (RTS).

`51` — An equipment configuration data base (ECD) access function completed unsuccessfully.

`52` — An error in message communication.

`53` — An error internal to the inhibit administrator.

b = One of the following port problems.

— Invalid system port specified.

— Invalid system port specified for application integrity monitor (AIM).

— No process attached to the specified port.

— No process attached to the AIM port.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

If an error was reported, use the OP:ERRCHK input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a technical representative.

If the process completes with a port problem, the user should seek technical assistance.

5. ALARMS

None. This is either a manually-requested report or is automatically generated for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 658.
Format 3 has an OMDB key of 414.

Input Messages
ALW:ERRCHK
INH:ERRCHK
OP:ERRCHK

Output Messages
INH-ERRCHK
OP-ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . INH-F,UMOUNT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `INH FILESYS UMOUNT COMPLETED`

[2] `INH FILESYS UMOUNT STOPPED`
a

2. REASON FOR OUTPUT

To report the result of executing an `INH:FILESYS;UMOUNT` input message to unmount a previously mounted file system.

Format 1 indicates that the action was completed.

Format 2 indicates that the action was terminated.

3. VARIABLE FIELD DEFINITIONS

a = Description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success, and requires no action.

Format 2 indicates the command has failed. The explanatory text will indicate the error encountered. Refer to the input message manual for the correct format and reenter the command, or check the status of the file using the `OP:STATUS;LISTDIR` input message.

Seek technical assistance if any other error message is printed.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 282.
Format 2 has an OMDB key of 288.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
ALW:F;MOUNT
INH:F;UMOUNT
OP:ST;FILESYS
OP:ST;LSTDIR
```

Output Messages

```
OP-ST,FILESYS
OP-ST,LSTDIR
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

ID . . . . . INH-HDWCHK-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `INH HDWCHK COMPLETED`

[2] `INH HDWCHK ABORTED` *a*

[3] `INH HDWCHK NOT STARTED`
`INVALID ID FIELD`

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit hardware checks.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes.

50 — A message could not be sent to a driver or real time status report (RTS).

51 — An equipment configuration data base (ECD) access function completed unsuccessfully.

52 — An error in message communication.

53 — An error internal to the inhibit administrator.

55 — An invalid system port was specified.

56 — No process is attached to the specified port.

4. ACTION TO BE TAKEN

If an error was reported, use the `OP:ERRCHK` input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a technical representative.

5. ALARMS

None. This is either a manually-requested report or is automatically generated for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 414.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
ALW:HDWCHK
INH:HDWCHK
OP:ERRCHK
```

Output Messages

```
ALW-HDWCHK
OP-ERRCHK
```

ID . . . . . INH-HDWCHK-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `INH HDWCHK COMPLETED`

[2] `INH HDWCHK COMPLETED WITH` *b*

[3] `INH HDWCHK ABORTED` *a*

[4] `INH HDWCHK NOT STARTED`
`INVALID ID FIELD`

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit hardware checks.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes.

`50` — A message could not be sent to a driver or real time status report (RTS).

`51` — An equipment configuration data base (ECD) access function completed unsuccessfully.

`52` — An error in message communication.

`53` — An error internal to the inhibit administrator.

b = One of the following port problems.

— Invalid system port specified.

— Invalid system port specified for application integrity monitor (AIM).

— No process attached to the specified port.

— No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the `OP:ERRCHK` input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a technical representative.

If the process completes with a port problem, the user should seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This is either a manually-requested report or is automatically generated for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 658.
Format 3 has an OMDB key of 414.

Input Messages
ALW:ERRCHK
INH:ERRCHK
OP:ERRCHK

Output Messages
INH-ERRCHK
OP-ERRCHK

ID . . . . . INH-REX
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `INH REX COMPLETED`

[2]
```
INH REX NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS
|RETRY LATER }
```

2. REASON FOR OUTPUT

To report the termination status of the `INH:REX` input message.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

For Format 1, no action is needed.

For Format 2, `CONFLICT WITH CURRENT SYSTEM STATUS` indicates that temporary routine exercise (REX) inhibits are not available for the unit specified, or all the units specified due to active permanent REX inhibit(s). Use the `OP:REXINH` input message with the `PERM` option to determine the current permanent REX inhibits.

`RETRY LATER` indicates that the database manager or a database record could not be opened; try again at a later time. If this persists, seek technical assistance.

5. ALARMS

None.

6. REFERENCES

Input Messages
- `INH:REX`
- `OP:REXINH`

Output Message
- `OP-REXINH`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . INH-SCSD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `INH SCSD UNIT` *a* `PT` *b*[*bbbbbbb*] *f*

[2] `INH SCSD GRPN` *c* `DUPID` *d* `PT` *e*[*eeeee*] *f*

[3]
```
INH SCSD NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS
```

2. REASON FOR OUTPUT

To indicate whether a scan point was disabled as a result of executing an `INH:SCSD` input message. This prevents the reporting of a scan point's transitions.

Format 1 is used when a scan point is identified by physical location.

Format 2 is used when a scan point is identified by logical address.

Format 3 indicates the scanner and signal distributor (SCSD) administration process is not active. No communication with SCSD points is possible.

3. VARIABLE FIELD DEFINITIONS

a = Member number of scanner and signal distributor (SCSD) unit.

b = Physical scan point number on an SCSD (0-47).

c = Name of the logical group.

d = Duplex group ID (0 or 1).

e = Number of a point within a logical group.

SEE PROPRIETARY NOTICE ON COVER PAGE

f = Termination status:

`FAILED` — Action could not be completed by SCSD administrator.

Possible reasons for failure are:

— SCSD unit number is invalid.

— Point number is invalid for the logical group.

— Logical group name is invalid and either the SCSD unit is out-of-service (OOS) or is in an inactive state to the SCSD administrator.

`COMPLETED` — Action completed.

4. ACTION TO BE TAKEN

Issue the `OP:OOS` input message to determine if the SCSD unit is listed as out-of-service. Otherwise, enter recent change and verify (RC/V) to verify input message arguments.

If logical addressing is used, check that the logical group name exists and/or the point number is contained in the logical group. If physical addressing is used, verify that the SCSD unit is equipped.

If the above results are negative, seek technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 229.

Input Messages
`INH:SCSD`
`OP:OOS`

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . INH-SFTCHK-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `INH SFTCHK COMPLETED`

[2] `INH SFTCHK ABORTED` *a*

[3] `INH SFTCHK NOT STARTED`
`INVALID ID FIELD`

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit software checks.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes.

50 — A message could not be sent to a driver or real time status report (RTS).

51 — An equipment configuration data base (ECD) access function completed unsuccessfully.

52 — An error in message communication.

53 — An error internal to the inhibit administrator.

55 — An invalid system port was specified.

56 — No process is attached to the specified port.

4. ACTION TO BE TAKEN

If an error was reported, use the `OP:ERRCHK` input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a technical representative.

5. ALARMS

None. This is either a manually-requested report or is automatically generated for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 416.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
ALW:SFTCHK
INH:SFTCHK
OP:ERRCHK
```

Output Messages

```
ALW-SFTCHK
OP-ERRCHK
```

ID . . . . . INH-SFTCHK-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `INH SFTCHK COMPLETED`

[1] `INH SFTCHK COMPLETED WITH` *b*

[2] `INH SFTCHK ABORTED` *a*

[3] `INH SFTCHK NOT STARTED`
`INVALID ID FIELD`

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit computer software checks.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes.

`50` — A message could not be sent to a driver or real time status report (RTS).

`51` — An equipment configuration data base (ECD) access function completed unsuccessfully.

`52` — An error in message communication.

`53` — An error internal to the inhibit administrator.

b = One of the following port problems.

— Invalid system port specified.

— Invalid system port specified for application integrity monitor (AIM).

— No process attached to the specified port.

— No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the `OP:ERRCHK` input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a technical representative.

If the process completes with a port problem, the user should seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This is either a manually-requested report or is automatically generated for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 406.
Format 2 has an OMDB key of 658.
Format 3 has an OMDB key of 414.

Input Messages
ALW:ERRCHK
INH:ERRCHK
OP:ERRCHK

Output Messages
INH-ERRCHK
OP-ERRCHK

ID . . . . . INH-UMEM
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`INH UMEM` *a* `WAS` *b* `NOW` *c* *#d*

2. REASON FOR OUTPUT

To report that the transfer trace entered the `STOPPED` state either as the result of an `INH:UMEM` input message or the `STOP FULL` directive of the `INIT:UMEM` input message. The two cases can be distinguished by the 'priority of action' field which will be either `M` or `A`, respectively.

3. VARIABLE FIELD DEFINITIONS

a = Status of the operation.

- `COMPLETED` — The trace has stopped monitoring the flow of execution.
- `NOT STARTED` — The operation was ignored because the trace was not running.
- `STOPPED UCERR` — The utility circuit either does not respond or does not match the circuit present when the trace was defined.

b = State of the trace before the operation was attempted.

- `DUMPED` — The trace was not running and its data had already been dumped.
- `NEW` — The trace was not running and did not have data.
- `RUNNING` — The trace was collecting data.
- `STOPPED` — The trace was not running and did have data.
- `UNDEF` — No trace was defined.

c = State of the trace after the operation was attempted.

- `DUMPED` — The trace is not running and its data had already been dumped.
- `NEW` — The trace is not running and does not contain data.
- `STOPPED` — The trace is stopped and does contain data.
- `UNDEF` — No trace is defined.

d = Generic access package (GRASP) execution sequence number.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

If *a* is `STOPPED UCERR`, check the utility circuit hardware. After it is fixed, use the `INIT:UC` input message to reinitialize the circuit.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
This message has an OMDB key of 498.

Input Messages
`ALW:UMEM`
`INH:UMEM`
`INIT:UC`
`INIT:UMEM`
`OP:UTIL`

Output Message
`OP-UTIL`

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . INH-UTIL
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`INH UTIL` *a #b*

2. REASON FOR OUTPUT

To indicate the disposition of an `INH:UTIL` input message or report generic access package (GRASP) dynamic time overload.

3. VARIABLE FIELD DEFINITIONS

a = Termination status.

`COMPLETED` — The action associated with breakpoints will not be executed when the breakpoint conditions occur.

`COMPLETED EAI` — All defined breakpoints were inhibited by a request from application integrity monitor (AIM).

`COMPLETED OVERLOAD` — All defined breakpoints were automatically inhibited because of GRASP overload (due to breakpoints or trace processing). This message will appear when an overload condition occurs, even if no breakpoints are currently defined.

`STOPPED UCERR` — The operation was completed successfully for software breakpoints but the utility circuit either does not respond or does not match the circuit present when the hardware breakpoints were defined.

b = GRASP execution sequence number.

4. ACTION TO BE TAKEN

If *a* is `COMPLETED OVERLOAD`, re-enable selected breakpoints and clear the others, or increase the dynamic time limit.

SEE PROPRIETARY NOTICE ON COVER PAGE

If *a* is `STOPPED UCERR`, check the utility circuit hardware. After it is fixed, use the `INIT:UC` input message to reinitialize the circuit.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
There is an OMDB key of 497.

Input Messages
```
ALW:UTIL
ALW:UTILFLAG
CLR:UTILFLAG
IN:DTIME
INH:UTIL
INH:UTILFLAG
INIT:UC
OP:UTIL
```

Output Message
```
OP-UTIL
```

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . INH-UTILFLAG
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`INH UTILFLAG` *a b #c*

2. REASON FOR OUTPUT

To indicate the disposition of an `INH:UTILFLAG` input message.

3. VARIABLE FIELD DEFINITIONS

a = Numeric identifier (one or more decimal digits) for the breakpoint that was inhibited.

b = Termination status.

`COMPLETED` — The actions associated with the breakpoint will not be executed when the breakpoint conditions occur.

`STOPPED UCERR` — The utility circuit either does not match the circuit present or does not respond when the breakpoint is defined.

c = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If *a* is `STOPPED UCERR`, check the utility circuit hardware. After it is fixed, use the `INIT:UC` input message to reinitialize the circuit.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
There is an OMDB key of 494.

Input Messages
`ALW:UTIL`
`ALW:UTILFLAG`
`INH:UTILFLAG`
`INIT:UC`
`OP:UTIL`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message
OP-UTIL

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . INIT-MHD-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has two formats.

```
[1]    INIT MHD a{ NOT STARTED b c |
             STOPPED  b c |
             ERROR  b c |
             ABORTED b |
             STARTED  |
             COMPLETED |
             IN PROGRESS }

[2]    INIT MHD a EARLY TERM  VFY FAILED d
         TRACK/CYL/HD/SC TRACK/CYL/HD/SC TRACK/CYL/HD/SC
          e  f g h  [e  f g h] [e  f g h]
         TRACK/CYL/HD/SC
          [e  f g h]
```

2. REASON FOR OUTPUT

To report the result of executing an `INIT:MHD` input message. See the ACTION TO BE TAKEN section for the explanation of why and when each output message format will be used.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the moving head disk (MHD) drive.

b = Process step or reason code.

- f03 — failed to fopen `/tmp file`
- f04 — `fseek` failed on the output file
- f06 — cannot open equipment configuration database (ECD)
- f09 — cannot get UCB by name
- f12 — cannot reserve UCB
- f15 — cannot assign special device file name
- f18 — cannot open special device file
- f21 — cannot set I/O mode of device file
- f24 — cannot enable message reception
- f27 — see DFCDRV error report
- f30 — DFC is not in S_ACT store
- f33 — MHD size not recognized
- f36 — see DFCDRV error report
- f39 — see DFCDRV error report
- f42 — DFC RAM read failed

SEE PROPRIETARY NOTICE ON COVER PAGE

f45 — `vfy` data overwritten - repeat input request starting from track number
f48 — `lseek` to "combined" defect table failed
f51 — first read of defect table failed
f54 — `lseek` to "combined" defect table failed
f57 — second read of defect table failed
f60 — message to port failure
f63 — message reception failure
f66 — process timed out
f69 — failed to close special device file
f72 — failed to release special device file
f75 — failed to unreserve UCB
f78 — failed to close ECD
f81 — terminated externally with signal number

c = System error code. See System Error Codes Output Appendix, SYSERR-APP.

d = Number of failures (bad sectors) found during the verify step.

e = Relative track number of the indicated bad sector. The track number is relative to the beginning of the disk. It is calculated using all tracks of the disk excluding those tracks mapped out by defect management.

f = Physical cylinder number of the indicated bad sector. This number is calculated using all tracks of the disk including those mapped out by defect management.

g = Physical head number of the indicated bad sector. This number is calculated using all tracks of the disk including those mapped out by defect management.

h = Sector number in use when the failure occurred. It is a relative number 0 to 31.

4. ACTION TO BE TAKEN

Noncompletion termination reports that provide an error code usually indicate a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried.

A termination report that specifies a verification failure indicates that format information on the MHD disk pack could not be read or is incorrect and could not be corrected. This MHD and disk pack should NOT be used until the problem is corrected. The HEAD and TRACK information is output to provide data in helping to determine if the problem is in the MHD (head alignment) or in the disk pack (bad surface).

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

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5. ALARMS

This alarm is either a manually-requested report or an automatically-generated report for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 147, 148, and 149.
Format 2 has an OMDB key of 146.

Output Appendix
`SYSERR-APP`

Input Messages
`INIT:MHD`
`LOAD:MHD;DEFECT`
`VFY:MHD`

Output Messages
`LOAD-MHD,DEFECT`
`VFY-MHD`

ID . . . . . INIT-MHD-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has three formats.

```
[1]    INIT MHD a{ NOT STARTED b c |
             STOPPED b c |
             ERROR b c |
             ABORTED b c |
             STARTED |
             COMPLETED |
             IN PROGRESS }

[2]    INIT MHD a EARLY TERM  VFY FAILED d
        TRACK/CYL/HD/SC TRACK/CYL/HD/SC TRACK/CYL/HD/SC TRACK/CYL/HD/SC
         e  f g h  [e  f g h] [e  f g h] [e  f g h]

[3]    INIT MHD a EARLY TERM  VFY FAILED d
        BLOCKS   BLOCKS   BLOCKS   BLOCKS
         i    [i]   [i]   [i]
```

2. REASON FOR OUTPUT

To report the status of a request to format a moving head disk (MHD).

If the format process was invoked via the `INIT MHD` poke on the disk file storage access (DFSA) display page during disk independent operation (DIOP) mode, a `REPT-DKDIP` message will precede the output message line.

3. VARIABLE FIELD DEFINITIONS

a = MHD member number.

b = Process step or reason code.

f01 — failed to `fopen() /tmp` file
f03 — `fseek()` failed on the output file
f06 — failed to open ECD
f09 — failed to get UCB by name

SEE PROPRIETARY NOTICE ON COVER PAGE

f0a — `TRACK` or `BLOCK` or `NEW` are not valid for small computer system interface (SCSI) MHD
f0c — `TRACK` is not valid for SCSI MHD
f0e — single block format not allowed for SCSI disk
f12 — `BLOCK` is not valid for storage module device (SMD) MHD
f18 — failed to reserve UCB
f1b — failed to assign special device file name
f1d — failed to open device file
f21 — failed to set I/O mode of device file
f24 — failed to enable message reception
f27 — see DKDRV report on the ROP
f30 — DFC is not in S_ACT state
f33 — MHD size not recognized
f36 — see DKDRV report on the ROP
f37 — DKDIP virtual address translation failure
f39 — see DKDRV report on the ROP
f42 — DFC RAM read failed
f45 — verify data overwritten - repeat input request starting from track number
f46 — start block greater than LBA
f47 — see DKDRV report on the ROP
f48 — DKDIP virtual address translation failure
f49 — see DKDRV report on the ROP
f4c — read of the DFC head UPT failed
f4e — see DKDRV report on the ROP
f52 — read of the DFC firmware UPT failed
f55 — failed to get UCB of the MHD's SBUS by RID
f58 — see DKDRV report on the ROP
f5b — read of the verify failure data failed
f5e — invalid verify data
f63 — `lseek()` to "combined" defect table failed
f64 — DKDIP virtual address translation failure
f66 — first read of defect table failed
f69 — `lseek()` to "combined" defect table failed
f6a — DKDIP virtual address translation failure
f6c — second read of defect table failed
f6e — message to port failure
f71 — message reception failure
f72 — manual abort requested
f73 — manual abort requested
f74 — process timed out
f78 — failed to close special device file
f7c — failed to release special device file
f7f — failed to unreserve UCB
f83 — failed to close ECD
f86 — terminated externally with signal
f94 — see DKDRV report on the ROP
f99 — message to port failure
f9c — message reception failure
f9f — see DKDRV report on the ROP

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fa1 — failed to get the segment number
fa5 — SCSI "inquiry" command failed
fa9 — failed to get the segment number
fb1 — SCSI "mode sense" command failed
fb2 — data overflow - too many block descriptors
fb5 — failed to get the segment number
fb9 — SCSI "mode select" command failed
fc1 — see DKDRV report on the ROP
fc6 — failed to get the segment number
fc9 — SCSI "read capacity" command failed

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

d = Number of failures (bad sectors for SMD MHD or bad blocks for SCSI MHD) found during the verify step.

e = Relative track number of the indicated bad sector. The track number is relative to the beginning of the disk. It is calculated using all tracks of the disk excluding those tracks mapped out by defect management. This variable field only applies to an SMD MHD.

f = Physical cylinder number of the indicated bad sector. This number is calculated using all tracks of the disk including those mapped out by defect management. This variable field only applies to an SMD MHD.

g = Physical head number of the indicated bad sector. This number is calculated using all tracks of the disk including those mapped out by defect management. This variable field only applies to an SMD MHD.

h = Sector number in use when the failure occurred. It is a relative number from 0 to 31. This variable field only applies to an SMD MHD.

i = Logical disk block number of the bad disk block found on the SCSI disk drive during the verify stage.

4. ACTION TO BE TAKEN

Noncompletion termination reports that provide an error code usually indicate a system resource was not available or became unavailable to perform the requested task. Clear the resource limitation problem and input the request again.

A termination report that specifies a verification failure means that the indicated disk or sectors or blocks had uncorrectable data errors or that the format information contained in the sector headers was not as expected. This MHD and disk pack should NOT be used until the problem is corrected. If the pack is an SMD drive, the HEAD and TRACK information is output to provide data in helping to determine if the problem is in the MHD (head alignment) or in the disk pack (bad surface). If the disk is an SCSI drive, the BLOCK information is output for possible use by the SCSI embedded controller to reassign to a good disk block.
A termination report specifying completion indicates that all directives of the input request

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were done and no failures were encountered.

5. ALARMS

This alarm may be a manually-requested report, or an automatically-generated report for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 147, 148 and 149.
Format 2 has an OMDB key of 146.
Format 3 has an OMDB key of 569.

Output Appendix
SYSERR-APP

Input Messages
INIT:MHD
LOAD:MHD
VFY:MHD

Output Messages
REPT-DKDIP
VFY-MHD

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ID . . . . . INIT-MHD-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has four formats.

[1] `INIT MHD` *a* { `NOT STARTED` *b c* |
`STOPPED` *b c* |
`ERROR` *b c* |
`ABORTED` *b c* |
`STARTED` |
`COMPLETED` |
`IN PROGRESS` }

[2] `INIT MHD` *a* `EARLY TERM VFY FAILED` *d*
`TRACK/CYL/HD/SC TRACK/CYL/HD/SC TRACK/CYL/HD/SC TRACK/CYL/HD/SC`
e f g h [*e f g h*] [*e f g h*] [*e f g h*]

[3] `INIT MHD` *a* `EARLY TERM VFY FAILED` *d*
`BLOCKS BLOCKS BLOCKS BLOCKS`
i [*i*] [*i*] [*i*]

[4] `INIT MHD` *a* `ABORTED` *b*
`ERROR DATA` *j k l m n*

2. REASON FOR OUTPUT

To report the status of a request to format a moving head disk (MHD).

This report may be invoked by either executing an `INIT:MHD` input message or by poking `INIT MHD`.

If the format process was invoked via the `INIT MHD` poke on the DFSA display page during disk independent operation (DIOP) mode, a `REPT-DKDIP` message will precede the output message.

Format 4 provides additional error information when an explicit small computer system interface (SCSI) command fails. The additional error data is necessary to determine the exact cause of the error condition.

3. VARIABLE FIELD DEFINITIONS

a = MHD member number.

b = Process step or reason code.

f01 — failed to `fopen() /tmp` file
f03 — `fseek()` failed on the output file
f04 — failed to open ECD
f05 — failed to get UCB by name
f06 — failed to get UCB of controlling unit
f07 — controlling unit is not active
f09 — MHD size not recognized
f0a — `TRACK`, `BLOCK`, or `NEW` are not valid for SCSI MHD
f0c — `TRACK` is not valid for SCSI MHD
f42 — `BLOCK` is not valid for storage module device (SMD) MHD
f13 — failed to get top UCB
f14 — top UCB is not a DFC
f15 — unknown DFC type
f18 — failed to reserve UCB
f1b — failed to assign special device file name
f1d — failed to open device file
f21 — failed to set I/O mode of device file
f24 — failed to enable message reception
f27 — see DKDRV report on the ROP
f30 — Head UPT address is not available
f36 — see DKDRV report on the ROP
f37 — DKDIP virtual address translation failure
f39 — see DKDRV report on the ROP
f42 — DFC RAM read failed
f45 — VFY data overwritten - repeat input request starting from track number
f46 — start block greater than the LBA
f47 — see DKDRV report on the ROP
f48 — DKDIP virtual address translation failure
f49 — see DKDRV report on the ROP
f4c — read of the DFC head UPT failed
f4e — see DKDRV report on the ROP
f52 — read of the DFC firmware UPT failed
f55 — failed to get UCB of the MHD's SBUS by RID
f58 — see DKDRV report on the ROP
f5b — read of the verify failure data failed
f5e — invalid verify data
f63 — `lseek()` to "comb" defect table failed
f64 — DKDIP virtual address translation failure
f66 — first read of defect table failed
f69 — `lseek()` to "comb" defect table failed
f6a — DKDIP virtual address translation failure
f6c — second read of defect table failed
f6e — message to port failure
f71 — message reception failure
f72 — manual abort requested
f73 — manual abort requested
f74 — process timed out

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f78 — failed to close special device file
f7c — failed to release special device file
f7f — failed to unreserve UCB
f83 — failed to close ECD
f86 — terminated externally with signal
f94 — see DKDRV report on the ROP
f99 — message to port failure
f9c — message reception failure
f9f — see DKDRV report on the ROP
fa1 — failed to get the segment number
fa5 — SCSI "inquiry" command failed
fa7 — SCSI "inquiry" command data underflow
fa9 — failed to get the segment number
fb1 — SCSI "mode sense" command failed
fb2 — data overflow - too many block descriptors
fb5 — failed to get the segment number
fb9 — SCSI "mode select" command failed
fc1 — see DKDRV report on the ROP
fc6 — failed to get the segment number
fc9 — SCSI "read capacity" command failed
ffe — aborted due to phase 1

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

d = Number of failures (bad sectors for SMD MHD or bad blocks for SCSI MHD) found during the verify step.

e = Relative track number of the indicated bad sector. The track number is relative to the beginning of the disk. It is calculated using all tracks of the disk excluding those tracks mapped out by defect management. This variable field only applies to an SMD MHD.

f = Physical cylinder number of the indicated bad sector. This number is calculated using all tracks of the disk including those mapped out by defect management. This variable field only applies to an SMD MHD.

g = Physical head number of the indicated bad sector. This number is calculated using all tracks of the disk including those mapped out by defect management. This variable field only applies to an SMD MHD.

h = Sector number in use when the failure occurred. It is a relative number from 0 to 31. This variable field only applies to an SMD MHD.

i = Logical disk block number of the bad disk block found on the SCSI disk driver during the verify operation.

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j = Command completion word. The command completion word is eight hexadecimal digits in the form AAAABBCC.

AAAA = SCSI job block (SJB) completion code. See "Job completion code" under "General Job Information" in DFC Output Appendix K, DFC-APPK.

BB = Status byte. See "Target SCSI status byte" under "SCSI Command Information" in DFC Output Appendix K, DFC-APPK.

CC = Fill. Not used.

k = First word of extended sense data (ESD). See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits in the form AABBCCDD.

AA = Byte 0 of ESD.

BB = Byte 1 of ESD.

CC = Byte 2 of ESD.

DD = Byte 3 of ESD.

l = Second word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits in the form AABBCCDD.

AA = Byte 4 of ESD.

BB = Byte 5 of ESD.

CC = Byte 6 of ESD.

DD = Byte 7 of ESD.

m = Third word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits in the form AABBCCDD.

AA = Byte 8 of ESD.

BB = Byte 9 of ESD.

CC = Byte 10 of ESD.

DD = Byte 11 of ESD.

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n = Fourth word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits in the form AABBCCDD.

AA = Byte 12 of ESD.

BB = Byte 13 of ESD.

CC = Byte 14 of ESD.

DD = Byte 15 of ESD.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

Noncompletion termination reports that provide an error code usually indicate a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and retry the input request.

A termination report specifying a verification failure indicates that format information on the disk media could not be read, or is incorrect and could not be corrected. This disk media should not be used until the problem is corrected. For an SMD MHD, the HEAD and TRACK information is output to help determine if the problem is with the MHD (head alignment) or in the disk media (bad surface).

If Format 4 prints, the SCSI disk drive encountered an internal drive error. Retain a copy of the error data, then contact the next level of technical support to aid in determining the cause of the error condition.

5. ALARMS

This alarm may be a manually-requested report, or an automatically-generated report for information only.

There is a manual alarm for OMDB keys 147 and 666, and an information alarm for OMDB key 148.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

There is a major alarm for OMDB keys 146, 149, and 569.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 147, 148 and 149.
Format 2 has an OMDB key of 146.
Format 3 has an OMDB key of 569.
Format 4 has an OMDB key of 666.

Output Appendixes
DFC-APPJ
DFC-APPK
SYSERR-APP

Input Messages
INIT:MHD
LOAD:MHD
VFY:MHD

Output Messages
REPT-DKDIP
VFY-MHD

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . INIT-ULARP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `INIT ULARP COMPLETED`

[2] `INIT ULARP NOT STARTED`
`RETRY LATER`

2. REASON FOR OUTPUT

To report the termination status of the `INIT:ULARP` input message.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None. This message is for information only.

5. ALARMS

None.

6. REFERENCES

Input Message
`INIT:ULARP`

ID . . . . . INIT-UMEM-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has five formats.

[1] `INIT UMEM` *a* `WAS UNDEF NOW` *b #c*

[2]
```
INIT UMEM NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS
```

[3]
```
INIT UMEM NOT STARTED
INVALID ACTION FIELD
```

[4]
```
INIT UMEM NOT STARTED
INVALID ID FIELD
```

[5]
```
INIT UMEM NOT STARTED
RETRY LATER
```

2. REASON FOR OUTPUT

To report the disposition of an `INIT:UMEM` input message.

3. VARIABLE FIELD DEFINITIONS

a = Status of the operation:

`COMPLETED` — The trace is ready as specified.

`STOPPED UCERR` — The utility circuit either does not respond or does not match the circuit present at the beginning of the debugging session.

b = The state of the trace after the operation was attempted.

`NEW` — The trace is ready to be used.

`UNDEF` — No trace is defined.

c = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If *a* is `STOPPED UCERR`, check the utility circuit hardware. After it is fixed, use the `INIT:UC` input message to reinitialize the circuit.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Format 1 has an OMDB key of 498.

Input Messages
`CLR:UMEM`
`INIT:UC`
`INIT:UMEM`
`OP:UTIL`

Output Message
`OP-UTIL`

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . INIT-UMEM-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `INIT UMEM` *a* `WAS UNDEF NOW` *b #c*

[2]
```
INIT UMEM NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS
```

[3]
```
INIT UMEM NOT STARTED
INVALID ACTION FIELD
```

[4]
```
INIT UMEM NOT STARTED
INVALID ID FIELD
```

[5]
```
INIT UMEM NOT STARTED
RETRY LATER
```

[6] `INIT UMEM COULD NOT CREATE` *d e file f #g*

2. REASON FOR OUTPUT

To report the disposition of an `INIT:UMEM` input message.

3. VARIABLE FIELD DEFINITIONS

a = Status of the operation:

- `COMPLETED` — The trace is ready as specified.
- `STOPPED UCERR` — The utility circuit either does not respond or does not match the circuit present at the beginning of the debugging session.

b = The state of the trace after the operation was attempted.

- `NEW` — The trace is ready to be used.
- `UNDEF` — No trace is defined.

c = Generic access package (GRASP) execution sequence number.

d = `Create`, `Open`, or `Read`. Indicates which file operation failed.

e = Diagnostics or trace information indicates what type of file operation failed for.

f = File name indicates file operation failed for.

g = GRASP sequence number.

4. ACTION TO BE TAKEN

If *a* is `STOPPED UCERR`, check the utility circuit hardware. After it is fixed, use the `INIT:UC` input message to reinitialize the circuit.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 498.
Format 6 has an OMDB key of 567.

Input Messages
`CLR:UMEM`
`INIT:UC`
`INIT:UMEM`
`OP:UTIL`

Output Message
`OP-UTIL`

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . LOAD-ADDR
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`LOAD ADDR` *a* [`,OFF` *b*] *c #d*

2. REASON FOR OUTPUT

To report the completion status of a `LOAD` input message.

3. VARIABLE FIELD DEFINITIONS

a = Virtual address, in hexadecimal notation (destination of the load).

b = Offset information from input message.

c = Termination report.

- `COMPLETED` — The `LOAD` operation has been successfully completed.
- `STOPPED NGADDR` — The `LOAD` message was stopped because the address specified is not valid.
- `STOPPED NGLOAD` — The `LOAD` message was stopped because some other error occurred.
- `STOPPED NGPROT` — The `LOAD` operation was stopped because the destination address does not have write permission granted.

d = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If *c* is `STOPPED NGADDR`, recheck the program listings.

If *c* is `STOPPED NGPROT`, recheck the destination to verify that it indicates a writable area. To change program text, use the `LOAD:UPNM` input message.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
This message has an OMDB key of 494.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages
LOAD:ADDR
LOAD:PMEM
LOAD:REG
LOAD:UVAR

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CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . LOAD-DFC,PUMP-A
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has five formats.

[1] `LOAD DFC` *a* `PUMP [CHECKSUM] NOT STARTED` *b c*

[2] `LOAD DFC` *a* `PUMP [CHECKSUM] STOPPED` *b c*

[3] `LOAD DFC` *a* `PUMP [CHECKSUM] ERROR` *b c*

[4] `LOAD DFC` *a* `PUMP [CHECKSUM] ABORTED` *b*

[5] `LOAD DFC` *a* `PUMP [CHECKSUM] COMPLETED` *d*

2. REASON FOR OUTPUT

To report the result of executing a `LOAD:DFC;PUMP` input command.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the disk file controller (DFC).

b = Process step or reason code:

f03 — cannot open equipment configuration database (ECD)
f06 — cannot get unit control block (UCB) by name
f09 — failed to open the pumpfile
f0a — pumpfile is zero byte in size
f0c — cannot allocate buffer (ECD)
f0e — cannot read pump file header
f11 — DFC is not an SCSI device
f13 — cannot reserve UCB
f16 — cannot assign special device file name
f1a — cannot open special device file
f1b — cannot enable msg reception
f1d — see accompanying disk driver (DKDRV) error report on the receive-only printer (ROP)
f1f — DFC is not ACTIVE for pump
f22 — fail to reset the DFC - see accompanying DKDRV error report on the ROP
f25 — fail to close the special device file in waiting for the DFC reset to complete
f28 — fail to re-open the special device file for DFC
f2a — DFC auto pump failed
f2c — failed to allocate a segment for buffer
f2e — DFC pump failed

SEE PROPRIETARY NOTICE ON COVER PAGE

f31 — failed in notifying DKDRV the completion of pump procedure
f34 — process timed out
f37 — failed to close special device file
f3a — failed to release special device file
f3c — failed to unreserve UCB of unit
f3e — failed to close ECD
f3e — failed to close the pumpfile
f44 — message to DKDRV failure
f47 — message reception failure
f4c — terminated externally
f4e — invalid header magic number in pumpcode
f51 — invalid pumpcode header
f54 — unused portion of the pump file header is not zero

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

d = There are two formats for this field:

VALID PUMPCODE — pumpcode has passed the hashsum check

INVALID PUMPCODE — pumpcode failed the hashsum check

4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried. The pump failure can also be caused by the incompatibility between the pumpcode and firmware. The pump can also fail due to a corrupted pumpfile. A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

Output Appendix
SYSERR-APP

Input Messages
LOAD:DFC;PUMP
LOAD:DFC;RAM

Output Messages
LOAD-DFC,RAM
REPT-DFC,PUMP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . LOAD-DFC,PUMP-B
GENERIC . . . . . UNIX RTR R21.3 and R21.11
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has six formats.

[1] `LOAD DFC` *a* `PUMP [CHECKSUM] NOT STARTED` *b c*

[2] `LOAD DFC` *a* `PUMP [CHECKSUM] STARTED`

[3] `LOAD DFC` *a* `PUMP [CHECKSUM] STOPPED` *b c*

[4] `LOAD DFC` *a* `PUMP [CHECKSUM] ERROR` *b c*

[5] `LOAD DFC` *a* `PUMP [CHECKSUM] ABORTED` *b*

[6] `LOAD DFC` *a* `PUMP [CHECKSUM] COMPLETED` *d*

2. REASON FOR OUTPUT

To report the result of executing a `LOAD:DFC;PUMP` input command.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the disk file controller (DFC).

b = Process step or reason code:

f03 — failed to open the ECD
f06 — failed to get UCB by name
f07 — DFC is not an SCSI device
f09 — failed to open the pump file
f0a — pump file is zero length (bytes) in size
f0c — failed to allocate buffer
f0e — failed to read the pump file header
f13 — failed to reserve the UCB
f16 — failed to assign special device file name for DFC
f19 — failed to open special device file for DFC
f1b — failed to enable message reception
f1d — see DKDRV report on the ROP
f1f — DFC is not active
f22 — see DKDRV report on the ROP
f25 — failed to close special device file
f28 — failed to re-open special device file for DFC
f2a — DFC auto pump failed
f2c — failed to allocate a segment for buffer
f2e — DFC pump failed

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f31 — failed to notify DKDRV of the pump procedure completion
f34 — process timed out
f37 — failed to close special device file
f3a — failed to release special device file
f3c — failed to unreserve UCB
f3e — failed to close ECD
f3f — failed to close the pump file
f41 — read of the pump file failed
f44 — message to port failure
f47 — message reception failure
f4c — terminated externally with signal
f4e — invalid magic number in pump file header
f51 — invalid pump file header
f54 — unused portion of the pump file header is not zero

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

d = There are two formats for this field:

VALID PUMPCODE — pumpcode has passed the hashsum check

INVALID PUMPCODE — pumpcode failed the hashsum check

4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried. The pump failure can also be caused by the incompatibility between the pumpcode and firmware. The pump can also fail due to a corrupted pumpfile. A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

Output Appendix
SYSERR-APP

Input Messages
LOAD:DFC;PUMP
LOAD:DFC;RAM

Output Messages
LOAD-DFC,RAM
REPT-DFC,PUMP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . LOAD-DFC,PUMP-C
GENERIC . . . . . UNIX RTR R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has six formats.

[1] `LOAD DFC` *a* `PUMP [CHECKSUM | FU] NOT STARTED` *b c*

[2] `LOAD DFC` *a* `PUMP [CHECKSUM | FU] STARTED`

[3] `LOAD DFC` *a* `PUMP [CHECKSUM | FU] STOPPED` *b c*

[4] `LOAD DFC` *a* `PUMP [CHECKSUM | FU] ERROR` *b c*

[5] `LOAD DFC` *a* `PUMP [CHECKSUM | FU] ABORTED` *b*

[6] `LOAD DFC` *a* `PUMP [CHECKSUM | FU] COMPLETED` *d*

2. REASON FOR OUTPUT

To report the result of executing a `LOAD:DFC;PUMP` input command.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the disk file controller (DFC).

b = Process step or reason code:

f03 — failed to open the ECD
f06 — failed to get UCB by name
f07 — DFC is not an SCSI device
f09 — failed to open the pump file
f0a — pump file is zero length (bytes) in size
f0c — failed to allocate buffer
f0e — failed to read the pump file header
f13 — failed to reserve the UCB
f16 — failed to assign special device file name for DFC
f19 — failed to open special device file for DFC
f1b — failed to enable message reception
f1d — see DKDRV report on the ROP
f1f — DFC is not active
f22 — see DKDRV report on the ROP
f25 — failed to close special device file
f28 — failed to re-open special device file for DFC
f2a — DFC auto pump failed
f2c — failed to allocate a segment for buffer
f2e — DFC pump failed

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f31 — failed to notify DKDRV of the pump procedure completion
f34 — process timed out
f37 — failed to close special device file
f3a — failed to release special device file
f3c — failed to unreserve UCB
f3e — failed to close ECD
f3f — failed to close the pump file
f41 — read of the pump file failed
f44 — message to port failure
f47 — message reception failure
f4c — terminated externally with signal
f4e — invalid magic number in pump file header
f51 — invalid pump file header
f54 — unused portion of the pump file header is not zero

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

d = There are two formats for this field:

VALID PUMPCODE — pumpcode has passed the hashsum check

INVALID PUMPCODE — pumpcode failed the hashsum check

4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried. The pump failure can also be caused by the incompatibility between the pumpcode and firmware. The pump can also fail due to a corrupted pumpfile. A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

Output Appendix
SYSERR-APP

Input Messages
LOAD:DFC;PUMP
LOAD:DFC;RAM

Output Messages
LOAD-DFC,RAM
REPT-DFC,PUMP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . LOAD-DFC,RAM-A
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

[1] `LOAD DFC` *a* `RAM [CHECKSUM] NOT STARTED` *b c*

[2] `LOAD DFC` *a* `RAM [CHECKSUM] STOPPED` *b c*

[3] `LOAD DFC` *a* `RAM [CHECKSUM] ERROR` *b c*

[4] `LOAD DFC` *a* `RAM [CHECKSUM] ABORTED` *b*

[5] `LOAD DFC` *a* `RAM [CHECKSUM] COMPLETED` *d*

2. REASON FOR OUTPUT

To report the result of executing a `LOAD:DFC;RAM` input message.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the disk file controller (DFC).

b = Process step or reason code:

f03 — cannot open equipment configuration database (ECD)
f06 — cannot get unit control block (UCB) by name
f09 — failed to open the pumpfile
f0a — pumpfile is zero byte in size
f0c — cannot allocate buffer
f0e — cannot read pumpfile header
f11 — DFC is not a SCSI device
f13 — cannot reserve UCB
f16 — cannot assign special device file name
f19 — cannot open special device file
f1b — cannot enable msg reception
f1d — see accompanying disk driver DKDRV error report on the ROP
f1f — DFC is not ACTIVE for pump
f22 — fail to reset the DFC
see accompanying DKDRV error report on the ROP
f25 — fail to close the special device file in waiting for the DFC reset to complete
f28 — fail to re-open the special device file for DFC
f2a — DFC auto pump failed
f2c — failed to allocate a segment for buffer
f2e — DFC pump failed
f31 — failed in notifying DKDRV the completion of pump procedure

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f34 — process timed out
f37 — failed to close special device file
f3a — failed to release special device file
f3c — failed to unreserve UCB of unit
f3e — failed to close ECD
f3e — failed to close the pumpfile
f44 — message to DKDRV failure
f47 — message reception failure
f4c — terminated externally
f4e — invalid header magic number in pumpcode
f51 — invalid pumpcode header
f54 — unused portion of the pump file header is not zero

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

d = There are two formats for this field:

VALID PUMPCODE — pumpcode has passed the hashsum check.
INVALID PUMPCODE — pumpcode failed the hashsum check.

4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried. A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

Output Appendix
SYSERR-APP

Input Messages
LOAD:DFC;PUMP
LOAD:DFC;RAM

Output Message
LOAD-DFC,PUMP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . LOAD-DFC,RAM-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

[1] `LOAD DFC` *a* `RAM [CHECKSUM] NOT STARTED` *b c*

[2] `LOAD DFC` *a* `RAM [CHECKSUM] STOPPED` *b c*

[3] `LOAD DFC` *a* `RAM [CHECKSUM] ERROR` *b c*

[4] `LOAD DFC` *a* `RAM [CHECKSUM] ABORTED` *b*

[5] `LOAD DFC` *a* `RAM [CHECKSUM] COMPLETED` *d*

2. REASON FOR OUTPUT

To report the result of executing a `LOAD:DFC;RAM` input message.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the disk file controller (DFC).

b = Process step or reason code.

f03 — failed to open the ECD
f06 — failed to get UCB by name
f07 — DFC is not an SCSI device
f09 — failed to open the pump file
f0a — pump file is zero length (bytes) in size
f0c — failed to allocate buffer
f0e — failed to read the pump file header
f13 — failed to reserve the UCB
f16 — failed to assign special device file name for DFC
f19 — failed to open special device file for DFC
f1b — failed to enable message reception
f1d — see DKDRV report on the ROP
f1f — DFC is not active
f22 — see DKDRV report on the ROP
f25 — failed to close special device file
f28 — failed to re-open special device file for DFC
f2a — DFC auto pump failed
f2c — failed to allocate a segment for buffer
f2e — DFC pump failed
f31 — failed to notify DKDRV of the pump procedure completion
f34 — process timed out
f37 — failed to close special device file
f3a — failed to release special device file

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f3c — failed to unreserve UCB
f3e — failed to close ECD
f3f — failed to close the pump file
f41 — read of the pump file failed
f44 — message to port failure
f47 — message reception failure
f4c — terminated externally with signal
f4e — invalid magic number in pump file header
f51 — invalid pump file header
f54 — unused portion of the pump file header is not zero

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

d = There are two formats for this field:

VALID PUMPCODE — pumpcode has passed the hashsum check.
INVALID PUMPCODE — pumpcode failed the hashsum check.

4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried. A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

Output Appendix
SYSERR-APP

Input Messages
LOAD:DFC;PUMP
LOAD:DFC;RAM

Output Message
LOAD-DFC,PUMP

ID . . . . . LOAD-MHD-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`LOAD MHD` *a* `FROM TD` *b c* [*d*]
[*e*]

2. REASON FOR OUTPUT

To report the status of a request to load a disk from tape during disk independent operation (DIOP) mode in response to the `LOAD MHD` poke on the DFSA display page.

3. VARIABLE FIELD DEFINITIONS

a = MHD member number to be loaded.

b = Pathname used to access the tape unit.

c = Status of request:

`STARTED`	— Poke parameters accepted.
`IN PROGRESS`	— Message indicating normal progress.
`STOPPED`	— Process stopped by a poke request.
`ABORTED`	— Process aborted due to error.
`ERROR`	— Process aborted due to tape error.
`MOUNT NEXT TAPE`	— Directive to mount next tape.
`COMPLETED`	— Process completed successfully.

If *c* = `ABORTED`,

d = One of the following error codes.

f00 — invalid option, abort the command in progress
f03 — `entry()` function call failed
f06 — ECD access failed
f09 — failed to open the disk unit
f12 — invalid `segsize` or buffer address
f15 — failed to open the tape device
f18 — header read failed
f21 — header check failed
f24 — wrong tape mounted
f27 — tape is out of sequence
f30 — tape sequence ID is incorrect
f33 — tape sequence ID is incorrect
f36 — boot flags do not match
f39 — tape sequence ID is incorrect
f42 — GENERIC and DB tapes not made with same generic

SEE PROPRIETARY NOTICE ON COVER PAGE

f45 — first tape read failed
f48 — first disk seek failed
f51 — first disk seek failed
f54 — second tape read failed
f57 — second disk seek failed
f60 — second disk write failed
f63 — tape block size invalid
f66 — header read failed
f69 — header check failed
f72 — tape close failed
f75 — trashed header on the tape
f78 — internal error
f81 — mount tape timeout

If *c* = ERROR,

e = One of the following messages:

REPT HEADER HASH SUM CHECK FAILED
The calculated header hash sum on the tape does not match the recorded header hash sum on the tape.

REPT DATA HASH SUM CHECK FAILED
The calculated data hash sum on the tape does not match the recorded data hash sum on the tape.

4. ACTION TO BE TAKEN

A hash sum check message indicates that data on the tape is corrupted. Verify the integrity of the tape and/or the tape unit. Correct any problems and repeat the input request.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
This message has an OMDB key of 270.

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ID . . . . . LOAD-MHD-B
GENERIC . . . . . UNIX RTR R21.3 and R21.11
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`LOAD MHD` *a* `FROM TD` *b c* [*d*]

2. REASON FOR OUTPUT

To report the status of a request to load a disk from tape during disk independent operation (DIOP) mode in response to the `LOAD MHD` poke on the DFC Status Page.

3. VARIABLE FIELD DEFINITIONS

a = MHD member number to be loaded.

b = Pathname used to access tape unit.

c = Status of request:

`ABORTED`	— Process aborted due to error.
`COMPLETED`	— Process completed successfully.
`ERROR`	— Process encountered an error.
`IN PROGRESS`	— Message indicating normal progress.
`MOUNT NEXT TAPE`	— Directive to mount next tape.
`STARTED`	— Poke parameters accepted.
`STOPPED`	— Process stopped by a poke request.

If *c* = `ERROR` or `ABORTED`

d = One of the following messages:

`f03` — `entry()` call failed
`f06` — ECD access failed
`f09` — failed to open the disk unit
`f12` — invalid segsize or buffer address
`f13` — failed to open the tape device
`f14` — failed to close the tape device
`f15` — failed to open the tape device
`f16` — read of tape header failed
`f17` — failed to close the tape device
`f18` — read of tape header failed
`f19` — tape header check failed
`f20` — failed to close the tape device
`f21` — tape header check failed
`f22` — wrong tape mounted
`f23` — failed to close the tape device
`f24` — wrong tape mounted
`f25` — tape is out of sequence
`f26` — failed to close the tape device

SEE PROPRIETARY NOTICE ON COVER PAGE

`f27` — tape is out of sequence
`f28` — tape sequence ID is incorrect
`f29` — failed to close the tape device
`f30` — tape sequence ID is incorrect
`f31` — tape sequence ID is incorrect
`f32` — failed to close the tape device
`f33` — tape sequence ID is incorrect
`f34` — boot flags do not match
`f35` — failed to close the tape device
`f36` — boot flags do not match
`f37` — tape sequence ID is incorrect
`f38` — failed to close the tape device
`f39` — tape sequence ID is incorrect
`f40` — GENERIC and DB tapes not made with same generic
`f41` — failed to close the tape device
`f42` — GENERIC and DB tapes not made with same generic
`f43` — SG DB IDs do not match
`f45` — first tape read failed
`f48` — first disk seek failed
`f51` — first disk write failed
`f54` — second tape read failed
`f57` — second disk seek failed
`f60` — second disk write failed
`f63` — tape block size invalid
`f66` — read of tape header failed
`f69` — tape header check failed
`f72` — tape close failed
`f75` — tape header is inconsistent
`f81` — mount tape timeout
`f85` — `opcltape()` called with invalid flag
`f89` — `ioqueuem()` call failed
`f8d` — `waitack()` call failed
`f91` — failed to open tape device
`f95` — failed to close tape device
`f99` — `ioqueuem()` call failed
`f9d` — `waitack()` call failed
`fa1` — tape header read failed
`fa5` — read of tape header exceeded retry count
`fa9` — bufsize or tpblksize invalid
`fad` — `ioqueuem()` call failed
`fb1` — `waitack()` call failed
`fb5` — data read failed
`fb9` — read of tape exceeded retry count
`fbd` — `readtape()` tpblocks problem
`fc1` — tape I/O message timed out
`fc5` — failed to close tape device
`fc9` — failed to close disk device
`fcc` — invalid common generic tape syncword
`fcd` — tape syncword invalid for 3B21D platform
`fce` — tape syncword invalid for 3B20D platform

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`fcf` — invalid ecdorg model field
`fd1` — header hash sum check failed
`fd5` — data hash sum check failed
`fd9` — failed to get tape logdev record
`fdd` — failed to get tape MDCT record
`fe1` — failed to get tape UCB record
`fe5` — failed to get tape device driver PID
`fe9` — failed to get MHD UCB record by name
`ffe` — aborted due to phase 1

4. ACTION TO BE TAKEN

A hash sum check message indicates that data on the tape is corrupted. Verify the integrity of the tape and/or the tape unit. Correct any problems and repeat the input request.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
This message has an OMDB keys of 270.

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . LOAD-MHD-C
GENERIC . . . . . UNIX RTR R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

[1] `LOAD MHD` *a* `FROM TD` *b c* [*d*]

[2] `LOAD MHD` *a* `FROM TD` *b c* [*d*]
`SESSION` *e* `VOLUME` *f*

2. REASON FOR OUTPUT

To report the status of a request to load a disk from tape during disk independent operation (DIOP) mode in response to the `LOAD MHD` poke on the DFC Status Page.

3. VARIABLE FIELD DEFINITIONS

a = MHD member number to be loaded.

b = Pathname used to access tape unit.

c = Status of request:

`ABORTED` — Process aborted due to error.
`COMPLETED` — Process completed successfully.
`ERROR` — Process encountered an error.
`IN PROGRESS` — Message indicating normal progress.
`MOUNT NEXT TAPE` — Directive to mount next tape.
`STARTED` — Poke parameters accepted.
`STOPPED` — Process stopped by a poke request.

If *c* = `ERROR` or `ABORTED`

d = One of the following messages:

`f03` — `entry()` call failed
`f06` — ECD access failed
`f07` — multi-volume tape not supported on hardware platform
`f08` — special device file is not for a DAT
`f09` — tape device is not active
`f0a` — failed to open the disk unit
`f11` — invalid segsize or buffer address
`f12` — `vol_openrd()` call failed
`f13` — failed to open the tape device
`f14` — failed to close the tape device
`f15` — failed to open the tape device
`f16` — read of tape header failed
`f17` — failed to close the tape device
`f18` — read of tape header failed
`f19` — tape header check failed

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`f20` — failed to close the tape device
`f21` — tape header check failed
`f22` — wrong tape mounted
`f23` — failed to close the tape device
`f24` — wrong tape mounted
`f25` — tape is out of sequence
`f26` — failed to close the tape device
`f27` — tape is out of sequence
`f28` — tape sequence ID is incorrect
`f29` — failed to close the tape device
`f30` — tape sequence ID is incorrect
`f31` — tape sequence ID is incorrect
`f32` — failed to close the tape device
`f33` — tape sequence ID is incorrect
`f34` — boot flags do not match
`f35` — failed to close the tape device
`f36` — boot flags do not match
`f37` — tape sequence ID is incorrect
`f38` — failed to close the tape device
`f39` — tape sequence ID is incorrect
`f40` — GENERIC and DB tapes not made with same generic
`f41` — failed to close the tape device
`f42` — GENERIC and DB tapes not made with same generic
`f43` — SG DB IDs do not match
`f45` — first tape read failed
`f48` — first disk seek failed
`f51` — first disk write failed
`f54` — second tape read failed
`f57` — second disk seek failed
`f60` — second disk write failed
`f63` — tape block size invalid
`f66` — read of tape header failed
`f69` — tape header check failed
`f72` — tape close failed
`f75` — tape header is inconsistent
`f81` — mount tape timeout
`f85` — `opcltape()` called with invalid flag
`f89` — `ioqueuem()` call failed
`f8d` — `waitack()` call failed
`f91` — failed to open tape device
`f95` — failed to close tape device
`f99` — `ioqueuem()` call failed
`f9d` — `waitack()` call failed
`fa1` — tape header read failed
`fa5` — read of tape header exceeded retry count
`fa9` — bufsize or tpblksize invalid
`fad` — `ioqueuem()` call failed
`fb1` — `waitack()` call failed
`fb5` — data read failed
`fb9` — read of tape exceeded retry count

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`fbd` — `readtape()` tpblocks problem
`fc1` — tape I/O message timed out
`fc3` — failed to close tape device
`fc5` — failed to close disk device
`fc7` — failed to open rewind tape device
`fc9` — failed to close rewind tape device
`fca` — tape header session number does not match command line parameter
`fcb` — tape header volume number does not match command line parameter
`fcc` — invalid common generic tape syncword
`fcd` — tape syncword invalid for 3B21D platform
`fce` — tape syncword invalid for 3B20D platform
`fcf` — invalid ecdorg model field
`fd1` — header hash sum check failed
`fd5` — data hash sum check failed
`fd9` — failed to get tape logdev record
`fdd` — failed to get tape MDCT record
`fde` — invalid partition value for tape special device file
`fe1` — failed to get tape UCB record
`fe5` — failed to get tape device driver PID
`fe9` — failed to get MHD UCB record by name
`fea` — failed to open the tape device
`feb` — read of tape header failed
`fec` — invalid multi-volume tape
`fed` — failed to close no-rewind tape device
`fee` — failed to open rewind tape device
`fef` — failed to close rewind tape device
`ff0` — failed to open no-rewind tape device
`ff1` — failed to close no-rewind tape device
`ff2` — valid logical volume did not precede EOD
`ff3` — specified logical volume not found on tape
`ff4` — specified logical volume not found on tape
`ff5` — specified session not found on tape
`ff6` — read of tape header failed
`ff7` — invalid multi-volume tape
`ff8` — sessions are not sequential
`ff9` — volumes are not in ascending order
`ffa` — specified logical volume not found on tape
`ffb` — specified logical volume not found on tape
`ffc` — failed to close no-rewind tape device
`ffe` — aborted due to phase 1

e = Multi-volume Digital Audio Tape (DAT) session number.

f = Multi-volume Digital Audio Tape (DAT) volume number.

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4. ACTION TO BE TAKEN

If the message indicates that there is a problem with the tape, verify that the correct tape is loaded in the specified tape drive. If the message indicates that there is a problem accessing the tape drive, verify that the tape is loaded and the tape drive is active. If these checks fail to uncover the problem, or if the description of the error is not self-explanatory, seek technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
This message has an OMDB keys of 270.

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . LOAD-MHD,DEF-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has five formats.

[1] `LOAD MHD` *a* `DEFECT TABLE NOT STARTED` *b c*

[2] `LOAD MHD` *a* `DEFECT TABLE STOPPED` *b c*

[3] `LOAD MHD` *a* `DEFECT TABLE ERROR` *b c*

[4] `LOAD MHD` *a* `DEFECT TABLE ABORTED` *b*

[5] `LOAD MHD` *a* `DEFECT TABLE COMPLETED` *d*

2. REASON FOR OUTPUT

To report the result of executing a `LOAD:MHD;DEFECT` input message.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the moving head disk (MHD).

b = Process step or reason code.

f03 — failed to open input file
f06 — cannot open equipment configuration database (ECD)
f09 — cannot get unit control block (UCB) of unit by name
f12 — cannot reserve UCB
f15 — cannot assign special device file name
f18 — cannot open special device file
f21 — cannot set input/output mode of device file
f24 — cannot enable message reception
f27 — see accompanying disk driver (DKDRV) error report on the receive-only printer (ROP)
f30 — disk file controller (DFC) is not in S_ACT state
f33 — drive size not supported by defect management
f36 — MHD size not recognized
f37 — read of defect spec file not correct
f39 — `lseek` to mfgr disk address failed
f42 — disk write failed
f45 — too many defects specified
f48 — incorrect defect spec file format
f51 — cylinder number out of range
f54 — head number out of range
f57 — sector number out of range
f60 — defects not sorted in ascending order by head

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f63 — defects not sorted in ascending order by cylinder
f66 — message to port failure
f69 — message reception failure
f72 — process timed out
f75 — failed to close special device file
f78 — failed to release special device file
f81 — failed to unreserve UCB of unit
f84 — failed to close ECD

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

d = Number of defect written.

4. ACTION TO BE TAKEN

A termination report that specifies noncompletion provides an error code that usually indicates a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried.

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
This message has an OMDB key of 123.

Output Appendix
SYSERR-APP

Input Messages
DUMP:MHD;DEFECT
LOAD:MHD;DEFECT

Output Message
LOAD-MHD,DEFECT

ID . . . . . LOAD-MHD,DEF-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has six formats.

[1] `LOAD MHD` *a* `DEFECT TABLE NOT STARTED` *b c*

[2] `LOAD MHD` *a* `DEFECT TABLE STOPPED` *b c*

[3] `LOAD MHD` *a* `DEFECT TABLE ERROR` *b c*

[4] `LOAD MHD` *a* `DEFECT TABLE ABORTED` *b*

[5] `LOAD MHD` *a* `DEFECT TABLE` *d* `COMPLETED`
d `DEFECTS LOADED`

[6] `LOAD MHD` *a* `DEFECT TABLE` *d* `COMPLETED`
d `DEFECTS LOADED`
`SCSI DEFECT COUNT CHECK {COMPLETED | ERROR [`*b c*`] }`
`[WARNING: NUMBER OF GROWN DEFECTS EXCEEDS THE LUCENT RECOMMENDATION ]`
`[WARNING: TOTAL NUMBER OF DEFECTS EXCEEDS THE LUCENT RECOMMENDATION ]`
`[WARNING: NUMBER OF DEFECTS ON A CYLINDER EXCEEDS THE LUCENT RECOMMENDATION ]`

2. REASON FOR OUTPUT

To report the result of executing a `LOAD:MHD;DEFECT` input message.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Process step or reason code.

f03 — failed to `fopen()` input file
f06 — failed to open ECD
f09 — failed to get UCB by name
f12 — failed to reserve UCB
f15 — failed to assign special device file name
f18 — failed to open special device file
f21 — failed to set I/O mode of device file
f24 — failed to enable message reception
f26 — clear of media access error counter failed
f27 — see DKDRV report on the ROP

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f30 — DFC is not in S_ACT state
f33 — drive size not supported by defect management
f36 — MHD size not recognized
f39 — `lseek()` to "mfgr" disk address failed
f42 — disk write failed
f44 — clear of MHD media access error counter failed
f46 — too many defect blocks specified
f48 — incorrect defect spec file format
f4a — block number not sorted in ascending order
f4b — block number is out of range
f4c — failed to get the segment number
f53 — see DKDRV report on ROP
f56 — Small computer system interface (SCSI) "reassign block" command failed
f59 — too many defects specified
f6c — incorrect defect spec file format
f6e — cylinder number out of range
f71 — head number out of range
f73 — sector number out of range
f76 — head number not sorted in ascending order
f79 — cylinder number not sorted in ascending order
f82 — message to port failure
f85 — message reception failure
f88 — process timed out
f8c — failed to close special device file
f8e — failed to release special device file
f91 — failed to unreserve UCB
f93 — failed to close ECD
f96 — terminated externally with signal
f99 — see DKDRV report on ROP
f9c — read of the SCSI defect header failed
f9f — see DKDRV report on ROP
fa2 — read of the SCSI defect list failed
fa5 — failed to get the segment number
fa8 — message to port failure
fab — message reception failure
fae — failed to get the segment number
fb1 — see DKDRV report on the ROP
fb3 — SCSI "inquiry" command failed
fb9 — drive not formatted with 512 bytes per logical block
fba — data overflow - too many block descriptors
fbd — data overflow - too many block descriptors
fc2 — failed to get the segment number
fc4 — see DKDRV report on the ROP
fc6 — SCSI "read capacity" command failed
fc9 — failed to get the segment number
fcb — see DKDRV report on the ROP
fce — SCSI "mode sense" command failed
fd2 — failed to get the segment number
fd4 — see DKDRV report on the ROP

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fd6 — SCSI "mode sense" command failed
fd9 — `diskinfo()` library call failed
fdb — unknown defect limit type
fde — unexpected UCB equipage value

c = System error code number. See System Error Codes Output Appendix, `SYSERR-APP`.

d = Number of defect written.

4. ACTION TO BE TAKEN

A termination report that specifies noncompletion provides an error code that usually indicates a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and retry the input request.

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

For a SCSI disk drive, the completion message may also include warnings as a result of checking the media defect count of the disk against the following.

The number of `GROWN` defects should be no more than a recommended limit over the useful life of the disk. If the recommended limit is exceeded, the disk drive could become unreliable.

The total number of defects (`PRIMARY` and `GROWN` defects) should not exceed the Lucent Technologies specification for the disk drive. If the disk has more than the number of defects allowed, the disk drive could become unreliable.

The total number of defects (`PRIMARY` and `GROWN` defects) on a cylinder should not exceed the recommended limit. If the number of defects on a cylinder is larger than the limit, the performance of the disk drive may degrade to the point that the disk drive may not be able to be used as a boot device in the 3B20D or 3B21D system.

Lucent Technologies recommends that the SCSI disk should be replaced if there is any warning output related to the above recommendations.

NOTE: For a SCSI disk, after the new defect blocks are loaded, all the previous information about the bad blocks (defects) becomes invalid. For example, bad logical block number 3 is not physically the same block after being loaded; in fact, it is now a good block number 3. Therefore, only a new defect(s) detected since the previous `LOAD:MHD;DEFECT` command should be included in the specfile used for loading new defects into the `GROWN` defect list.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1 through 5 have an OMDB key of 123.
Format 6 has OMDB keys of 610 and 611.

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Output Appendix
SYSERR-APP

Input Message
LOAD:MHD

Output Message
DUMP-MHD,DEF

ID . . . . . LOAD-MHD,DEF-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 thru R21.21
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has eight formats.

[1] `LOAD MHD` *a* `DEFECT TABLE NOT STARTED` *b c*

[2] `LOAD MHD` *a* `DEFECT TABLE STOPPED` *b c*

[3] `LOAD MHD` *a* `DEFECT TABLE ERROR` *b c*

[4] `LOAD MHD` *a* `DEFECT TABLE ABORTED` *b*

[5] `LOAD MHD` *a* `DEFECT TABLE COMPLETED`
d `DEFECTS LOADED`

[6] `LOAD MHD` *a* `DEFECT TABLE COMPLETED`
d `DEFECTS LOADED`
`SCSI DEFECT COUNT CHECK` {`COMPLETED` | `ERROR` [*b c*] }
[`WARNING: NUMBER OF GROWTH DEFECTS EXCEEDS THE AT&T RECOMMENDATION`]
[`WARNING: TOTAL NUMBER OF DEFECTS EXCEEDS THE AT&T RECOMMENDATION`]
[`WARNING: NUMBER OF DEFECTS ON A CYLINDER EXCEEDS THE AT&T RECOMMENDATION`]

[7] `LOAD MHD` *a* `DEFECT TABLE ABORTED` *b*
`ERROR DATA` *e f g h i*

[8] `LOAD MHD` *a* `DEFECT TABLE COMPLETED`
d `DEFECTS LOADED`
`SCSI DEFECT COUNT CHECK ABORTED` *b*
`ERROR DATA` *e f g h i*

2. REASON FOR OUTPUT

To report the result of executing a `LOAD:MHD;DEFECT` input message.

Formats 7 and 8 provide additional error information when an explicit small computer system interface (SCSI) command fails. The additional error data is necessary to determine the exact cause of the error condition.

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3. VARIABLE FIELD DEFINITIONS

a = MHD member number.

b = Process step or reason code.

f03 — failed to `fopen()` input file
f06 — failed to open the ECD
f09 — failed to get UCB by name
f0a — failed to get top UCB
f0b — failed to get UCB of controlling unit
f0c — controlling unit is not active
f10 — top UCB is not a DFC
f12 — unknown DFC type
f13 — MHD size not recognized
f14 — drive size not supported by defect management
f15 — failed to reserve the UCB
f16 — failed to assign special device file name
f18 — failed to open special device file
f21 — failed to set I/O mode of device file
f24 — failed to enable message reception
f26 — clear of MHD media access error counter failed
f27 — see DKDRV report on the ROP
f30 — firmware version is not available
f39 — `lseek()` to "mfgr" disk address failed
f42 — disk write failed
f44 — clear of MHD media access error counter failed
f46 — too many defect blocks specified
f48 — incorrect defect spec file format
f4a — block number not sorted in ascending order
f4b — block number is out of range
f4c — failed to get the segment number
f53 — see DKDRV report on the ROP
f56 — SCSI "reassign block" command failed
f59 — too many defects specified
f6c — incorrect defect spec file format
f6e — cylinder number out of range
f71 — head number out of range
f73 — sector number out of range
f76 — head number not sorted in ascending order
f79 — cylinder number not sorted in ascending order
f82 — message to port failure
f85 — message reception failure
f88 — process timed out
f8c — failed to close special device file
f8e — failed to release special device file
f91 — failed to unreserve UCB
f93 — failed to close ECD
f96 — terminated externally with signal
f99 — see DKDRV report on the ROP
f9c — read of the SCSI defect list header failed

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f9f — see DKDRV report on the ROP
fa2 — read of the SCSI defect list failed
fa5 — failed to get the segment number
fa8 — message to port failure
fab — message reception failure
fae — failed to get the segment number
fb1 — see DKDRV report on the ROP
fb3 — SCSI "inquiry" command failed
fb5 — SCSI "inquiry" command data underflow
fb9 — drive not formatted with 512 bytes per logical block
fba — data overflow - too many block descriptors
fbd — data overflow - too many block descriptors
fc2 — failed to get the segment number
fc4 — see DKDRV report on the ROP
fc6 — SCSI "read capacity" command failed
fc9 — failed to get the segment number
fcb — see DKDRV report on the ROP
fce — SCSI "mode sense" command failed
fd2 — failed to get the segment number
fd4 — see DKDRV report on the ROP
fd6 — SCSI "mode sense" command failed
fd9 — `diskinfo()` library call failed
fdb — unknown defect limit type
fde — unexpected UCB equipage value

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

d = Number of defects written.

e = Command completion word. The command completion word is eight hexadecimal digits of the form AAAABBCC.

AAAA = SCSI job block (SJB) completion code. See "Job completion code" under "General Job Information" in DFC Output Appendix K, DFC-APPK.

BB = Status byte. See "Target SCSI status byte" under "SCSI Command Information" in DFC Output Appendix K, DFC-APPK.

CC = Fill. Not used.

f = First word of extended sense data (ESD). See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 0 of ESD.

BB = Byte 1 of ESD.

CC = Byte 2 of ESD.

DD = Byte 3 of ESD.

g = Second word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 4 of ESD.

BB = Byte 5 of ESD.

CC = Byte 6 of ESD.

DD = Byte 7 of ESD.

h = Third word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 8 of ESD.

BB = Byte 9 of ESD.

CC = Byte 10 of ESD.

DD = Byte 11 of ESD.

i = Fourth word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 12 of ESD.

BB = Byte 13 of ESD.

CC = Byte 14 of ESD.

DD = Byte 15 of ESD.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

A termination report that specifies noncompletion provides an error code that usually indicates a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

For a SCSI disk drive, the completion message may also include warnings as a result of checking the media defect count of the disk against the following.

The number of GROWN defects should be no more than a recommended limit over the useful life of the disk. If the recommended limit is exceeded, the disk drive could become unreliable.

The total number of defects (PRIMARY and GROWN) should not exceed the Lucent Technologies specification for the disk drive. If the disk has more than the number of defects allowed, the disk drive could become unreliable.

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The total number of defects (PRIMARY and GROWN) on a cylinder should not exceed the recommended limit. If the number of defects on a cylinder is larger than the limit, the performance of the disk drive may degrade to the point that the disk drive may not be able to be used as a boot device in the 3B20D or 3B21D system.

Lucent Technologies recommends that the SCSI disk should be replaced if there is any warning output related to the above recommendations.

NOTE: For SCSI disk, after new defect blocks are loaded, all the previous information about bad blocks (defects) becomes invalid. For example, bad logical block number 3 is not physically the same block after being loaded; in fact, it is now a good block number 3. Therefore, only a new defect (or defects) detected since the previous LOAD:MHD;DEFECT command should be included in the specfile used for loading new defects into the GROWN defect list.

If Format 7 or Format 8 prints, the SCSI disk drive encountered an internal drive error. Retain a copy of the error data, then contact the next level of technical support to aid in determining the cause of the error condition.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1 through 5 have an OMDB key of 123.
Format 6 has OMDB keys of 610 and 611.
Format 7 has an OMDB key of 666.
Format 8 has an OMDB key of 663.

Output Appendixes
DFC-APPJ
DFC-APPK
SYSERR-APP

Input Message
LOAD:MHD

Output Message
DUMP-MHD,DEF

ID . . . . . LOAD-MHD,DEF-D
GENERIC . . . . . UNIX RTR R21.23 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has eight formats.

[1] `LOAD MHD` *a* `DEFECT TABLE NOT STARTED` *b c*

[2] `LOAD MHD` *a* `DEFECT TABLE STOPPED` *b c*

[3] `LOAD MHD` *a* `DEFECT TABLE ERROR` *b c*

[4] `LOAD MHD` *a* `DEFECT TABLE ABORTED` *b*

[5] `LOAD MHD` *a* `DEFECT TABLE COMPLETED`
d `DEFECTS LOADED`

[6] `LOAD MHD` *a* `DEFECT TABLE COMPLETED`
d `DEFECTS LOADED`
`SCSI DEFECT COUNT CHECK {COMPLETED | ERROR [`*b c*`] }`
`[WARNING: NUMBER OF GROWTH DEFECTS EXCEEDS THE RECOMMENDATION ]`
`[WARNING: TOTAL NUMBER OF DEFECTS EXCEEDS THE RECOMMENDATION ]`
`[WARNING: NUMBER OF DEFECTS ON A CYLINDER EXCEEDS THE`
`RECOMMENDATION ]`

[7] `LOAD MHD` *a* `DEFECT TABLE ABORTED` *b*
`ERROR DATA` *e f g h i*

[8] `LOAD MHD` *a* `DEFECT TABLE COMPLETED`
d `DEFECTS LOADED`
`SCSI DEFECT COUNT CHECK ABORTED` *b*
`ERROR DATA` *e f g h i*

2. REASON FOR OUTPUT

To report the result of executing a `LOAD:MHD;DEFECT` input message.

Formats 7 and 8 provide additional error information when an explicit small computer system interface (SCSI) command fails. The additional error data is necessary to determine the exact cause of the error condition.

3. VARIABLE FIELD DEFINITIONS

a = MHD member number.

b = Process step or reason code.

f03 — failed to `fopen()` input file

f06 — failed to open the ECD
f09 — failed to get UCB by name
f0a — failed to get top UCB
f0b — failed to get UCB of controlling unit
f0c — controlling unit is not active
f10 — top UCB is not a DFC
f12 — unknown DFC type
f13 — MHD size not recognized
f14 — drive size not supported by defect management
f15 — failed to reserve the UCB
f16 — failed to assign special device file name
f18 — failed to open special device file
f21 — failed to set I/O mode of device file
f24 — failed to enable message reception
f26 — clear of MHD media access error counter failed
f27 — see DKDRV report on the ROP
f30 — firmware version is not available
f39 — `lseek()` to "mfgr" disk address failed
f42 — disk write failed
f44 — clear of MHD media access error counter failed
f46 — too many defect blocks specified
f48 — incorrect defect spec file format
f4a — block number not sorted in ascending order
f4b — block number is out of range
f4c — failed to get the segment number
f53 — see DKDRV report on the ROP
f56 — SCSI "reassign block" command failed
f59 — too many defects specified
f6c — incorrect defect spec file format
f6e — cylinder number out of range
f71 — head number out of range
f73 — sector number out of range
f76 — head number not sorted in ascending order
f79 — cylinder number not sorted in ascending order
f82 — message to port failure
f85 — message reception failure
f88 — process timed out
f8c — failed to close special device file
f8e — failed to release special device file
f91 — failed to unreserve UCB
f93 — failed to close ECD
f96 — terminated externally with signal
f99 — see DKDRV report on the ROP
f9c — read of the SCSI defect list header failed
f9f — see DKDRV report on the ROP
fa2 — read of the SCSI defect list failed
fa5 — failed to get the segment number
fa8 — message to port failure
fab — message reception failure
fae — failed to get the segment number

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fb1 — see DKDRV report on the ROP
fb3 — SCSI "inquiry" command failed
fb5 — SCSI "inquiry" command data underflow
fb9 — drive not formatted with 512 bytes per logical block
fba — data overflow - too many block descriptors
fbd — data overflow - too many block descriptors
fc2 — failed to get the segment number
fc4 — see DKDRV report on the ROP
fc6 — SCSI "read capacity" command failed
fc9 — failed to get the segment number
fcb — see DKDRV report on the ROP
fce — SCSI "mode sense" command failed
fd2 — failed to get the segment number
fd4 — see DKDRV report on the ROP
fd6 — SCSI "mode sense" command failed
fd9 — `diskinfo()` library call failed
fdb — unknown defect limit type
fde — unexpected UCB equipage value

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

d = Number of defects written.

e = Command completion word. The command completion word is eight hexadecimal digits of the form AAAABBCC.

AAAA = SCSI job block (SJB) completion code. See "Job completion code" under "General Job Information" in DFC Output Appendix K, DFC-APPK.

BB = Status byte. See "Target SCSI status byte" under "SCSI Command Information" in DFC Output Appendix K, DFC-APPK.

CC = Fill. Not used.

f = First word of extended sense data (ESD). See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 0 of ESD.

BB = Byte 1 of ESD.

CC = Byte 2 of ESD.

DD = Byte 3 of ESD.

g = Second word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 4 of ESD.

BB = Byte 5 of ESD.

CC = Byte 6 of ESD.

DD = Byte 7 of ESD.

h = Third word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 8 of ESD.

BB = Byte 9 of ESD.

CC = Byte 10 of ESD.

DD = Byte 11 of ESD.

i = Fourth word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 12 of ESD.

BB = Byte 13 of ESD.

CC = Byte 14 of ESD.

DD = Byte 15 of ESD.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

A termination report that specifies noncompletion provides an error code that usually indicates a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

For a SCSI disk drive, the completion message may also include warnings as a result of checking the media defect count of the disk against the following.

The number of GROWN defects should be no more than a recommended limit over the useful life of the disk. If the recommended limit is exceeded, the disk drive could become unreliable.

The total number of defects (PRIMARY and GROWN) should not exceed the Lucent Technologies specification for the disk drive. If the disk has more than the number of defects allowed, the disk drive could become unreliable.

The total number of defects (PRIMARY and GROWN) on a cylinder should not exceed the recommended limit. If the number of defects on a cylinder is larger than the limit, the performance of the disk drive may degrade to the point that the disk drive may not be able to be used as a boot device in the 3B20D or 3B21D system.

SEE PROPRIETARY NOTICE ON COVER PAGE

Lucent Technologies recommends that the SCSI disk should be replaced if there is any warning output related to the above recommendations.

NOTE: For SCSI disk, after new defect blocks are loaded, all the previous information about bad blocks (defects) becomes invalid. For example, bad logical block number 3 is not physically the same block after being loaded; in fact, it is now a good block number 3. Therefore, only a new defect (or defects) detected since the previous `LOAD:MHD;DEFECT` command should be included in the specfile used for loading new defects into the `GROWN` defect list.

If Format 7 or Format 8 prints, the SCSI disk drive encountered an internal drive error. Retain a copy of the error data, then contact the next level of technical support to aid in determining the cause of the error condition.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1 through 5 have an OMDB key of 123.
Format 6 has OMDB keys of 610 and 611.
Format 7 has an OMDB key of 666.
Format 8 has an OMDB key of 663.

Output Appendixes
`DFC-APPJ`
`DFC-APPK`
`SYSERR-APP`

Input Message
`LOAD:MHD`

Output Message
`DUMP-MHD,DEF`

ID . . . . . LOAD-MHD,DEF-E
GENERIC . . . . . UNIX RTR R21.25 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has eight formats.

[1] `LOAD MHD` *a* `DEFECT TABLE NOT STARTED` *b c*

[2] `LOAD MHD` *a* `DEFECT TABLE STOPPED` *b c*

[3] `LOAD MHD` *a* `DEFECT TABLE ERROR` *b c*

[4] `LOAD MHD` *a* `DEFECT TABLE ABORTED` *b*

[5] `LOAD MHD` *a* `DEFECT TABLE COMPLETED`
d `DEFECTS LOADED`

[6] `LOAD MHD` *a* `DEFECT TABLE COMPLETED`
d `DEFECTS LOADED`
`SCSI DEFECT COUNT CHECK {COMPLETED | ERROR [`*b c*`] }`
`[WARNING: NUMBER OF GROWTH DEFECTS EXCEEDS THE RECOMMENDATION ]`
`[WARNING: TOTAL NUMBER OF DEFECTS EXCEEDS THE RECOMMENDATION ]`
`[WARNING: NUMBER OF DEFECTS ON A CYLINDER EXCEEDS THE RECOMMENDATION ]`

[7] `LOAD MHD` *a* `DEFECT TABLE ABORTED` *b*
`ERROR DATA` *e f g h i*

[8] `LOAD MHD` *a* `DEFECT TABLE COMPLETED`
d `DEFECTS LOADED`
`SCSI DEFECT COUNT CHECK ABORTED` *b*
`ERROR DATA` *e f g h i*

2. REASON FOR OUTPUT

To report the result of executing a `LOAD:MHD;DEFECT` input message.

Formats 7 and 8 provide additional error information when an explicit small computer system interface (SCSI) command fails. The additional error data is necessary to determine the exact cause of the error condition.

3. VARIABLE FIELD DEFINITIONS

a = MHD member number.

b = Process step or reason code.

f03 — failed to `fopen()` input file
f06 — failed to open the ECD
f09 — failed to get UCB by name
f0a — failed to get top UCB
f0b — failed to get UCB of controlling unit
f0c — controlling unit is not active
f10 — top UCB is not a DFC
f12 — unknown DFC type
f13 — MHD size not recognized
f14 — drive size not supported by defect management
f15 — failed to reserve the UCB
f16 — failed to assign special device file name
f18 — failed to open special device file
f21 — failed to set I/O mode of device file
f24 — failed to enable message reception
f25 — loading of defects is not supported on this drive
f26 — clear of MHD media access error counter failed
f27 — see DKDRV report on the ROP
f30 — firmware version is not available
f39 — `lseek()` to "mfgr" disk address failed
f42 — disk write failed
f44 — clear of MHD media access error counter failed
f46 — too many defect blocks specified
f48 — incorrect defect spec file format
f4a — block number not sorted in ascending order
f4b — block number is out of range
f4c — failed to get the segment number
f53 — see DKDRV report on the ROP
f56 — SCSI "reassign block" command failed
f59 — too many defects specified
f6c — incorrect defect spec file format
f6e — cylinder number out of range
f71 — head number out of range
f73 — sector number out of range
f76 — head number not sorted in ascending order
f79 — cylinder number not sorted in ascending order
f82 — message to port failure
f85 — message reception failure
f88 — process timed out
f8c — failed to close special device file
f8e — failed to release special device file
f91 — failed to unreserve UCB
f93 — failed to close ECD
f96 — terminated externally with signal
f99 — see DKDRV report on the ROP
f9c — read of the SCSI defect list header failed
f9f — see DKDRV report on the ROP
fa2 — read of the SCSI defect list failed
fa5 — failed to get the segment number
fa8 — message to port failure

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fab — message reception failure
fae — failed to get the segment number
fb1 — see DKDRV report on the ROP
fb3 — SCSI "inquiry" command failed
fb5 — SCSI "inquiry" command data underflow
fb9 — drive not formatted with 512 bytes per logical block
fba — data overflow - too many block descriptors
fbd — data overflow - too many block descriptors
fc2 — failed to get the segment number
fc4 — see DKDRV report on the ROP
fc6 — SCSI "read capacity" command failed
fc9 — failed to get the segment number
fcb — see DKDRV report on the ROP
fce — SCSI "mode sense" command failed
fd2 — failed to get the segment number
fd4 — see DKDRV report on the ROP
fd6 — SCSI "mode sense" command failed
fd9 — `diskinfo()` library call failed
fdb — unknown defect limit type
fde — unexpected UCB equipage value

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

d = Number of defects written.

e = Command completion word. The command completion word is eight hexadecimal digits of the form AAAABBCC.

AAAA = SCSI job block (SJB) completion code. See "Job completion code" under "General Job Information" in DFC Output Appendix K, DFC-APPK.

BB = Status byte. See "Target SCSI status byte" under "SCSI Command Information" in DFC Output Appendix K, DFC-APPK.

CC = Fill. Not used.

f = First word of extended sense data (ESD). See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 0 of ESD.

BB = Byte 1 of ESD.

CC = Byte 2 of ESD.

DD = Byte 3 of ESD.

g = Second word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 4 of ESD.

BB = Byte 5 of ESD.

CC = Byte 6 of ESD.

DD = Byte 7 of ESD.

h = Third word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 8 of ESD.

BB = Byte 9 of ESD.

CC = Byte 10 of ESD.

DD = Byte 11 of ESD.

i = Fourth word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 12 of ESD.

BB = Byte 13 of ESD.

CC = Byte 14 of ESD.

DD = Byte 15 of ESD.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

A termination report that specifies noncompletion provides an error code that usually indicates a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

For a SCSI disk drive, the completion message may also include warnings as a result of checking the media defect count of the disk against the following.

The number of GROWN defects should be no more than a recommended limit over the useful life of the disk. If the recommended limit is exceeded, the disk drive could become unreliable.

The total number of defects (PRIMARY and GROWN) should not exceed the Lucent Technologies specification for the disk drive. If the disk has more than the number of defects allowed, the disk drive could become unreliable.

The total number of defects (PRIMARY and GROWN) on a cylinder should not exceed the recommended limit. If the number of defects on a cylinder is larger than the limit, the performance of the disk drive may degrade to the point that the disk drive may not be able to be used as a boot device in the 3B20D or 3B21D system.

SEE PROPRIETARY NOTICE ON COVER PAGE

Lucent Technologies recommends that the SCSI disk should be replaced if there is any warning output related to the above recommendations.

NOTE: For SCSI disk, after new defect blocks are loaded, all the previous information about bad blocks (defects) becomes invalid. For example, bad logical block number 3 is not physically the same block after being loaded; in fact, it is now a good block number 3. Therefore, only a new defect (or defects) detected since the previous `LOAD:MHD;DEFECT` command should be included in the specfile used for loading new defects into the `GROWN` defect list.

If Format 7 or Format 8 prints, the SCSI disk drive encountered an internal drive error. Retain a copy of the error data, then contact the next level of technical support to aid in determining the cause of the error condition.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1 through 5 have an OMDB key of 123.
Format 6 has OMDB keys of 610 and 611.
Format 7 has an OMDB key of 666.
Format 8 has an OMDB key of 663.

Output Appendixes
`DFC-APPJ`
`DFC-APPK`
`SYSERR-APP`

Input Message
`LOAD:MHD`

Output Message
`DUMP-MHD,DEF`

ID . . . . . LOAD-MHD,FIRM-A
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has seven formats.

[1] `LOAD MHD` *a* `FIRMWARE STARTED`

[2] `LOAD MHD` *a* `FIRMWARE NOT STARTED` *b c*

[3] `LOAD MHD` *a* `FIRMWARE STOPPED` *b c*

[4] `LOAD MHD` *a* `FIRMWARE ERROR` *b c*

[5] `LOAD MHD` *a* `FIRMWARE ABORTED` *b*

[6] `LOAD MHD` *a* `FIRMWARE IN PROGRESS`

[7] `LOAD MHD` *a* `FIRMWARE COMPLETED`

2. REASON FOR OUTPUT

To report the result of executing a `LOAD:MHD;FIRMWARE` command.

3. VARIABLE FIELD DEFINITIONS

a = Moving head disk (MHD) member number.

b = Process step or reason code.

f03 — failed to open firmware file
f05 — firmware file is zero bytes in size
f06 — no firmware in firmware file
f07 — failed to determine size of firmware file
f09 — failed to open ECD
f0b — failed to get UCB by name
f0d — unit must not be ACT
f10 — failed to get UCB of SBUS
f13 — controlling unit is not active
f15 — not a small computer system interface (SCSI) MHD
f17 — could not reserve MHD UCB
f19 — failed to assign special device filename for MHD
f1a — failed to open special device file for MHD
f1c — failed to set I/O mode of device file
f1f — failed to enable message reception
f21 — failed to read expected number of blocks
f27 — process timed out
f2a — failed to close special device file

SEE PROPRIETARY NOTICE ON COVER PAGE

f2c — failed to release special device file
f2f — failed to unreserve UCB
f31 — failed to close ECD
f33 — failed to close firmware file
f37 — failed to read firmware file
f39 — terminated externally with signal
f40 — unable to determine capacity of the drive
f43 — drive capacity must be 600 MB
f46 — failed to get the segment number
f49 — see DKDRV report on ROP
f4b — SCSI "inquiry" command failed
f4d — firmware incompatible with device (product ID)
f50 — failed to get the segment number
f53 — see DKDRV report on the ROP
f56 — SCSI "write buffer" command failed
f59 — failed to get the segment number
f5d — SCSI "format" command failed
f60 — failed to get the segment number
f63 — see DKDRV report on the ROP
f66 — SCSI "read capacity" command failed
f99 — message to port failure
f9c — message reception failure
f9f — see DKDRV report on the ROP
fa9 — failed to get the segment number
fb1 — SCSI "mode sense" command failed
fb2 — data overflow, too many block descriptors
fb5 — failed to get the segment number
fb9 — SCSI "mode select" command failed
fc1 — failed to read firmware header (start)
fc3 — invalid firmware header (start)
fc8 — `malloc()` of firmware header length failed
fca — failed to read firmware header (length)
fcc — failed to parse firmware header (length)
fd0 — `malloc()` of firmware body failed
fd4 — failed to read firmware header (body)
fd7 — failed to parse firmware header
fdc — invalid firmware header (end of header [EOH])
fe4 — firmware too big to download
fe7 — invalid number of data fields in firmware header
fe9 — no device information in firmware header

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

4. ACTION TO BE TAKEN

A termination report that specifies noncompletion provides an error code that usually indicates a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and retry the input request.

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Formats 1 through 5 have an OMDB key of 694.

Output Appendix
SYSERR-APP

Input Message
LOAD:MHD;FIRMWARE

ID . . . . . LOAD-MHD,FIRM-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has seven formats.

[1] `LOAD MHD` *a* `FIRMWARE STARTED`

[2] `LOAD MHD` *a* `FIRMWARE NOT STARTED` *b c*

[3] `LOAD MHD` *a* `FIRMWARE STOPPED` *b c*

[4] `LOAD MHD` *a* `FIRMWARE ERROR` *b c*

[5] `LOAD MHD` *a* `FIRMWARE ABORTED` *b*

[6] `LOAD MHD` *a* `FIRMWARE IN PROGRESS`

[7] `LOAD MHD` *a* `FIRMWARE COMPLETED`

2. REASON FOR OUTPUT

To report the result of executing a `LOAD:MHD;FIRMWARE` command.

3. VARIABLE FIELD DEFINITIONS

a = Moving head disk (MHD) member number.

b = Process step or reason code.

f03 — failed to open firmware file
f05 — firmware file is zero bytes in size
f06 — no firmware in firmware file
f07 — failed to determine size of firmware file
f09 — failed to open ECD
f0b — failed to get UCB by name
f0d — unit must not be ACT
f0e — failed to get top UCB
f0f — top UCB is not a DFC
f10 — failed to get UCB of SBUS
f13 — controlling unit is not active
f15 — not an small computer system interface (SCSI) MHD
f17 — could not reserve MHD UCB
f19 — failed to assign special device filename for MHD
f1a — failed to open special device file for MHD
f1c — failed to set I/O mode of device file
f1f — failed to enable message reception

SEE PROPRIETARY NOTICE ON COVER PAGE

f21 — failed to read expected number of blocks
f27 — process timed out
f2a — failed to close special device file
f2c — failed to release special device file
f2f — failed to unreserve UCB
f31 — failed to close ECD
f33 — failed to close firmware file
f37 — failed to read firmware file
f39 — terminated externally with signal
f40 — unable to determine capacity of the drive
f43 — drive capacity must be 600 MB
f46 — failed to get the segment number
f49 — see DKDRV report on ROP
f4b — SCSI "inquiry" command failed
f4d — firmware incompatible with device (product ID)
f50 — failed to get the segment number
f53 — see DKDRV report on the ROP
f56 — SCSI "write buffer" command failed
f59 — failed to get the segment number
f5d — SCSI "format" command failed
f60 — failed to get the segment number
f63 — see DKDRV report on the ROP
f66 — SCSI "read capacity" command failed
f99 — message to port failure
f9c — message reception failure
f9f — see DKDRV report on the ROP
fa9 — failed to get the segment number
fb1 — SCSI "mode sense" command failed
fb2 — data overflow, too many block descriptors
fb5 — failed to get the segment number
fb9 — SCSI "mode select" command failed
fc1 — failed to read firmware header (start)
fc3 — invalid firmware header (start)
fc8 — malloc() of firmware header length failed
fca — failed to read firmware header (length)
fcc — failed to parse firmware header (length)
fd0 — malloc() of firmware body failed
fd4 — failed to read firmware header (body)
fd7 — failed to parse firmware header
fdc — invalid firmware header (end of header [EOH])
fe4 — firmware too big to download
fe7 — invalid number of data fields in firmware header
fe9 — no device information in firmware header

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

4. ACTION TO BE TAKEN

SEE PROPRIETARY NOTICE ON COVER PAGE

A termination report that specifies noncompletion provides an error code that usually indicates a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and retry the input request.

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Formats 1 through 5 have an OMDB key of 694.

Output Appendix
SYSERR-APP

Input Message
LOAD:MHD;FIRMWARE

ID . . . . . LOAD-PMEM
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
LOAD PMEM a #b
ADDRESS (HEX) OLD VALUE (HEX) <- NEW VALUE (HEX)
 [c    d            <-   e]
```

2. REASON FOR OUTPUT

To report the completion status of a LOAD input message.

3. VARIABLE FIELD DEFINITIONS

a = Termination report:

- COMPLETED — The LOAD operation has been successfully completed.
- STOPPED NGADDR — The LOAD message was stopped because the address specified is not valid.
- STOPPED NGLOAD — The LOAD message was stopped because some other error occurred.
- STOPPED NGPROT — The LOAD operation was stopped because the destination address does not have write permission granted.

b = Generic access package (GRASP) execution sequence number.

c = Address of word of physical memory that was modified.

d = Original value of specified word of physical memory.

e = New value of specified word of physical memory.

4. ACTION TO BE TAKEN

If *a* is STOPPED NGADDR, recheck the program listings.

If *a* is STOPPED NGPROT, recheck the destination to verify that it indicates a writable area. To change program text, use the LOAD:UPNM input message.

5. ALARMS

None. This alarm is a manually-requested report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

Input Messages
LOAD:ADDR
LOAD:PMEM
LOAD:REG
LOAD:UVAR

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . LOAD-REG
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`LOAD REG` *a* [`,OFF` *b*] *c #d*

2. REASON FOR OUTPUT

To report the completion status of a `LOAD` input message.

3. VARIABLE FIELD DEFINITIONS

a = Register (destination of the load).

b = Offset information from input message.

c = Termination report.

`COMPLETED` — The `LOAD` operation has been successfully completed.

`STOPPED NGADDR` — The `LOAD` message was stopped because the address specified is not valid.

`STOPPED NGLOAD` — The `LOAD` message was stopped because some other error occurred.

`STOPPED NGPROT` — The `LOAD` operation was stopped because the destination address does not have write permission granted.

d = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If '*c*' is `STOPPED NGADDR`, recheck the program listings.

If '*c*' is `STOPPED NGPROT`, recheck the destination to verify that it indicates a writable area. To change program text, use the `LOAD:UPNM` input message.

5. ALARMS

None. This alarm is a manually-requested report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Key
This message has an OMDB key of 494.

Input Messages
LOAD:ADDR
LOAD:PMEM
LOAD:REG
LOAD:UVAR

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . LOAD-UVAR
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`LOAD UVAR` *a* [`,OFF` *b*] *c #d*

2. REASON FOR OUTPUT

To report the completion status of a `LOAD` input message.

3. VARIABLE FIELD DEFINITIONS

a = Utility variable (destination of the load).

b = Offset information from input message.

c = Termination report:

`COMPLETED` — The `LOAD` operation has been successfully completed.

`STOPPED NGADDR` — The `LOAD` message was stopped because the address specified is not valid.

`STOPPED NGLOAD` — The `LOAD` message was stopped because some other error occurred.

`STOPPED NGPROT` — The `LOAD` operation was stopped because the destination address does not have write permission granted.

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4. ACTION TO BE TAKEN

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If *c* is `STOPPED NGPROT`, recheck the destination to verify that it indicates a writable area. To change program text, use the `LOAD:UPNM` input message.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
This message has an OMDB key of 494.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages
LOAD:ADDR
LOAD:PMEM
LOAD:REG
LOAD:UVAR

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Section 3

Output Message Alphabetical Indexes

Message Name	Message ID	Generic
ACTV OMDB	ACTV-OMDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW AUD	ALW-AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW CONFLOG	ALW-CONFLOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW DMQ	ALW-DMQ-A	UNIX RTR R1.5 only
ALW DMQ	ALW-DMQ-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW EAIINT	ALW-EAIINT	UNIX RTR R21.3, R21.11, R21.15 and later
ALW ERRCHK	ALW-ERRCHK-A	UNIX RTR R1.5 only
ALW ERRCHK	ALW-ERRCHK-B	UNIX RTR R6.4 only
ALW ERRCHK	ALW-ERRCHK-C	UNIX RTR R21.3, R21.11, R21.15 and later
ALW ERRINT	ALW-ERRINT-A	UNIX RTR R1.5 only
ALW ERRINT	ALW-ERRINT-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW ERRSRC	ALW-ERRSRC-A	UNIX RTR R1.5 only
ALW ERRSRC	ALW-ERRSRC-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW FILESYS ACCESS	ALW-F,ACCESS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW FILESYS MOUNT	ALW-F,MOUNT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW FILESYS OWNER	ALW-F,OWNER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW HDWCHK	ALW-HDWCHK-A	UNIX RTR R1.5 only
ALW HDWCHK	ALW-HDWCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW REX	ALW-REX	UNIX RTR R21.3, R21.11, R21.15 and later
ALW SCSD	ALW-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
ALW SFTCHK	ALW-SFTCHK-A	UNIX RTR R1.5 only
ALW SFTCHK	ALW-SFTCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW UMEM	ALW-UMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW UTIL	ALW-UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW UTILFLAG	ALW-UTILFLAG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ANALY TLPFILE	ANALY-TLPFILE-A	UNIX RTR R1.5, R6.4, and R21.3,
ANALY TLPFILE	ANALY-TLPFILE-B	UNIX RTR R21.11, R21.15, R21.17 and R21.31
ANALY TLPFILE	ANALY-TLPFILE-C	UNIX RTR R21.23, R21.27 and R21.30
ANALY TLPFILE	ANALY-TLPFILE-D	UNIX RTR R21.35 and later
APPENDIX ACKDGMNT DATABASE	APP-ACK-DB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT A	APP-AUD-APPA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT B	APP-AUD-APPB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT C	APP-AUD-APPC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT D	APP-AUD-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUTHORITY CODE	APP-AUTH-CODE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX BOOTDISKCHK	APP-BOOTDISKCHK	UNIX RTR R21.27 and later
APPENDIX DCI A	APP-DCI-APPA-A	UNIX RTR R21.3 and R21.11
APPENDIX DCI A	APP-DCI-APPA-B	UNIX RTR R21.15 thru R21.30
APPENDIX DCI A	APP-DCI-APPA-C	UNIX RTR R21.31 and later
APPENDIX DCI B	APP-DCI-APPB-A	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI C	APP-DCI-APPC	UNIX RTR R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
APPENDIX DCI D	APP-DCI-APPD	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI E	APP-DCI-APPE	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI F	APP-DCI-APPF	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI G	APP-DCI-APPG	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI H	APP-DCI-APPH	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DFC A	APP-DFC-APPA-A	UNIX RTR R1.5 only
APPENDIX DFC A	APP-DFC-APPA-B	UNIX RTR R6.4 only
APPENDIX DFC A	APP-DFC-APPA-C	UNIX RTR R21.3 only
APPENDIX DFC A	APP-DFC-APPA-D	UNIX RTR R21.11, R21.15, 21.19 thru 21.25
APPENDIX DFC A	APP-DFC-APPA-F	UNIX RTR R21.23 only
APPENDIX DFC A	APP-DFC-APPA-G	UNIX RTR R21.27 and R21.30
APPENDIX DFC A	APP-DFC-APPA-H	UNIX RTR R21.31, R21.33 and later
APPENDIX DFC B	APP-DFC-APPB-A	UNIX RTR R1.5 and R6.4
APPENDIX DFC B	APP-DFC-APPB-B	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DFC C	APP-DFC-APPC-A	UNIX RTR R1.5 and R6.4
APPENDIX DFC C	APP-DFC-APPC-B	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DFC D	APP-DFC-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC E	APP-DFC-APPE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC F	APP-DFC-APPF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC G	APP-DFC-APPG-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
APPENDIX DFC G	APP-DFC-APPG-B	UNIX RTR R21.11 and R21.15
APPENDIX DFC H	APP-DFC-APPH-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
APPENDIX DFC H	APP-DFC-APPH-B	UNIX RTR R21.11 and R21.15
APPENDIX DFC I	APP-DFC-APPI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
APPENDIX DFC J	APP-DFC-APPJ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC K	APP-DFC-APPK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC L	APP-DFC-APPL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC M	APP-DFC-APPM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC N	APP-DFC-APPN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC O	APP-DFC-APPO	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC P	APP-DFC-APPP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX FAULT CODE	APP-FAULT-CODE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX FIELD MAINT CODES	APP-FMC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX FLD UDATE ERROR CODES	APP-FUEC-APP	UNIX R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP A	APP-IOP-APPA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP B	APP-IOP-APPB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP C	APP-IOP-APPC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP D	APP-IOP-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP E	APP-IOP-APPE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP F	APP-IOP-APPF-A	UNIX RTR R1.5 and R6.4
APPENDIX IOP F	APP-IOP-APPF-B	UNIX RTR R21.3, R21.11, R21.15 thru R21.25
APPENDIX IOP F	APP-IOP-APPF-C	UNIX RTR R21.27 and later

Message Name	Message ID	Generic
APPENDIX IOP G	APP-IOP-APPG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP H	APP-IOP-APPH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP I	APP-IOP-APPI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP J	APP-IOP-APPJ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX LLA	APP-LLA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MEMBER NUMBERS B	APP-MEM-NUM-APPB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MEMBER NUMBERS C	APP-MEM-NUM-APPC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MEMBER NUMBERS D	APP-MEM-NUM-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MESSAGE CLASS	APP-MSGCLASS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX OMDB X REF	APP-OMDB-REF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX OP FNAME	APP-OP-FNAME	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX OST	APP-OST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX SUPR	APP-SUPR-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
APPENDIX SUPR	APP-SUPR-B	UNIX RTR R21.27 and later
APPENDIX SUPR MENU PAGE	APP-SUPR-MENU-PG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX SYSTEM ERROR CODES	APP-SYSERR-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
APPENDIX SYSTEM ERROR CODES	APP-SYSERR-B	UNIX RTR R21.11 and R21.15
APPENDIX TAPE LIBRARY ERRORS	APP-TAPE-LIB	UNIX RTR R21.15 and later
APPENDIX UTILITY ID	APP-UTIL-ID-A	UNIX RTR R1.5, R6.4, R21.3, and R21.11
APPENDIX UTILITY ID	APP-UTIL-ID-B	UNIX RTR R21.15 and later

Message Name	Message ID	Generic
APPLY OMDB	APPLY-OMDB-A	UNIX RTR R1.5 only
APPLY OMDB	APPLY-OMDB-B	UNIX RTR R6.4 and R21.3
APPLY OMDB	APPLY-OMDB-C	UNIX RTR R21.11, R21.15 and later
AUD CUMEM	AUD-CUMEM-A	UNIX RTR R1.5 only
AUD CUMEM	AUD-CUMEM-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD CUSTAT	AUD-CUSTAT-A	UNIX RTR R1.5 only
AUD CUSTAT	AUD-CUSTAT-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD ECD	AUD-ECD-A	UNIX RTR R1.5 only
AUD ECD	AUD-ECD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD ECDOWN	AUD-ECDOWN-A	UNIX RTR R1.5 only
AUD ECDOWN	AUD-ECDOWN-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 1	AUD-FMGR1-A	UNIX RTR R1.5 only
AUD FMGR 1	AUD-FMGR1-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 2	AUD-FMGR2-A	UNIX RTR R1.5 only
AUD FMGR 2	AUD-FMGR2-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 3	AUD-FMGR3-A	UNIX RTR R1.5 only
AUD FMGR 3	AUD-FMGR3-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 4	AUD-FMGR4-A	UNIX RTR R1.5 only
AUD FMGR 4	AUD-FMGR4-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 5	AUD-FMGR5-A	UNIX RTR R1.5 only
AUD FMGR 5	AUD-FMGR5-B	UNIX RTR R6.4 only
AUD FMGR 5	AUD-FMGR5-C	UNIX RTR R21.3, R21.11, R21.15 and later
AUD FMGR 6	AUD-FMGR6-A	UNIX RTR R1.5 only
AUD FMGR 6	AUD-FMGR6-B	UNIX RTR R6.4, R21.11, R21.15 thru R21.27
AUD FMGR 6	AUD-FMGR6-C	UNIX RTR R21.3, R21.29 and later
AUD FMGR 7	AUD-FMGR7-A	UNIX RTR R1.5 only
AUD FMGR 7	AUD-FMGR7-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
AUD FMGR 8	AUD-FMGR8-A	UNIX RTR R1.5 only
AUD FMGR 8	AUD-FMGR8-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 9	AUD-FMGR9-A	UNIX RTR R1.5 only
AUD FMGR 9	AUD-FMGR9-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FSBLK	AUD-FSBLK-A	UNIX RTR R1.5 only
AUD FSBLK	AUD-FSBLK-B	UNIX RTR R6.4 only
AUD FSBLK	AUD-FSBLK-C	UNIX RTR R21.3 and R21.11
AUD FSBLK	AUD-FSBLK-D	UNIX RTR R21.15 and later
AUD FSCMPT	AUD-FSCMPT-A	UNIX RTR R1.5 only
AUD FSCMPT	AUD-FSCMPT-B	UNIX RTR R6.4 only
AUD FSCMPT	AUD-FSCMPT-C	UNIX RTR R21.3 and R21.11
AUD FSCMPT	AUD-FSCMPT-D	UNIX RTR R21.15 and later
AUD FSLINK	AUD-FSLINK-A	UNIX RTR R1.5 only
AUD FSLINK	AUD-FSLINK-B	UNIX RTR R6.4 only
AUD FSLINK	AUD-FSLINK-C	UNIX RTR R21.3 and R21.11
AUD FSLINK	AUD-FSLINK-D	UNIX RTR R21.15 and later
AUD MMGR	AUD-MMGR-A	UNIX RTR R1.5 only
AUD MMGR	AUD-MMGR-B	UNIX RTR R6.4 only
AUD MMGR	AUD-MMGR-C	UNIX RTR R21.3, R21.11, R21.15 and later
AUD MSGBUF	AUD-MSGBUF-A	UNIX RTR R1.5 only
AUD MSGBUF	AUD-MSGBUF-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD PMS	AUD-PMS-A	UNIX RTR R1.5 only
AUD PMS	AUD-PMS-B	UNIX RTR R6.4, R21.11, R21.15 and R21.17
AUD PMS	AUD-PMS-C	UNIX RTR R21.3, R21.19 and later
AUD PROAD	AUD-PROAD-A	UNIX RTR R1.5 only
AUD PROAD	AUD-PROAD-B	UNIX RTR R6.4 only
AUD PROAD	AUD-PROAD-C	UNIX RTR R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
CFR DUPLEXDISKS	CFR-DUPLEXDISKS	UNIX R21.27 and later
CLR EMERDMP	CLR-EMERDMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR FILESYS DIR	CLR-F,DIR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR FILESYS FILE	CLR-F,FILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR FANALM	CLR-FANALM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR IMCAT	CLR-IMCAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR IODRV	CLR-IODRV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR IOMEM	CLR-IOMEM	UNIX RTR R21.27 and later
CLR MHD MAEC	CLR-M,MAEC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
CLR PTN	CLR-PTN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR UMEM	CLR-UMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR UTIL	CLR-UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR UTILFLAG	CLR-UTILFLAG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CMPR DISK CORE	CMPR-D,CORE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CMPR MHD	CMPR-MHD-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
CMPR MHD	CMPR-MHD-B	UNIX RTR R21.11 and R21.15
COPY ACTDISK	COPY-ACTDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY ADDR	COPY-ADDR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY BKDISK	COPY-BKDISK-A	UNIX RTR R1.5 and R6.4
COPY BKDISK	COPY-BKDISK-B	UNIX RTR R21.3 and R21.11
COPY BKDISK	COPY-BKDISK-C	UNIX RTR R21.15 and later
COPY BKTAPE	COPY-BKTAPE	UNIX RTR R21.15 and later

Message Name	Message ID	Generic
COPY DIFF SRC	COPY-DIFF,SRC-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
COPY DIFF SRC	COPY-DIFF,SRC-B	UNIX RTR R21.11 and R21.15
COPY FILESYS CFILE	COPY-F,CFILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY FILESYS FILE	COPY-F,FILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY OOSDISK	COPY-OOSDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY PTN ALL	COPY-P,ALL-A	UNIX RTR R1.5, R6.4, R21.3 and R21.11
COPY PTN ALL	COPY-P,ALL-B	UNIX RTR R21.15 and later
COPY PID	COPY-PID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY REG	COPY-REG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY SPDISK	COPY-SPDISK-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
COPY SPDISK	COPY-SPDISK-B	UNIX RTR R21.27 and later
COPY TAPE EMERDMP	COPY-T,EMERDMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE IN	COPY-T,IN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE OUT	COPY-T,OUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE TEST	COPY-T,TEST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE TOP	COPY-T,TOP	UNIX RTR R21.3, R21.11, R21.15 and later
COPY UID	COPY-UID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY UVAR	COPY-UVAR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CU RECOVERY	CU-RECOVERY	UNIX RTR R21.11, R21.15 and later
DEL LOG	DEL-LOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
DGN AUDIT	DGN-AUDIT	UNIX RTR R1.5 only
DGN CU	DGN-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN CU MASC	DGN-CU,MASC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN DCI	DGN-DCI	UNIX RTR R21.3, R21.11, R21.15 and later
DGN DFC	DGN-DFC-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
DGN DFC	DGN-DFC-B	UNIX RTR R21.27 and later
DGN DUIC	DGN-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN HSDC	DGN-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN IOP	DGN-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN MHD	DGN-MHD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN MT	DGN-MT	UNIX RTR R21.3, R21.11, R21.15 and later
DGN MTC	DGN-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN MTTYC	DGN-MTTYC-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
DGN MTTYC	DGN-MTTYC-B	UNIX RTR R21.27 and later
DGN SCSDC	DGN-SDSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN SDLC	DGN-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN TTYC	DGN-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP ADDR	DUMP-ADDR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP BKTAPE	DUMP-BKTAPE	UNIX RTR R21.15 and later
DUMP CACHE	DUMP-CACHE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP FILE ALL	DUMP-F,ALL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
DUMP FILE FORMAT	DUMP-F,FORMAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP FILE PARTL	DUMP-F,PARTL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP KERN	DUMP-KERN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP MHD BLOCK	DUMP-MHD,BLK-A	UNIX RTR R1.5 only
DUMP MHD BLOCK	DUMP-MHD,BLK-B	UNIX RTR R6.4 only
DUMP MHD BLOCK	DUMP-MHD,BLK-C	UNIX RTR R21.3, R21.11, R21.15 and later
DUMP MHD DEFECT	DUMP-MHD,DEF-A	UNIX RTR R1.5 only
DUMP MHD DEFECT	DUMP-MHD,DEF-B	UNIX RTR R6.4 only
DUMP MHD DEFECT	DUMP-MHD,DEF-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.21
DUMP MHD DEFECT	DUMP-MHD,DEF-D	UNIX RTR R21.23 and later
DUMP MHD VTOC	DUMP-MHD,VTO-A	UNIX RTR R1.5 only
DUMP MHD VTOC	DUMP-MHD,VTO-B	UNIX RTR R6.4 only
DUMP MHD VTOC	DUMP-MHD,VTO-C	UNIX RTR R21.3, R21.11, R21.15 and later
DUMP PID	DUMP-PID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP PMEM	DUMP-PMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP REG	DUMP-REG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP UID	DUMP-UID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP UVAR	DUMP-UVAR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX CU	EX-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX DCI	EX-DCI	UNIX RTR R21.3, R21.15 and later
EX DFC	EX-DFC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX DUIC	EX-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX HSDC	EX-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
EX IOP	EX-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX LDPARM	EX LDPARM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX LOOP	EX-LOOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX MHD	EX-MHD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX MT	EX-MT	UNIX RTR R21.3, R21.11, R21.15 and later
EX MTC	EX-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX MTTYC	EX-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX PAUSE	EX-PAUSE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX SCSDC	EX-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX SDLC	EX-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
EX STEP	EX-STEP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX STOP	EX-STOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX TTYC	EX-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EXC ENVIR PROC	EXC-E,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EXC ENVIR UPROC	EXC-E,UPROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EXC OFLBOOT	EXC-OFLBOOT-A	UNIX RTR R21.3 and R21.11
EXC OFLBOOT	EXC-OFLBOOT-B	UNIX RTR R21.15 and later
IN FILE APND	IN-F,APND	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN FILE DEL	IN-F,DEL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN FILE REPL	IN-F,REPL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN FILESYS DIR	IN-FI,DIR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
IN REMOTE	IN-REM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE ERROR	IN-REM,ERROR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE INITIALIZED	IN-REM,INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE STARTED	IN-REM,START	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE STOPPED	IN-REM,STOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN XFER	IN-XFER	UNIX RTR R21.11, R21.15 and later
INH AUD	INH-AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH CONFLOG	INH-CONFLOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH DMQ	INH-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH EAIINT	INH-EAIINT	UNIX RTR R21.3, R21.11, R21.15 and later
INH ERRCHK	INH-ERRCHK-A	UNIX RTR R1.5 only
INH ERRCHK	INH-ERRCHK-B	UNIX RTR R6.4 only
INH ERRCHK	INH-ERRCHK-C	UNIX RTR R21.3, R21.11, R21.15 and later
INH ERRINT	INH-ERRINT-A	UNIX RTR R1.5 only
INH ERRINT	INH-ERRINT-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH ERRSRC	INH-ERRSRC-A	UNIX RTR R1.5 only
INH ERRSRC	INH-ERRSRC-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH FILESYS UMOUNT	INH-F,UMOUNT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH HDWCHK	INH-HDWCHK-A	UNIX RTR R1.5 only
INH HDWCHK	INH-HDWCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH REX	INH-REX	UNIX RTR R21.3, R21.11, R21.15 and later
INH SCSD	INH-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
INH SFTCHK	INH-SFTCHK-A	UNIX RTR R1.5 only
INH SFTCHK	INH-SFTCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH UMEM	INH-UMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH UTIL	INH-UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH UTILFLAG	INH-UTILFLAG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INIT MHD	INIT-MHD-A	UNIX RTR R1.5 only
INIT MHD	INIT-MHD-B	UNIX RTR R6.4 only
INIT MHD	INIT-MHD-C	UNIX RTR R21.3, R21.11, R21.15 and later
INIT ULARP	INIT-ULARP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INIT UMEM	INIT-UMEM-A	UNIX RTR R1.5 only
INIT UMEM	INIT-UMEM-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
LOAD ADDR	LOAD-ADDR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
LOAD DFC PUMP	LOAD-DFC,PUMP-A	UNIX RTR R6.4 only
LOAD DFC PUMP	LOAD-DFC,PUMP-B	UNIX RTR R21.3 and R21.11
LOAD DFC PUMP	LOAD-DFC,PUMP-C	UNIX RTR R21.15 and later
LOAD DFC RAM	LOAD-DFC,RAM-A	UNIX RTR R6.4 only
LOAD DFC RAM	LOAD-DFC,RAM-B	UNIX RTR R21.3, R21.11, R21.15, and later
LOAD MHD	LOAD-MHD-A	UNIX RTR R1.5 and R6.4
LOAD MHD	LOAD-MHD-B	UNIX RTR R21.3 and R21.11
LOAD MHD	LOAD-MHD-C	UNIX RTR R21.15 and later
LOAD MHD DEFECT	LOAD-MHD,DEF-A	UNIX RTR R1.5 only
LOAD MHD DEFECT	LOAD-MHD,DEF-B	UNIX RTR R6.4 only
LOAD MHD DEFECT	LOAD-MHD,DEF-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.21
LOAD MHD DEFECT	LOAD-MHD,DEF-D	UNIX RTR R21.23 only
LOAD MHD DEFECT	LOAD-MHD,DEF-E	UNIX RTR R21.25 and later
LOAD MHD FIRMWARE	LOAD-MHD,FIRM-A	UNIX RTR R6.4 only
LOAD MHD FIRMWARE	LOAD-MHD,FIRM-B	UNIX RTR R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
LOAD PMEM	LOAD-PMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
LOAD REG	LOAD-REG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
LOAD UVAR	LOAD-UVAR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ABD	OP-ABD	UNIX RTR R21.27 and later
OP ACT	OP-ACT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP AUD	OP-AUD-A	UNIX RTR R1.5 only
OP AUD	OP-AUD-B	UNIX RTR R6.4 only
OP AUD	OP-AUD-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP AUDERR	OP-AUDERR-A	UNIX RTR R1.5 only
OP AUDERR	OP-AUDERR-B	UNIX RTR R6.4 only
OP AUDERR	OP-AUDERR-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP CFGSTAT	OP-CFGSTAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP CLK	OP-CLK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP CONTROLLER INFO	OP-CONTROLLER,INFO	UNIX RTR R21.37 and later
OP DEVICE INFO	OP-DEVICE,INFO	UNIX RTR R21.37 and later
OP DFC INFO	OP-DFC,INFO-A	UNIX RTR R1.5 only
OP DFC INFO	OP-DFC,INFO-B	UNIX RTR R6.4 only
OP DFC INFO	OP-DFC,INFO-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.25
OP DFC INFO	OP-DFC-INFO-D	UNIX RTR R21.27 and later
OP DFCELOG	OP-DFCELOG-A	UNIX RTR R1.5 only
OP DFCELOG	OP-DFCELOG-B	UNIX RTR R6.4 only
OP DFCELOG	OP-DFCELOG-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP DMQ	OP-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP EMERSTAT	OP-EMERSTAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
OP ERRCHK	OP-ERRCHK-A	UNIX RTR R1.5 and R6.4
OP ERRCHK	OP-ERRCHK-B	UNIX RTR R21.3, R21.11, R21.15 and later
OP FNAME	OP-FNAME-A	UNIX RTR R1.5 and R6.4
OP FNAME	OP-FNAME-B	UNIX RTR R21.3, R21.11, R21.15 and later
OP GEN READLOG	OP-G,READLOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP GROW	OP-GROW	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP INIT	OP-INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP IODRV	OP-IODRV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP IOP INFO	OP-IOP,INFO	UNIX RTR R21.27 and later
OP LOG	OP-LOG-A	UNIX RTR R1.5 and R6.4
OP LOG	OP-LOG-B	UNIX RTR R21.3, R21.,11, R21.15 and later
OP MEMERRS	OP-MEMERRS-A	UNIX RTR R1.5 only
OP MEMERRS	OP-MEMERRS-B	UNIX RTR R6.4 only
OP MEMERRS	OP-MEMERRS-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP MHD INFO	OP-MHD,INFO-A	UNIX RTR R1.5 only
OP MHD INFO	OP-MHD,INFO-B	UNIX RTR R6.4 only
OP MHD INFO	OP-MHD,INFO-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.25
OP MHD INFO	OP-MHD,INFO-D	UNIX RTR R21.27 and later
OP MT INFO	OP-MT,INFO	UNIX RTR R21.3, R21.11, R21.15 and later
OP OFL	OP-OFL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP OMDB	OP-OMDB-A	UNIX RTR R1.5, R6.4 and R21.3
OP OMDB	OP-OMDB-B	UNIX RTR R21.11, R21.15 and later

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Message Name	Message ID	Generic
OP OOS	OP-OOS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP PMCR ERROR	OP-PMCR-A	UNIX RTR R1.5, R6.4 and R21.3
OP PMCR ERROR	OP-PMCR-B	UNIX RTR R21.11, R21.15 and later
OP REXINH	OP-REXINH-A	UNIX RTR R1.5 and R6.4
OP REXINH	OP-REXINH-B	UNIX RTR R21.3, R21.11, R21.15 and later
OP SCSD	OP-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS DISKUSE	OP-ST,DISKUSE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS FILESYS	OP-ST,FILESYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS FREEDISK	OP-ST,FRDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP TATUS LISTDIR	OP-ST,LSTDIR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS PORTS	OP-ST,PORTS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS PROCESS	OP-ST,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS SUM	OP-ST,SUM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STBY	OP-STBY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ULARP COMMAND	OP-ULARP,COM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ULARP EXECSEQ	OP-ULARP,EXEC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ULARP PROCESS	OP-ULARP,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP UMEM	OP-UMEM-A	UNIX RTR R1.5 only
OP UMEM	OP-UMEM-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
OP UNAV	OP-UNAV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP UNEQIP	OP-UNEQIP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
OP UTIL	OP-UTIL-A	UNIX RTR R1.5 only
OP UTIL	OP-UTIL-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
OP VERSION	OP-VERSION	UNIX RTR R21.11, R21.15 and later
ORD SCSD	ORD-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
PRM 0	PRM-0	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTECD VFY	RCV-DMTECD,VFY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTSG VFY	RCV-DMTSG,VFY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU	RCV-MENU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCVRY ALARM	RCVRY-ALARM	UNIX RTR R21.11, R21.15 and later
RCVRY CU	RCVRY-CU	UNIX RTR R1.5 only
RCVRY DUI	RCVRY-DUI	UNIX RTR R1.5 only
RCVRY DUIC	RCVRY-DUIC	UNIX RTR R1.5 only
RCVRY HSD	RCVRY-HSD	UNIX RTR R1.5 only
RCVRY HSDC	RCVRY-HSDC	UNIX RTR R1.5 only
RCVRY IOP	RCVRY-IOP	UNIX RTR R1.5 only
RCVRY MT	RCVRY-MT	UNIX RTR R1.5 only
RCVRY MTC	RCVRY-MTC	UNIX RTR R1.5 only
RCVRY MTTY	RCVRY-MTTY	UNIX RTR R1.5 only
RCVRY MTTYC	RCVRY-MTTYC	UNIX RTR R1.5 only
RCVRY ROP	RCVRY-ROP	UNIX RTR R1.5 only
RCVRY SCC	RCVRY-SCC	UNIX RTR R1.5 only
RCVRY SCSDC	RCVRY-SCSDC	UNIX RTR R1.5 only
RCVRY SDL	RCVRY-SDL	UNIX RTR R1.5 only
RCVRY SDLC	RCVRY-SDLC	UNIX RTR R1.5 only
RCVRY TTY	RCVRY-TTY	UNIX RTR R1.5 only
RCVRY TTYC	RCVRY-TTYC	UNIX RTR R1.5 only
REPT ADP	REPT-ADP-A	UNIX RTR R1.5 only
REPT ADP	REPT-ADP-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT ADP AUTORST	REPT-ADP,AUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT ADP INHIBIT ACTIVE	REPT-ADP,INHIBIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ADP INTERFACE ERROR	REPT-ADP,INTER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ADPAB	REPT-ADPAB-A	UNIX RTR R1.5 only
REPT ADPAB	REPT-ADPAB-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT ANALY TLP	REPT-ANALY,TLP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT AUDSTAT	REPT-AUDSTAT-A	UNIX RTR R1.5 only
REPT AUDSTAT	REPT-AUDSTAT-B	UNIX RTR R6.4 only
REPT AUDSTAT	REPT-AUDSTAT-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT AUTORST FAILURE	REPT-AUTORST-A	UNIX RTR R1.5 only
REPT AUTORST FAILURE	REPT-AUTORST-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT BAD ALIGN	REPT-BAD,ALIGN	UNIX RTR R1.5 only
REPT BAD OST	REPT-BAD,OST	UNIX RTR R1.5 only
REPT BAD PRTY DIO	REPT-BAD,PRTY-DIO	UNIX RTR R1.5 only
REPT BAD PRTY DMA	REPT-BAD,PRTY-DMA	UNIX RTR R1.5 only
REPT BDG	REPT-BDG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT BWMINT	REPT-BWMINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CCIO COMMAND	REPT-CCIO,CMD	UNIX RTR R1.5 only
REPT CCIO DATA PARITY	REPT-CCIO,DATA	UNIX RTR R1.5 only
REPT CD CIA	REPT-CD,CIA0	UNIX RTR R21.3, R21.11, R21.15 and later
REPT C/D DLGGETTY	REPT-CD,DLGGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT C/D ERROR	REPT-CD,ERROR-A	UNIX RTR R1.5 only
REPT C/D ERROR	REPT-CD,ERROR-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT C/D GETTY	REPT-CD,GETTY-A	UNIX RTR R1.5 only
REPT C/D GETTY	REPT-CD,GETTY-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT C/D POKER	REPT-CD,POKER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT C/D STARTER	REPT-CD,STARTER-A	UNIX RTR R1.5 only
REPT C/D STARTER	REPT-CD,STARTER-B	UNIX RTR R6.4, R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT C/D STARTER	REPT-CD,STARTER-C	UNIX RTR R21.3 only
REPT CFT LIB	REPT-CFT,LIB-A	UNIX RTR R1.5 and R6.4
REPT CFT LIB	REPT-CFT,LIB-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT CFTSHL	REPT-CFTSHL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CONFIG FAULT	REPT-CONFIG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CONFIG RECONFIGURATION	REPT-CONFIG,REC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
REPT CSOP	REPT-CSOP-A	UNIX RTR R1.5 only
REPT CSOP	REPT-CSOP-B	UNIX RTR R6.4 only
REPT CSOP	REPT-CSOP-C	UNIX RTR R21.3 only
REPT CSOP	REPT-CSOP-D	UNIX RTR R21.11, R21.15 and later
REPT CSOP FORMATTING	REPT-CSOP,FORM-A	UNIX RTR R1.5 and R6.4
REPT CSOP FORMATTING	REPT-CSOP,FORM-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT CSOP IN	REPT-CSOP,IN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CSOP PRIM	REPT-CSOP,PRIM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CU	REPT-CU-A	UNIX RTR R1.5, R6.4, R21.3, R21.11 and R21.15
REPT CU	REPT-CU-B	UNIX RTR R21.17 and later
REPT CURSTRMV FAULT	REPT-CURSTRMV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DCI	REPT-DCI	UNIX RTR R21.3, R21.11, R21.15 thru R21.30
REPT DCI	REPT-DCI	UNIX RTR R21.31 and later
REPT DCIDIP	REPT-DCIDIP	UNIX RTR R21.17 and later
REPT DEGROWTH	REPT-DEGROWTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DFC	REPT-DFC-A	UNIX RTR R1.5 only
REPT DFC	REPT-DFC-B	UNIX RTR R6.4 only.
REPT DFC	REPT-DFC-C	UNIX RTR R21.3 only
REPT DFC	REPT-DFC-D	UNIX RTR R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT DFC PUMP	REPT-DFC,PUMP	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT DFCE	REPT-DFCE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DFCI	REPT-DFCI-A	UNIX RTR R1.5 only
REPT DFCI	REPT-DFCI-B	UNIX RTR R6.4 only
REPT DFCI	REPT-DFCI-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT DFRMVRST ERROR	REPT-DFRMVRST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DGN	REPT-DGN-A	UNIX RTR R1.5 and R6.4
REPT DGN	REPT-DGN-B	UNIX RTR R21.3 only
REPT DGN	REPT-DGN-C	UNIX RTR R21.11, R21.15 and later
REPT DGN AUDIT	REPT-DGN,AUDIT	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT DIAMON	REPT-DIAMON	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DIO ACK	REPT-DIO,ACK	UNIX RTR R1.5 only
REPT DIO READY	REPT-DIO,READY	UNIX RTR R1.5 only
REPT DIOP	REPT-DIOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DKDIP	REPT-DKDIP-A	UNIX RTR R1.5 only
REPT DKDIP	REPT-DKDIP-B	UNIX RTR R6.4 only
REPT DKDIP	REPT-DKDIP-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT DKDRV	REPT-DKDRV-A	UNIX RTR R1.5 only
REPT DKDRV	REPT-DKDRV-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT DLGGETTY	REPT-DLGGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DLGSHL	REPT-DLGSHL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DMA ADDR	REPT-DMA,ADDR	UNIX RTR R1.5 only
REPT DMA ASW	REPT-DMA,ASW	UNIX RTR R1.5 only
REPT DMA CHNL	REPT-DMA,CHNL	UNIX RTR R1.5 only

Message Name	Message ID	Generic
REPT DMA RAM	REPT-DMA,RAM	UNIX RTR R1.5 only
REPT DMA ROM	REPT-DMA,ROM	UNIX RTR R1.5 only
REPT DMQ	REPT-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DUI	REPT-DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DUIC	REPT-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT EAI	REPT-EAI-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
REPT EAI	REPT-EAI-B	UNIX RTR R21.27 and later
REPT ECDMAN	REPT-ECDMAN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT EMERGENCY DUMP	REPT-EMER,DUMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ERRPORT	REPT-ERRPORT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ERSLOT	REPT-ERSLOT-A	UNIX RTR R6.4 only
REPT ERSLOT	REPT-ERSLOT-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT FAN	REPT-FAN-A	UNIX RTR R1.5 and R6.4
REPT FAN	REPT-FAN-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT FAN MULTI	REPT-FF,MULTI-A	UNIX RTR R1.5, R21.3, R21.11, R21.15 and later
REPT FAN MULTI	REPT-FF,MULTI-B	UNIX RTR R6.4 only
REPT FAN SINGLE	REPT-FF,SING-A	UNIX RTR R1.5, R21.3, R21.11, R21.15 and later
REPT FAN SINGLE	REPT-FF,SING-B	UNIX RTR R6.4 only
REPT FIELD MAINT	REPT-FIELD,MAINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FILESYS	REPT-FILESYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR	REPT-FMGR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR DSW	REPT-FMGR,DSW	UNIX RTR R21.3, R21.11, R21.15 and later
REPT FMGR ECD	REPT-FMGR,ECD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT FMGR FILSYS	REPT-FMGR,FILSYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR MOUNT	REPT-FMGR,MOUNT	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR NONTASK FAULT	REPT-FMGR,NF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR TABLE OVERLOAD	REPT-FMGR,OVLD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR PROCESS	REPT-FMGR,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR TASK STATUS	REPT-FMGR,TS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR UMNTFLD	REPT-FMGR-UMNTFLD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR UNMNT	REPT-FMGR,UNMNT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR WNDW	REPT-FMGR,WNDW	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FUSE ALARM	REPT-FUSE,ALM	UNIX RTR R21.3, R21.11, R21.15 and later
REPT GRASP	REPT-GRASP-A	UNIX RTR R1.5 only
REPT GRASP	REPT-GRASP-B	UNIX RTR R6.4 only
REPT GRASP	REPT-GRASP-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT GROWTH	REPT-GROWTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT HSD	REPT-HSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT HSDC	REPT-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ILL INSTRCT	REPT-ILL,INSTRCT	UNIX RTR R1.5 only
REPT ILL OPRND	REPT-ILL,OPRND	UNIX RTR R1.5 only
REPT ILL STACK	REPT-ILL,STACK	UNIX RTR R1.5 only
REPT INHADM	REPT-INHADM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT INHIBIT	REPT-INHIBIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT INIT	REPT-INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT INVLD ER INT	REPT-INVLD,ER-INT	UNIX RTR R1.5 only
REPT INVLD ER NUM	REPT-INVLD,ER-NUM	UNIX RTR R1.5 only

Message Name	Message ID	Generic
REPT INVLD MNTC	REPT-INVLD,MNTC	UNIX RTR R1.5 only
REPT IO CHNL ERR	REPT-IO,CHNL-ERR	UNIX RTR R1.5 only
REPT IODRV ATTRIBUTE	REPT-IODRV,AT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IODRV	REPT-IODRV,ERR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IODRV	REPT-IODRV,ERROR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IODRV	REPT-IODRV,FAULT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IOP	REPT-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IORMVRST ERROR	REPT-IORMVRST	UNIX RTR R1.5, R6.4, R21.3, and later
REPT KAUDPRC	REPT-KAUDPRC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT KLLA	REPT-KLLA	UNIX RTR R1.5 only
REPT LIBC ARGU	REPT-LIBC,ARGU	UNIX RTR R21.3, R21.11, R21.15 and later
REPT LIBC ER STRT	REPT-LIBC,ER-STRT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT LIBC EX	REPT-LIBC,EX	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT LIBC FAULT	REPT-LIBC,FL-A	UNIX RTR R1.5 and R6.4
REPT LIBC FAULT	REPT-LIBC,FL-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT LIBC FORK	REPT-LIBC,FO	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT LIBC PROGRAM	REPT-LIBC,PROGRAM	UNIX RTR R21.3, R21.11, R21.15 and later
REPT LIBC SAVE	REPT-LIBC,SAVE	UNIX RTR R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT LIBC START	REPT-LIBC,START	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MAINTENANCE REQUESTS	REPT-MAINT,REQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MAPFILE	REPT-MAPFILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MAXINTVL	REPT-MAXINTVL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MBD	REPT-MBD	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MEMORY PRTY	REPT-MEMORY,PRTY	UNIX RTR R1.5 only
REPT MHD	REPT-MHD-A	UNIX RTR R1.5 only
REPT MHD	REPT-MHD-B	UNIX RTR R6.4 only
REPT MHD	REPT-MHD-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT MIRA	REPT-MIRA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MKDSK	REPT-MKDSK	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR001	REPT-MMGR001	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR002	REPT-MMGR002	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR003	REPT-MMGR003-A	UNIX RTR R1.5 only
REPT MMGR003	REPT-MMGR003-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR004	REPT-MMGR004	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR005	REPT-MMGR005	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MOP	REPT-MOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MT	REPT-MT-A	UNIX RTR R1.5 and R6.4
REPT MT	REPT-MT-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT MTC	REPT-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT MTTY	REPT-MTTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MTTYC	REPT-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MY STORE A	REPT-MY,STORE-A	UNIX RTR R1.5 only
REPT MY STORE B	REPT-MY,STORE-B	UNIX RTR R1.5 only
REPT MY STORE C	REPT-MY,STORE-C	UNIX RTR R1.5 and R6.4
REPT NONCORR PRTY	REPT-NONCORR,PRTY	UNIX RTR R1.5 only
REPT OFFLINE	REPT-OFFLINE	UNIX RTR R21.3, R21.11, R21.15 thru R21.33
REPT OFFLINE	REPT-OFFLINE	UNIX RTR R21.35 and later
REPT OFLBOOT	REPT-OFLBOOT	UNIX RTR R21.3, R21.11, R21.15 and later
REPT OLBCONFIG FAULT	REPT-OLBCONFIG	UNIX RTR R21.3, R21.11, R21.15 and later
REPT OUT OF RANGE MEM	REPT-OORMR	UNIX RTR R1.5 only
REPT OUT OF RANGE MEM OTHER	REPT-OORMR,OTHR	UNIX RTR R1.5 only
REPT OP PMCR	REPT-OP,PMCR-A	UNIX RTR R1.5 and R6.4
REPT OP PMCR	REPT-OP,PMCR-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT OP PMCR ERROR	REPT-OP,PMER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT OTHER STORE HARDWARE	REPT-OTHR,SHE	UNIX RTR R1.5 and R6.4
REPT OTHER STORE READ	REPT-OTHR,SRDPE	UNIX RTR R1.5 and R6.4
REPT OTHER STORE REFRESH	REPT-OTHR,SRFPE	UNIX RTR R1.5 and R6.4
REPT OTHER STORE TIME OUT	REPT-OTHR,STOE	UNIX RTR R1.5 only
REPT OUTPUT	REPT-OUTPUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PASSWORD	REPT-PASSWORD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PCPAUD	REPT-PCPAUD-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
REPT PCPAUD	REPT-PCPAUD-B	UNIX RTR R21.27 only
REPT PCPAUD	REPT-PCPAUD-C	UNIX RTR R21.29 and later
REPT PCPMD FAULT	REPT-PCPMD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PHASE	REPT-PHASE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PINV	REPT-PINV	UNIX RTR R1.5 only

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Message Name	Message ID	Generic
REPT PLDMON ERROR	REPT-PLDMON,ERR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PMDBCOPY	REPT-PMDBCOPY-A	UNIX RTR R1.5, R6.4, R21.11, R21.15 thru R21.17
REPT PMDBCOPY	REPT-PMDBCOPY-B	UNIX RTR R21.3, R21.19 and later
REPT PMGR ERROR	REPT-PMGR,ERR-A	UNIX RTR R1.5 only
REPT PMGR ERROR	REPT-PMGR,ERR-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT PMSLOT	REPT-PMSLOT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT POWER	REPT-POWER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PREPHASE	REPT-PREPHASE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PRIV INSTR VIOL	REPT-PRIV,INSTRCT	UNIX RTR R1.5 only
REPT PROTECTION VIOLATION	REPT-PROTECT,VLTN	UNIX RTR R1.5 only
REPT PARITY DIVERT	REPT-PRTY-DVRT	UNIX RTR R1.5 only
REPT PSM	REPT-PSM-A	UNIX RTR R1.5 and R6.4
REPT PSM	REPT-PSM-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT PWRFLTC	REPT-PWRFLTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY CU	REPT-RCVRY,CU	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY DUI	REPT-RCVRY,DUI	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY DUIC	REPT-RCVRY,DUIC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY HSD	REPT-RCVRY,HSD	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY HSDC	REPT-RCVRY,HSDC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY IOP	REPT-RCVRY,IOP	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY MT	REPT-RCVRY,MT	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY MTC	REPT-RCVRY,MTC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY MTTY	REPT-RCVRY,MTTY	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT RCVRY MTTYC	REPT-RCVRY,MTTYC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY ROP	REPT-RCVRY,ROP	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SCC	REPT-RCVRY,SCC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SCSDC	REPT-RCVRY,SCSDC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SDL	REPT-RCVRY,SDL	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SDLC	REPT-RCVRY,SDLC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY TTY	REPT-RCVRY,TTY	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY TTYC	REPT-RCVRY,TTYC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT REX UNABLE	REPT-REX	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT REX SUMMARY	REPT-REX,SUM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RMF	REPT-RMF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RMTGETTY	REPT-RMTGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ROP	REPT-ROP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RTS	REPT-RTS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SCC	REPT-SCC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
REPT SCSD	REPT-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SCSDA	REPT-SCSDA-A	UNIX RTR R1.5 and R6.4
REPT SCSDA	REPT-SCSDA-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT SCSDC	REPT-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

SEE PROPRIETARY NOTICE ON COVER PAGE

Message Name	Message ID	Generic
REPT SDL	REPT-SDL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SDLC	REPT-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SDLRTC	REPT-SDLRTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SDLRTN	REPT-SDLRTN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SHLGETTY	REPT-SHLGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SIM	REPT-SIM	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT SIMCHK	REPT-SIMCHK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SIND	REPT-SIND	UNIX RTR R1.5 only
REPT SINV	REPT-SINV	UNIX RTR R1.5 only
REPT SIOF ERROR	REPT-SIOF,ERROR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SOP	REPT-SOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SPL SYNTAX ERROR	REPT-SPL,SYN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SYSTEM	REPT-SYSTEM	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT TIME	REPT-TIME	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT TLP ERROR	REPT-TLP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT 3/6 MAIN CHAN ADDR	REPT-TS,MCASE	UNIX RTR R1.5 only
REPT 3/6 MAIN CHAN IO RESP	REPT-TS,MCIORE	UNIX RTR R1.5 only
REPT TTY	REPT-TTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT TTYC	REPT-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ULARP	REPT-ULARP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT UNIX INIT	REPT-UNIX,INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT VIRTUAL ADDR	REPT-VIRTUAL,ADDR	UNIX RTR R1.5 only

Message Name	Message ID	Generic
RFT FDUMP	RFT-FDUMP	UNIX RTR R1.5 only
RMV CU	RMV-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV DCI	RMV-DCI	UNIX RTR R21.3, R21.15 and later
RMV DFC	RMV-DFC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV DUI	RMV-DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV DUIC	RMV-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV HSD	RMV-HSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV HSDC	RMV-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV IOP	RMV-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV MHD	RMV-MHD-A	UNIX RTR R6.4, R21.3, R21.17 and later
RMV MHD	RMV-MHD-B	UNIX RTR R21.11 and R21.15
RMV MT	RMV-MT-A	UNIX RTR R1.5 and R6.4
RMV MT	RMV-MT-B	UNIX RTR R21.3, R21.11, R21.15 and later
RMV MTC	RMV-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV MTTY	RMV-MTTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV MTTYC	RMV-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV ROP	RMV-ROP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SBUS	RMV-SBUS-A	UNIX RTR R6.4 only
RMV SBUS	RMV-SBUS-B	UNIX RTR R21.3, R1.11, R21.15 and later
RMV SCC	RMV-SCC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SCSDC	RMV-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SDL	RMV-SDL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SDLC	RMV-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

SEE PROPRIETARY NOTICE ON COVER PAGE

Message Name	Message ID	Generic
RMV TTY	RMV-TTY	UNIX RTR R1.5, R6.4, R21.3, and later
RMV TTYC	RMV-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST CU	RST-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST DCI	RST-DCI	UNIX RTR R21.3, R21.15 and later
RST DFC	RST-DFC-A	UNIX RTR R1.5 and R6.4
RST DFC	RST-DFC-B	UNIX RTR R21.3, R21.11, R21.15 and later
RST DUI	RST-DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST DUIC	RST-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST HSD	RST-HSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST HSDC	RST-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
RST IOP	RST-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
RST MHD	RST-MHD-A	UNIX RTR R1.5 and R6.4
RST MHD	RST-MHD-B	UNIX RTR R21.3, R21.11, R21.15 and later
RST MT	RST-MT-A	UNIX RTR R1.5 and R6.4
RST MT	RST-MT-B	UNIX RTR R21.3, R21.11, R21.15 and later
RST MTC	RST-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST MTTY	RST-MTTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST MTTYC	RST-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST ROP	RST-ROP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST SBUS	RST-SBUS-A	UNIX RTR R6.4 only
RST SBUS	RST-SBUS-B	UNIX RTR R21.3, R21.11, R21.15, and later
RST SCC	RST-SCC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST SCSDC	RST-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST SDL	RST-SDL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
RST SDLC	RST-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST TTY	RST-TTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST TTYC	RST-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
SET CLK	SET-CLK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
SET IODRV	SET-IODRV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
START OF	START-OF	UNIX RTR R21.11, R21.15 and later
STOP AUD	STOP-AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
STOP BKDISK	STOP-BKDISK-A	UNIX RTR R1.5, R6.4, R21.3 and R21.11
STOP BKDISK	STOP-BKDISK-B	UNIX RTR R21.15 and later
STOP DCI	STOP-DCI	UNIX RTR R21.3, R21.11, R21.15 and later
STOP DMQ	STOP-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP EXC ANY	STOP-EXC,ANY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP EXC USER	STOP-EXC,USER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP GEN	STOP-GEN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP OFLBOOT	STOP-OFLBOOT	UNIX RTR R21.3, R21.11, R21.15 and later
STP DMQ	STP-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STP GEN	STP-GEN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
SW CU	SW-CU-A	UNIX RTR R1.5 only
SW CU	SW-CU-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
SW OFLBOOT	SW-OFLBOOT	UNIX RTR R21.3, R21.11, R21.15 and later
SW PORTSW	SW-PORTSW	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TST SPL	TST-SPL	UNIX RTR R1.5 only
UPD APPLY	UPD-APPLY	UNIX RTR R1.5, R6.4 and R21.3
UPD AUTOCHK REPORT	UPD-AUTOCHK	UNIX RTR R21.11, R21.15 and later
UPD AUTOMATION	UPD-AUTOMATION	UNIX RTR R21.11, R21.15 and later
UPD BKOUT	UPD-BKOUT	UNIX RTR R1.5, R6.4 and R21.3
UPD BLDBOOT	UPD-BLDBOOT	UNIX RTR R1.5, R6.4, R21.3 R21.11, R21.15 and later
UPD CLR	UPD-CLR	UNIX RTR R1.5, R6.4 and R21.3
UPD COMMAND	UPD-COMMAND	UNIX RTR R21.11, R21.15 and later
UPD CSCANS	UPD-CSCANS	UNIX RTR R21.11, R21.15 and later
UPD CSCANS REPORT	UPD-CSCANS-REPT	UNIX RTR R21.11, R21.11, R21.15 and later
UPD DFC FLASH	UPD-DFC,FLASH	UNIX RTR R21.11, R21.15 and later
UPD DISPLAY	UPD-DISPLAY-A	UNIX RTR R1.5, R6.4 and R21.3
UPD DISPLAY	UPD-DISPLAY-B	UNIX RTR R21.11, R21.15 and later
UPD FLASH	UPD-FLASH	UNIX RTR R21.11, R21.15 and later
UPD FTRC	UPD-FTRC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN APPLPROC	UPD-G,APPLPROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN BACKOUT	UPD-G,BKOUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN COMMIT	UPD-G,COMMIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN CONTINUE	UPD-G,CONT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN ENTER	UPD-G,ENTER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN PROCEED	UPD-G,PROCD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
UPD GEN RESTORE	UPD-G,RESTR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
UPD ISG	UPD-ISG-A	UNIX RTR R1.5 and R6.4
UPD ISG	UPD-ISG-B	UNIX RTR R21.3, R21.11, R21.15 and later
UPD OMDB	UPD-OMDB-A	UNIX RTR R1.5, R6.4 and R21.3
UPD OMDB	UPD-OMDB-B	UNIX RTR R21.11, R21.15 and later
UPD OMIT	UPD-OMIT	UNIX RTR R1.5, R6.4 and R21.3
UPD PERM	UPD-PERM	UNIX RTR R1.5, R6.4 and R21.3
UPD PURGE	UPD-PURGE	UNIX RTR R1.5, R6.4 and R21.3
UPD RECLAIM	UPD-RECLAIM	UNIX RTR R1.5, R6.4 and R21.3
UPD REPT	UPD-REPT-A	UNIX RTR R1.5, R6.4 and R21.3
UPD REPT	UPD-REPT-B	UNIX RTR R21.11, R21.15 and later
UPD RESET	UPD-RESET	UNIX RTR R1.5, R6.4 and R21.3
UPD UPNM	UPD-UPNM	UNIX RTR R1.5, R6.4 and R21.3
UPD VERSION	UPD-VERSION	UNIX RTR R21.11, R21.15 and later
UPD VFY	UPD-VFY	UNIX RTR R1.5, R6.4 and R21.3
UPD VFYCON	UPD-VFYCON	UNIX RTR R21.11, R21.15 and later
VFY FILE	VFY-FILE-A	UNIX RTR R1.5 only
VFY FILE	VFY-FILE-B	UNIX RTR R6.4 only
VFY FILE	VFY-FILE-C	UNIX RTR R21.3, R21.11, R21.15 and later
VFY MHD	VFY-MHD-A	UNIX RTR R1.5 only
VFY MHD	VFY-MHD-B	UNIX RTR R6.4 only
VFY MHD	VFY-MHD-C	UNIX RTR R21.3, R21.11, R21.15 and later
VFY PAUTH	VFY-PAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
VFY PCGRP	VFY-PCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
VFY PROFL	VFY-PROFL	UNIX RTR R21.3, R21.11, R21.15 and later
VFY TAPE	VFY-TAPE-A	UNIX RTR R1.5, R6.4, R21.3 and R21.11
VFY TAPE	VFY-TAPE-B	UNIX RTR R21.15 and later

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Message Name	Message ID	Generic
VFY TAUTH	VFY-TAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
VFY TCGRP	VFY-TCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
WHEN COND	WHEN-COND	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
WHEN PID	WHEN-PID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
WHEN UID	WHEN-UID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . OP-ABD
GENERIC . . . . . UNIX RTR 21.27 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1]
```
OP ABD STOPPED
{HARDWARE PLATFORM NOT VALID FOR ALTERNATE BOOT DISK |
ALTERNATE BOOT DISK FEATURE UNAVAILABLE |
CANNOT CREATE BOOTDISKCHK PROCESS |
CANNOT SEND MESSAGE TO BOOTDISKCHK PROCESS |
DID NOT RECEIVE MESSAGE FROM BOOTDISKCHK PROCESS |
CANNOT GET ECD DATA SEGMENTS |
CANNOT ATTACH TO ECD DATA SEGMENTS |
CANNOT GET ECDORG RID |
NO UCB RID FOUND FOR DEVICE WITHIN THE ECD |
CANNOT CREATE DATA FILE FOR REPORT |
DID NOT RECEIVE USER EVENT FROM BOOTDISKCHK PROCESS |
BOOTDISKCHK PROCESS TERMINATED WITH EXIT VALUE a}
```

[2]
```
OP ABD IN PROGRESS
```

[3]
```
OP ABD COMPLETED
MHD  STATUS  REASON  DATE
 b      c      [d [e]]   [f]
```

2. REASON FOR OUTPUT

To display a list of available Alternate Boot Disk units and specify whether or not the unit may be used as a boot disk. If a unit is determined to be a valid boot disk, the date of the last update to the disk will be output if applicable. Otherwise, a special code will be output to explain why the unit cannot be used as a boot disk or why a determination could not be made.

NOTE: Only data from the primary partitions is used to determine if a unit is a valid boot disk. No checking is done on the backup partitions.

3. VARIABLE FIELD DEFINITIONS

a = Exit value of */unixutil/disk/bootdiskchk* process. See Bootdiskchk Codes Appendix, BOOTDISKCHK-APP, Exit Codes.

b = Unit number. See Input/Output Member Numbers Appendix, MEM-NUM-APPC, Table C.

c = Boot status.

- YES — The unit is bootable from its primary partitions.
- NO — The unit is not bootable from its primary partitions.

SEE PROPRIETARY NOTICE ON COVER PAGE

d = A code to indicate why the unit was not marked as a valid boot disk. See Bootdiskchk Codes Appendix, BOOTDISKCHK-APP, Result Codes.

e = System error code number. See System Error Codes Output Appendix, APP-SYSERR.

f = Date when the boot disk was last updated.

4. ACTION TO BE TAKEN

If the description of the error is not self-explanatory, seek technical assistance.

5. ALARMS

None. This alarm is either a manually-requested report or an automatically-generated report for information only.

6. REFERENCES

OMDB Key(s):
Formats 1 and 2 have an OMDB key of 769.
Format 3 has an OMDB key of 770.

Input Message(s)
OP:ABD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . OP-ACT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . XUNIT,MAINT

1. FORMAT

This message has eight formats.

[1]
```
OP ACT MESSAGE STARTED
UNIT        MTCE   INH   DGN
a b[c d] e   f   g
```

[2]
```
OP ACT COMPLETED
```

[3]
```
OP ACT INTERFACE ERROR,
ERRNO = h
```

[4]
```
OP ACT NOT STARTED
INVALID DATA FIELD
```

[5]
```
OP ACT NOT STARTED
RETRY LATER
```

[6]
```
OP ACT IN PROGRESS
a b[c d] e   f   g
```

[7]
```
OP ACT RETRY LATER i
```

[8]
```
OP ACT WRITE TO j
FAILED ON KEY #k
```

2. REASON FOR OUTPUT

This report contains device information specific to hardware units on communities requested via the OP:ACT input message. The format is consistent with related maintenance commands.

The exit status of this report is indicated by either the successful COMPLETED message, or the unsuccessful INTERFACE ERROR message.

3. VARIABLE FIELD DEFINITIONS

a = Unit name. Unit names are listed in the Member Numbers Appendix, MEM-NUM-APPC, Table C.

b = Unit number. See Member Numbers Appendix, MEM-NUM-APPC, Table C.

c = Subunit name, if *a* = CU. CU subunit names are listed in the Member Numbers Appendix, MEM-NUM-APPD, Table D.

d = Subunit number. See Member Numbers Appendix, MEM-NUM-APPC, Table C.

e = The current maintenance state of the unit is indicated by the following identifiers.

ACT — Active units.
OOS — Out-of-service units.
STBY — Standby units.
GROW — Units being grown.
UNAV — Unavailable units.
INIT — Initializing units.
OFL — Off-line units.
UNEQIP — Unequipped units.

f = This field indicates the current inhibit status of the associated error source. The inhibit status may either be inhibited or allowed and is represented by INH and ALW respectively.

g = The results of the last diagnostic on the unit is indicated by the following identifiers.

ATP — All tests pass.
STF — Some test failing.
NTR — No tests run.
CATP — Conditional all tests pass.
ABT — Aborted diagnostics.

h = Error number.

9 — Cannot attach to plant measurement library.
11 — Cannot open equipment configuration database (ECD) sequence.
12 — Cannot sequence unit control blocks (UCBs).

i = Retry the command later for the following reasons.

```
CANNOT SEQUENCE DATABASE
CANNOT CREATE FILE IN /tmp
CANNOT GET DATABASE RECORD ID
```

j = Temporary output file name.

k = Key associated with write failure.

4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

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5. ALARMS

This alarm is either a manually-requested report or is automatically-generated. Action may or may not be required.

6. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 49 and 477.
Format 2 has OMDB keys of 50 and 478.
Format 3 has OMDB keys of 51 and 479.
Format 6 has OMDB keys of 580 and 582.
Format 7 has OMDB keys of 588 and 589.
Format 8 has an OMDB key of 656.

Output Appendixes

```
MEM-NUM-APPC
MEM-NUM-APPD
```

Input Messages

```
OP:ACT
OP:CFGSTAT
OP:GROW
OP:INIT
OP:OFL
OP:OOS
OP:STBY
OP:UNAV
OP:UNEQIP
```

ID . . . . . OP-AUD-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1]
```
OP AUD a
ROUTINE AUDIT SCHEDULING IS b
AUDIT    AUDIT     AUDIT  MODE   INSTANCE    INS  MODE RTN
NAME   MBR    RID   INH   PERM  RID   NAME   INH  ACT  SCH BLK
 c    d    e   f   ghij  k   l    m   n   o  p
```

[2]
```
OP AUD ABORTED ECD INTERFACE ERROR q [AUDIT RID r]
```

[3]
```
OP AUD ABORTED CANNOT OPEN OUTPUT FILE s
```

[4]
```
OP AUD NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS t
RETRY LATER u
```

2. REASON FOR OUTPUT

Format 1 prints the status of the audits controlled by the system integrity monitor (SIM).

Format 2 reports an equipment configuration data base (ECD) database interface error.

Format 3 reports an error when trying to create a temporary output file.

Format 4 reports the termination status of the `OP:AUD` input message.

3. VARIABLE FIELD DEFINITIONS

a = Output message status. One of the following.

`COMPLETED`	— Final or only message segment.
`COMPLETED`	— No audit records in ECD.
`IN PROGRESS`	— Second or subsequent message segment.
`STARTED`	— First of several message segments.

b = Master audit inhibit status for all audits controlled by SIM. One of the following.

`ALLOWED` - Not inhibited.
`AUTOMATICALLY INHIBITED`
`IN UNKNOWN STATE`
`MANUALLY INHIBITED`

c = Audit name. This field is blank for all instances after the first.

d = Member number. This field is blank for all instances after the first.

e = Record identification (RID) of the audit record from the ECD. This field is blank for all instances after the first.

f = Source of the inhibit: blank if the audit is not inhibited. This field is blank for all instances after the first. One of the following.

AUTO — Automatic action.
MAN — Manual request.
??? — Unrecognized reason.

If the inhibit source is enclosed by parentheses, it indicates that the inhibit state for the audit is set. However, the inhibit has no meaning because the audit is not permitted to run in either routine or software request mode (see description for mode permission fields). This inhibit will not cause the audit to appear in the REPT-AUDSTAT report.

g = R if routine mode is allowed for audit; otherwise, this field is blank. This field is blank for all instances after the first.

h = M if manual mode is allowed for audit; otherwise, this field is blank. This field is blank for all instances after the first.

i = S if software mode is allowed for audit; otherwise, this field is blank. This field is blank for all instances after the first.

j = D if demand mode is allowed for audit; otherwise, this field is blank. This field is blank for all instances after the first.

k = Record identifier (RID) of the instance record from ECD.

l = Instance name. This field may be blank.

m = Inhibit state of a given instance of the audit; blank if the audit is not inhibited. One of the following.

AUTO — Automatic action.
MAN — Manual request.
??? — Unrecognized reason.

If the inhibit state is enclosed by parentheses, it indicates that the inhibit state for the instance is set. However, the inhibit has no meaning because the audit is not permitted to run in either routine or software request mode (see description for mode permissions fields). This inhibit will not cause the audit to appear in the REPT-AUDSTAT report.

n = Mode in which the given instance of the audit is running or blank if the instance is not running. One of the following.

DEM — Part of a recovery sequence.
MAN — Manually requested.
RTN — Routine scheduling.
SFT — Software request.
??? — Unrecognized mode.

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o = Scheduling frequency of the audit.

A through H — Frequency group of audit.
T — Timed audit.
(blank) — Audit is neither timed nor routine.

p =

Y — This instance of the audit is blocked.
(blank) — This instance of the audit is not blocked.

If Y is enclosed in parentheses, it indicates that the audit is blocked, but the block has no meaning because the audit is not permitted to run in any mode (see description for mode permission fields). This block will not cause the audit to appear in the REPT-AUDSTAT report.

q = ECD interface error number.

10 — cannot open audit record sequence
11 — cannot sequence through audit records
12 — cannot get audit record
20 — cannot open audit instance record sequence
21 — cannot sequence through instance records

r = Audit record RID.

s = Name of temporary file.

t = Explanation of error. See Audit Appendix C, AUD-APPC.

u = Explanation of error. See Audit Appendix D, AUD-APPD.

NOTE: See Audit Appendixes A and B, AUD-APPA and AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

Use the ALW:AUD input message to allow audits which should be allowed. Use the INH:AUD input message to inhibit audits which should be inhibited. Use the STOP:AUD or STP:AUD input message to stop audits which should be stopped.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 439.
Format 2 has an OMDB key of 435.
Format 3 has an OMDB key of 438.

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Appendixes
- AUD-APPA
- AUD-APPB
- AUD-APPC
- AUD-APPD

Input Messages
- ALW:AUD
- INH:AUD
- OP:AUD
- STOP:AUD
- STP:AUD

Output Message
- REPT-AUDSTAT

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ID . . . . . OP-AUD-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has five formats.

[1]
```
OP AUD a
ROUTINE AUDIT SCHEDULING IS b
AUDIT    AUDIT     AUDIT  MODE   INSTANCE    INS  MODE RTN
NAME   MBR    RID   INH   PERM  RID   NAME   INH  ACT  SCH BLK
[c]  [d]  [e]  [f] [ghij] k  [l]  [m] [n] [o] [p]
.   .   .   .  .... .   .   .   .   .   .
.   .   .   .  .... .   .   .   .   .   .
.   .   .   .  .... .   .   .   .   .   .
```

[2]
```
OP AUD ABORTED ECD INTERFACE ERROR q [AUDIT RID r]
```

[3]
```
OP AUD ABORTED CANNOT OPEN OUTPUT FILE s
```

[4]
```
OP AUD ABORTED CANNOT WRITE OUTPUT FILE s
```

[5]
```
OP AUD NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS t
RETRY LATER u
```

2. REASON FOR OUTPUT

Format 1 prints the status of the audits controlled by the system integrity monitor (SIM).

Format 2 reports an equipment configuration database (ECD) data base interface error.

Format 3 reports an error when trying to create a temporary output file.

Format 4 reports an error when writing to a temporary output file.

Format 5 reports the termination status of the `OP:AUD` input message.

3. VARIABLE FIELD DEFINITIONS

a = Output message status. One of the following.

`STARTED` — First of several message segments.

`IN PROGRESS` — Second or subsequent message segment.

`COMPLETED` — Final or only message segment.

`COMPLETED NO AUDIT RECORDS IN ECD` — Explains the lack of meaningful output. In the case of executing

OP:AUD;RUN, it means that no audits were running. In all other cases, it means that there are no audit records in the ECD.

b = Master audit inhibit status for all audits controlled by SIM. One of the following.

ALLOWED - Not inhibited.
AUTOMATICALLY INHIBITED
IN UNKNOWN STATE
MANUALLY INHIBITED

c = Audit name. This field is blank for all instances after the first.

d = Member number. This field is blank for all instances after the first.

e = Record identification (RID) of the audit record from the ECD. This field is blank for all instances after the first.

f = Source of the inhibit: blank if the audit is not inhibited. This field is blank for all instances after the first. One of the following.

AUTO — Automatic action.
MAN — Manual request.
??? — Unrecognized reason.

If the inhibit source is enclosed by parentheses, it indicates that the inhibit state for the audit is set. However, the inhibit has no meaning because the audit is not permitted to run in either routine or software request mode (see description for mode permission fields). This inhibit will not cause the audit to appear in the REPT-AUDSTAT report.

g = R if routine mode is allowed for audit; otherwise, this field is blank. This field is blank for all instances after the first.

h = M if manual mode is allowed for audit; otherwise, this field is blank. This field is blank for all instances after the first.

i = S if software mode is allowed for audit; otherwise, this field is blank. This field is blank for all instances after the first.

j = D if demand mode is allowed for audit; otherwise, this field is blank. This field is blank for all instances after the first.

k = RID of the instance record from ECD.

l = Instance name. This field may be blank.

m = Inhibit state of a given instance of the audit; blank if the audit is not inhibited. One of the following.

AUTO — Automatic action.
MAN — Manual request.
??? — Unrecognized reason.

If the inhibit state is enclosed by parentheses, it indicates that the inhibit state for the instance is set. However, the inhibit has no

meaning because the audit is not permitted to run in either routine or software request mode (see description for mode permissions fields). This inhibit will not cause the audit to appear in the REPT-AUDSTAT report.

n = Mode in which the given instance of the audit is running, or blank if the instance is not running. One of the following:.

DEM — Part of a recovery sequence.
MAN — Manually requested.
RTN — Routine scheduling.
SFT — Software request.
??? — Unrecognized mode.

o = Scheduling frequency of the audit.

A through H — Frequency group of audit.
T — Timed audit.
(blank) — Audit is neither timed nor routine.

p =

Y — This instance of the audit is blocked.

(blank) — This instance of the audit is not blocked.

If Y is enclosed in parentheses, it indicates that the audit is blocked, but the block has no meaning because the audit is not permitted to run in any mode (see description for mode permission fields). This block will not cause the audit to appear in the REPT-AUDSTAT report.

q = ECD interface error number.

10 — cannot open audit record sequence
11 — cannot sequence through audit records
12 — cannot get audit record
20 — cannot open audit instance record sequence
21 — cannot sequence through instance records

r = Audit record RID.

s = Name of temporary file.

t = Explanation of error. See Audit Appendix C, AUD-APPC.

u = Explanation of error. See Audit Appendix D, AUD-APPD.

NOTE: See Audit Appendixes A and B, AUD-APPA and AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

Use the ALW:AUD input message to allow audits which should be allowed. Use the INH:AUD input message to inhibit audits which should be inhibited. Use the STOP:AUD or STP:AUD input message to stop audits which should be stopped.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 439.
Format 2 has an OMDB key of 435.
Format 3 has an OMDB key of 438.
Format 4 has an OMDB key of 628.

Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
ALW:AUD
INH:AUD
OP:AUD
STOP:AUD
STP:AUD

Output Message
REPT-AUDSTAT

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ID . . . . . OP-AUD-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1]
```
OP AUD a
ROUTINE AUDIT SCHEDULING IS b
AUDIT    AUDIT     AUDIT  MODE   INSTANCE    INS  MODE RTN
NAME   MBR    RID   INH   PERM  RID   NAME   INH  ACT  SCH BLK
[c]  [d]  [e]  [f] [ghij] k  [l]  [m] [n] [o] [p]
.   .   .   .  .... .   .   .   .   .   .
.   .   .   .  .... .   .   .   .   .   .
.   .   .   .  .... .   .   .   .   .   .
```

[2]
```
OP AUD ABORTED ECD INTERFACE ERROR q [AUDIT RID r]
```

[3]
```
OP AUD ABORTED CANNOT OPEN OUTPUT FILE s
```

[4]
```
OP AUD ABORTED CANNOT WRITE OUTPUT FILE s
```

[5]
```
OP AUD ABORTED CANNOT CREATE TEMPORARY FILE
```

[6]
```
OP AUD NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS t
RETRY LATER u
```

2. REASON FOR OUTPUT

Format 1 prints the status of the audits controlled by the system integrity monitor (SIM).

Format 2 reports an equipment configuration data base (ECD) data base interface error.

Format 3 reports an error when trying to create a temporary output file.

Format 4 reports an error when writing to a temporary output file.

Format 5 reports an error when unable to create a uniquely named temporary file.

Format 6 reports the termination status of the `OP:AUD` input message.

3. VARIABLE FIELD DEFINITIONS

a = Output message status. One of the following:

`STARTED` — First of several message segments.

IN PROGRESS — Second or subsequent message segment.

COMPLETED — Final or only message segment.

```
COMPLETED NO AUDIT RECORDS IN ECD
COMPLETED NO AUDITS RUNNING
```

b = Master audit inhibit status for all audits controlled by SIM. One of the following.

```
ALLOWED - Not inhibited.
AUTOMATICALLY INHIBITED
IN UNKNOWN STATE
MANUALLY INHIBITED
```

c = Audit name. This field is blank for all instances after the first.

d = Member number. This field is blank for all instances after the first.

e = Record identification (RID) of the audit record from the ECD. This field is blank for all instances after the first.

f = Source of the inhibit; blank if the audit is not inhibited. This field is blank for all instances after the first. One of the following:

AUTO — Automatic action.
MAN — Manual request.
??? — Unrecognized reason.

If the inhibit source is enclosed by parentheses, it indicates that the inhibit state for the audit is set. However, the inhibit has no meaning because the audit is not permitted to run in either routine or software request mode (see description for mode permission fields). This inhibit will not cause the audit to appear in the REPT-AUDSTAT report.

g = R if routine mode is allowed for audit; otherwise, this field is blank. This field is blank for all instances after the first.

h = M if manual mode is allowed for audit; otherwise, this field is blank. This field is blank for all instances after the first.

i = S if software mode is allowed for audit; otherwise, this field is blank. This field is blank for all instances after the first.

j = D if demand mode is allowed for audit; otherwise, this field is blank. This field is blank for all instances after the first.

k = RID of the instance record from ECD.

l = Instance name. This field may be blank.

m = Inhibit state of a given instance of the audit; blank if the audit is not inhibited. One of the following.

AUTO — Automatic action.
MAN — Manual request.
??? — Unrecognized reason.

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If the inhibit state is enclosed by parentheses, it indicates that the inhibit state for the instance is set. However, the inhibit has no meaning because the audit is not permitted to run in either routine or software request mode (see description for mode permissions fields). This inhibit will not cause the audit to appear in the REPT-AUDSTAT report.

n = Mode in which the given instance of the audit is running, or blank if the instance is not running. One of the following.

DEM — Part of a recovery sequence.
MAN — Manually requested.
RTN — Routine scheduling.
SFT — Software request.
??? — Unrecognized mode.

o = Scheduling frequency of the audit.

A through H — Frequency group of audit.
T — Timed audit.
(blank) — Audit is neither timed nor routine.

p = Y — This instance of the audit is blocked.

(blank) — this instance of the audit is not blocked.

If Y is enclosed in parentheses, it indicates that the audit is blocked, but the block has no meaning because the audit is not permitted to run in any mode (see description for mode permission fields). This block will not cause the audit to appear in the REPT-AUDSTAT report.

q = ECD interface error number.

10 — cannot open audit record sequence
11 — cannot sequence through audit records
12 — cannot get audit record
20 — cannot open audit instance record sequence
21 — cannot sequence through instance records

r = Audit RID.

s = Name of temporary file.

t = Explanation of error. See Audit Appendix C, AUD-APPC.

u = Explanation of error. See Audit Appendix D, AUD-APPD.

NOTE: See Audit Appendixes A and B, AUD-APPA and AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If Formats 1, 2, or 6 prints, use the ALW:AUD input message to allow audits which should be allowed. Use the INH:AUD input message to inhibit audits which should be inhibited. Use the STOP:AUD or STP:AUD input message to stop audits which should be stopped.

Format 3 indicates all of the inodes of the tmp file system are being used. Clean up unused files in the tmp file system using CLR:FILESYS;FILE.

Format 4 indicates all tmp file system space has been used. Clean up unused files in the tmp file system using CLR:FILESYS;FILE.

Format 5 indicates system resources do not permit the running of this command at this time; retry later. If command continues to fail, seek technical assistance.

5. ALARMS

None. This automatically-generated report is for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 439, 437, and 668.
Format 2 has an OMDB key of 435.
Format 3 has an OMDB key of 438.
Format 4 has an OMDB key of 628.
Format 5 has an OMDB key of 667.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

Input Messages
ALW:AUD
INH:AUD
OP:AUD
CLR:F;FILE
STOP:AUD
STP:AUD

Output Message
REPT-AUDSTAT

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ID . . . . . OP-AUDERR-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1]
```
OP AUDERR a
 AUDIT                          ERRORS          ERROR    ERROR
NAME    MBR   INSTANCE     FOUND CORRECTED    CAT      COUNT
 b      c     d      e     f     g      h
```

[2] `OP AUDERR ABORTED ECD INTERFACE ERROR` *i* [`AUDIT RID` *j*]

[3] `OP AUDERR ABORTED CANNOT OPEN OUTPUT FILE` *k*

[4]
```
OP AUDERR NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS l
RETRY LATER m
```

2. REASON FOR OUTPUT

Format 1 prints the status of the audits controlled by the system integrity monitor (SIM).

Format 2 reports an equipment configuration database (ECD) interface error.

Format 3 reports an error when creating a temporary output file.

Format 4 reports the termination status of `OP:AUDERR` input message.

3. VARIABLE FIELD DEFINITIONS

a = Output message status:

`COMPLETED`	— Last or only segment of message.
`COMPLETED`	— No audit records in ECD.
`IN PROGRESS`	— Intermediate segment(s) of message.
`STARTED`	— First segment of message.

b = Name of the audit. This field is blank for all instances after the first.

c = Member number of the audit. This field is blank for all instances after the first.

d = Instance name which may be blank.

e = Total errors found by audit since the last bootstrap. This will be blank for all error categories after the first.

f = Total errors corrected by the audit since the last bootstrap. This will be blank for all error categories after the first.

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g = Error category (0-5).

The error categories used by an audit are specified in its equipment configuration database ECD record. Each error category represents a different level of severity and type of recovery action. For examples, look at any of the audits and their associated Audit Error Table in the *System Maintenance Manual*.

h = Error count of the category.

i = ECD interface error number:

10 — cannot open audit record sequence
11 — cannot sequence through audit records
12 — cannot get audit record
20 — cannot open audit instance record sequence
21 — cannot sequence through instance records

j = Associated audit record RID.

k = Name of temporary file.

l = Explanation of error. See Audit Appendix C, AUD-APPC.

m = Explanation of error. See Audit Appendix D, AUD-APPD.

NOTE: See Audit Appendixes A and B, AUD-APPA and AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 434.
Format 2 has an OMDB key of 435.
Format 3 has an OMDB key of 438.

Output Appendixes
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD

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Input Messages

```
AUD:CUMEM
AUD:CUSTAT
AUD:ECD
AUD:ECDOWN
AUD:FMGR
AUD:FSBLK
AUD:FSCMPT
AUD:FSLINK
AUD:MMGR
AUD:MSGBUF
AUD:PMS
AUD:PROAD
AUD:SCHED
OP:AUD
OP:AUDERR
```

Output Messages

```
AUD-CUMEM
AUD-CUSTAT
AUD-ECD
AUD-ECDOWN
AUD-FMGR1
AUD-FMGR2
AUD-FMGR3
AUD-FMGR4
AUD-FMGR5
AUD-FMGR6
AUD-FMGR7
AUD-FMGR8
AUD-FMGR9
AUD-FSBLK
AUD-FSCMPT
AUD-FSLINK
AUD-MMGR
AUD-MSGBUF
AUD-PMS
AUD-PROAD
OP-AUD
```

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ID . . . . . OP-AUDERR-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has five formats.

[1]
```
OP AUDERR a
 AUDIT                          ERRORS          ERROR    ERROR
NAME    MBR   INSTANCE     FOUND CORRECTED    CAT      COUNT
 b      c     d      e     f     g      h
```

[2] `OP AUDERR ABORTED ECD INTERFACE ERROR` *i* [`AUDIT RID` *j*]

[3] `OP AUDERR ABORTED CANNOT OPEN OUTPUT FILE` *k*

[4] `OP AUDERR ABORTED CANNOT WRITE OUTPUT FILE` *k*

[5]
```
OP AUDERR NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS l
RETRY LATER m
```

2. REASON FOR OUTPUT

Format 1 prints the status of the audits controlled by the system integrity monitor (SIM).

Format 2 reports an equipment configuration database (ECD) interface error.

Format 3 reports an error when creating a temporary output file.

Format 4 reports an error when writing to a temporary output file.

Format 5 reports the termination status of `OP:AUDERR` input message.

3. VARIABLE FIELD DEFINITIONS

a = Output message status.

- `COMPLETED` — Last or only segment of message.
- `COMPLETED` — No audit records in ECD.
- `IN PROGRESS` — Intermediate segment(s) of message.
- `STARTED` — First segment of message.

b = Name of the audit. This field is blank for all instances after the first.

c = Member number of the audit. This field is blank for all instances after the first.

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d = Instance name which may be blank.

e = Total errors found by audit since the last bootstrap. This will be blank for all error categories after the first.

f = Total errors corrected by the audit since the last bootstrap. This will be blank for all error categories after the first.

g = Error category (0-5).

The error categories used by an audit are specified in its equipment configuration database ECD record. Each error category represents a different level of severity and type of recovery action. For examples, look at any of the audits and their associated Audit Error Table in the *System Maintenance Manual*.

h = Error count of the category.

i = ECD interface error number.

10 — cannot open audit record sequence
11 — cannot sequence through audit records
12 — cannot get audit record
20 — cannot open audit instance record sequence
21 — cannot sequence through instance records

j = Associated audit record RID.

k = Name of temporary file.

l = Explanation of error. See Audit Appendix C, AUD-APPC.

m = Explanation of error. See Audit Appendix D, AUD-APPD.

NOTE: See Audit Appendixes A and B, AUD-APPA and AUD-APPB, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This alarm is either a manually-requested report or an automatically-generated report for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 434.
Format 2 has an OMDB key of 435.
Format 3 has an OMDB key of 438.
Format 4 has an OMDB key of 628.

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Appendixes
- AUD-APPA
- AUD-APPB
- AUD-APPC
- AUD-APPD

Input Messages
- AUD:CUMEM
- AUD:CUSTAT
- AUD:ECD
- AUD:ECDOWN
- AUD:FMGR
- AUD:FSBLK
- AUD:FSCMPT
- AUD:FSLINK
- AUD:MMGR
- AUD:MSGBUF
- AUD:PMS
- AUD:PROAD
- OP:AUD
- OP:AUDERR

Output Messages
- AUD-CUMEM
- AUD-CUSTAT
- AUD-ECD
- AUD-ECDOWN
- AUD-FMGR1
- AUD-FMGR2
- AUD-FMGR3
- AUD-FMGR4
- AUD-FMGR5
- AUD-FMGR6
- AUD-FMGR7
- AUD-FMGR8
- AUD-FMGR9
- AUD-FSBLK
- AUD-FSCMPT
- AUD-FSLINK
- AUD-MMGR
- AUD-MSGBUF
- AUD-PMS
- AUD-PROAD
- OP-AUD

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ID . . . . . OP-AUDERR-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1]
```
OP AUDERR a
 AUDIT                          ERRORS          ERROR    ERROR
NAME    MBR   INSTANCE     FOUND CORRECTED    CAT      COUNT
b   c   d     e   f   g    h
                      .   .
                      .   .
                      .   .
```

[2] `OP AUDERR ABORTED ECD INTERFACE ERROR` *i* [`AUDIT RID` *j*]

[3] `OP AUDERR ABORTED CANNOT OPEN OUTPUT FILE` *k*

[4] `OP AUDERR ABORTED CANNOT WRITE OUTPUT FILE` *k*

[5] `OP AUDERR ABORTED CANNOT CREATE TEMPORARY FILE`

[6]
```
OP AUDERR NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS l
RETRY LATER m
```

2. REASON FOR OUTPUT

Format 1 prints the status of the audits controlled by the system integrity monitor (SIM).

Format 2 reports an equipment configuration database (ECD) interface error.

Format 3 reports an error when creating a temporary output file.

Format 4 reports an error when writing to a temporary output file.

Format 5 reports an error when unable to create a uniquely named temporary file.

Format 6 reports the termination status of `OP:AUDERR` input message.

3. VARIABLE FIELD DEFINITIONS

a = Output message status.

`STARTED` — first segment of message

`IN PROGRESS` — intermediate segment(s) of message

`COMPLETED` — last or only segment of message

`COMPLETED NO AUDIT RECORDS IN ECD`

b = Name of the audit. This field is blank for all instances after the first.

c = Member number of the audit. This field is blank for all instances after the first.

d = Instance name which may be blank.

e = Total errors found by audit since the last bootstrap. This will be blank for all error categories after the first.

f = Total errors corrected by the audit since the last bootstrap. This will be blank for all error categories after the first.

g = Error category (0-5). The error categories used by an audit are specified in its equipment configuration database ECD record. Each error category represents a different level of severity and type of recovery action. For examples, look at any of the audits and their associated Audit Error Table in the *System Maintenance Manual*.

h = Error count of the category.

i = ECD interface error number.

`10` — cannot open audit record sequence
`11` — cannot sequence through audit records
`12` — cannot get audit record
`20` — cannot open audit instance record sequence
`21` — Cannot sequence through instance records.

j = Associated audit record identification (RID).

k = Name of temporary file.

l = Explanation of error. See Audit Appendix C, `AUD-APPC`.

m = Explanation of error. See Audit Appendix D, `AUD-APPD`.

NOTE: See Audit Appendixes A and B, `AUD-APPA` and `AUD-APPB`, for assorted parsing errors when the IM catalog is not active.

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4. ACTION TO BE TAKEN

If Formats 1, 2, or 6 prints, use the `ALW:AUD` input message to allow audits which should be allowed. Use `INH:AUD` input message to inhibit audits which should be inhibited. Use the `STOP:AUD` or `STP:AUD` input message to stop audits which should be stopped.

Format 3 indicates all of the inodes of the tmp file system are being used. Clean up unused files in the tmp file system using input message `CLR:FILESYS;FILE`.

Format 4 indicates all tmp file system space has been used. Clean up unused files in the tmp file system using input message `CLR:FILESYS;FILE`.

Format 5 indicates system resources do not permit the running of this command at this time; retry later. If command continues to fail, seek technical assistance.

5. ALARMS

None. This alarm is either a manually-requested report or an automatically-generated report for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 434.
Format 2 has an OMDB key of 435.
Format 3 has an OMDB key of 438.
Format 4 has an OMDB key of 628.
Format 5 has an OMDB key of 667.

Output Appendixes
`AUD-APPA`
`AUD-APPB`
`AUD-APPC`
`AUD-APPD`

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Input Messages

```
AUD:CUMEM
AUD:CUSTAT
AUD:ECD
AUD:ECDOWN
AUD:FMGR
AUD:FSBLK
AUD:FSCMPT
AUD:FSLINK
AUD:MMGR
AUD:MSGBUF
AUD:PMS
AUD:PROAD
CLR:F;FILE
OP:AUD
OP:AUDERR
```

Output Messages

```
AUD-CUMEM
AUD-CUSTAT
AUD-ECD
AUD-ECDOWN
AUD-FMGR1
AUD-FMGR2
AUD-FMGR3
AUD-FMGR4
AUD-FMGR5
AUD-FMGR6
AUD-FMGR7
AUD-FMGR8
AUD-FMGR9
AUD-FSBLK
AUD-FSCMPT
AUD-FSLINK
AUD-MMGR
AUD-MSGBUF
AUD-PMS
AUD-PROAD
OP-AUD
```

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ID . . . . . OP-CFGSTAT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . XUNIT,MAINT

1. FORMAT

This message has eight formats.

[1]
```
OP:CFGSTAT MESSAGE STARTED
UNIT        MTCE   INH   DGN
a b[c d] e   f   g
```

[2]
```
OP CFGSTAT COMPLETED
```

[3]
```
OP CFGSTAT INTERFACE ERROR, ERRNO=h
```

[4]
```
OP CFGSTAT NOT STARTED
INVALID DATA FIELD
```

[5]
```
OP CFGSTAT NOT STARTED
RETRY LATER
```

[6]
```
OP CFGSTAT IN PROGRESS
a b[c d] e   f   g
```

[7]
```
OP CFGSTAT RETRY LATER i
```

[8]
```
OP CFGSTAT WRITE TO j
FAILED ON KEY #k
```

2. REASON FOR OUTPUT

To give device information specific to hardware units on communities requested via the OP:CFGSTAT input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

3. VARIABLE FIELD DEFINITIONS

a = Unit name. Unit names are listed in Member Numbers Appendix, MEM-NUM-APPC, Table C.

b = Unit number. See Member Numbers Appendix, MEM-NUM-APPC, Table C.

c = Subunit name, if *a* = CU. Control unit (CU) subunit names are listed in Member Numbers Appendix, MEM-NUM-APPC, Table C.

SEE PROPRIETARY NOTICE ON COVER PAGE

d = Subunit number. See the Member Numbers Appendix, MEM-NUM-APPC, Table C.

e = The current maintenance state of the unit is indicated by the following identifiers.

ACT — Active units.
GROW — Units being grown.
INIT — Initializing units.
OFL — Off-line units.
OOS — Out-of-service units.
STBY — Standby units.
UNAV — Unavailable units.
UNEQIP — Unequipped units.

f = Current inhibit status of the associated error source.

ALW — Allowed.
INH — Inhibited.

g = The results of the last diagnostic on the unit is indicated by the following identifiers.

ABT — Aborted diagnostics.
ATP — All tests passed.
CATP — Conditional all tests passed.
NTR — No tests were run.
STF — Some tests failed.

h = Error number.

9 — cannot attach to plant measurement library
11 — cannot open equipment configuration database (ECD) sequence
12 — cannot sequence unit control blocks (UCBs)

i = Retry the message later for one of the following reasons.

```
CANNOT SEQUENCE DATABASE
CANNOT CREATE FILE IN /tmp
CANNOT GET DATABASE RECORD ID
```

j = Temporary output file name.

k = Key associated with write failure.

4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated. Action may or may not be required.

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6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 49 and 477.
Format 2 has OMDB keys of 50 and 478.
Format 3 has OMDB keys of 51 and 479.
Format 6 has OMDB keys of 580 and 582.
Format 7 has OMDB keys of 588 and 589.
Format 8 has an OMDB key of 656.

Output Appendix
`MEM-NUM-APPC`

Input Messages
`OP:ACT`
`OP:CFGSTAT`
`OP:GROW`
`OP:INIT`
`OP:OFL`
`OP:OOS`
`OP:STBY`
`OP:UNAV`
`OP:UNEQIP`

ID . . . . . OP-CLK
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
OP CLK COMPLETED
a/b/c d:e
```

2. REASON FOR OUTPUT

To print the current date and time, as requested in an `OP:CLK` input command.

3. VARIABLE FIELD DEFINITIONS

a = Month (01-12).

b = Day (01-31).

c = Last two digits of year (00-99).

d = Hour (00-23).

e = Minute (00-59).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
This message has an OMDB key of 287.

Input Messages
`OP:CLK`
`SET:CLK`

Output Message
`SET-CLK`

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ID . . . . . OP-CONTROLLER,INFO
GENERIC . . . . . UNIX RTR R21.37 and later
TYPE . . . . . Output
MESSAGE CLASS . . VAR

1. FORMAT

This message has two formats.

[1] `OP` *a b* `INFO` *c d [e]*

[2] `OP` *a b* `INFO`

```
Iop #  Pcslot   State   PackCode  Version  # Devices
-----  ------  -------  --------  -------  ---------
  f      g        h        i         j        k
 U_Name   Unit #  Port #   State   Logical Name
--------  ------  ------  -------  ------------------
   l        m       n        o         p
```

.
.
.

2. REASON FOR OUTPUT

To report the result of executing an `OP:[MTTYC,TTYC,HSDC,SDLC] a;INFO` input message.

3. VARIABLE FIELD DEFINITIONS

a = Device name.

b = Device member number.

c = Message State.

`NOT STARTED`

`STOPPED`

`ERROR`

`ABORT`

d = Process step or Error Code.

f01 — Failed to enable message reception.
f03 — Failed to open ECD.
f06 — Failed to get UCB by name.
f07 — Failed to get up UCB.
f08 — Failed to get down UCB.
f09 — Failed to get the side UCB.
f0a — UCB is not an IOP.

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f0b — UCB is not a MTTYC, TTYC, HSDC or SDLC.
f0c — UCB is not a MTTY, ROP, SCC, TTY, HSD or SDL.
f0d — There is no controller for the device.
f0e — There is no IOP for the controller.
f10 — Failed to send message to I/O driver.
f11 — Failed to unreserve UCB.
f12 — Failed to receive ack. from I/O driver.
f13 — Failed to close ECD.
f14 — Failed to reserve UCB.
f15 — A message to driver has been lost, time out.
f16 — Terminated externally with signal.

e = System error code (set by libC functions, defined in sys/errno.h).

f = Unit number of IOP for the controller.

g = Slot number of controller in IOP.

h = Major State of controller.

i = Pack code.

j = Version number of controller. If the version number is 0x----, the version number was not accessible from the controller.

k = Number of devices used in controller.

l = Unit name of device.

m = Unit number of device.

n = Port number of device in controller.

o = Major State of device under controller.

p = The logical name from the logdev record associated with the device. If the logical name cannot be obtained, an error message is displayed.

0x01 — No mdct points to ucb.
0x02 — No logdev points to mdct.
0x03 — Unable to attach ecd segments.
0x04 — Unable to connect to ecd.
0x05 — Unable to read ecdorg record.
0x06 — Unable to open sequence to read mdct records.
0x07 — Error reading mdct record.
0x08 — Unable to open sequence to read logdev records.
0x09 — Error reading logdev record.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered. If any unit of the associated IOP is reserved, however, certain fields will contain information that is not available. For more complete information, try the message again after the unit is released.

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the

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requested task. Clear the problem causing the resource limitation and try the request again.

5. ALARMS

None. This is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 766.
Format 2 has an OMDB key of 782.

Output Appendix
`SYSERR-APP`

Input Messages
`OP:CONTROLLER;INFO`

ID . . . . . OP-DEVICE,INFO
GENERIC . . . . . UNIX RTR R21.37 and later
TYPE . . . . . Output
MESSAGE CLASS . . VAR

1. FORMAT

This message has two formats.

[1] `OP` *a b* `INFO` *c d [e]*

[2]
```
OP a b INFO
Ctlr Name & Unit  PackCode  Port #   State   Logical Name
----------------  --------  ------  -------  --------------------
       f              g       h        i            j
DTR DCD DSR CTS RTS Lev 1
--- --- --- --- --- -----
 k   l   m   n   o    p
```

2. REASON FOR OUTPUT

To report the result of executing an `OP:[MTTY,ROP,SCC,TTY,HSD,SDL] a;INFO` input message.

3. VARIABLE FIELD DEFINITIONS

a = Device name.

b = Device member number.

c = Message State.

`NOT STARTED`

`STOPPED`

`ERROR`

`ABORT`

d = Process step or Error Code.

f01 — Failed to enable message reception.
f03 — Failed to open ECD.
f06 — Failed to get UCB by name.
f07 — Failed to get up UCB.
f08 — Failed to get down UCB.
f09 — Failed to get the side UCB.
f0a — UCB is not an IOP.
f0b — UCB is not a MTTYC, TTYC, HSDC or SDLC.
f0c — UCB is not a MTTY, ROP, SCC, TTY, HSD or SDL.
f0d — There is no controller for the device.

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f0e — There is no IOP for the controller.
f10 — Failed to send message to I/O driver.
f11 — Failed to unreserve UCB.
f12 — Failed to receive ack. from I/O driver.
f13 — Failed to close ECD.
f14 — Failed to reserve UCB.
f15 — A message to driver has been lost, time out.
f16 — Terminated externally with signal.

e = System error code (set by libC functions, defined in sys/errno.h).

f = Name and unit number of controller for the device.

g = Pack code.

h = Port number.

i = Major States.

j = The logical name from the logdev record associated with the device. If the logical name cannot be obtained, an error message is displayed.

0x01 — No mdct points to ucb.
0x02 — No logdev points to mdct.
0x03 — Unable to attach ecd segments.
0x04 — Unable to connect to ecd.
0x05 — Unable to read ecdorg record.
0x06 — Unable to open sequence to read mdct records.
0x07 — Error reading mdct record.
0x08 — Unable to open sequence to read logdev records.
0x09 — Error reading logdev record.

k = Data Terminal Ready.

\- — the data was not accessible from the controller.
0 — the signal was not asserted.
1 — the signal was asserted.

l = Data Carrier Detect.

\- — the data was not accessible from the controller.
0 — the signal was not asserted.
1 — the signal was asserted.

m = Data Set Ready.

\- — the data was not accessible from the controller.
0 — the signal was not asserted.
1 — the signal was asserted.

n = Clear To Send.

\- — the data was not accessible from the controller.
0 — the signal was not asserted.
1 — the signal was asserted.

o = Ready To Send.

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- — the data was not accessible from the controller.
0 — the signal was not asserted.
1 — the signal was asserted.

p = The physical level one layer attached to the device.

----- — the data was not accessible from the controller.
RS232 — interface is being used.
V.36 — interface is being used.
RS449 — interface is being used.
R232E — tn74 emulation mode with a RS232 interface is being used.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered. If any unit of the associated IOP is reserved, however, certain fields will contain information that is not available. For more complete information, try the message again after the unit is released.

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

5. ALARMS

None. This is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 766.
Format 2 has an OMDB key of 783.

Output Appendix
`SYSERR-APP`

Input Messages
`OP:DEVICE;INFO`

ID . . . . . OP-DFC,INFO-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . DKSUTL

1. FORMAT

This message has six formats.

[1] `OP DFC` *a* `INFO NOT STARTED` *b c*

[2] `OP DFC` *a* `INFO STOPPED` *b c*

[3] `OP DFC` *a* `INFO ERROR` *b c*

[4] `OP DFC` *a* `INFO ABORTED` *b*

[5]
```
OP DFC a INFO
MICROCODE VERSION:  d
NO MHD UNITS EQUIPPED
```

[6]
```
OP DFC a INFO
MICROCODE VERSION:  d
UNIT  DID PORT STATUS EQUIPAGE TRCKS VTOC USABLE RSVD ESNTL MATE
MHD i j k l m n o p q r s
.
.
.
```

2. REASON FOR OUTPUT

To report the result of executing an `OP:DFC;INFO` input message.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the disk file controller (DFC).

b = Process step or reason code:

- `f03` — failed to open `/tmp/MHDINFO`*xxxxxx* output file
- `f06` — failed to open equipment configuration database (ECD)
- `f07` — failed to get next unit control block (UCB)
- `f09` — failed to get UCB by name
- `f13` — failed to assign special device file name for moving head disk (MHD)
- `f15` — failed to assign special device file name for DFC
- `f16` — failed to open special device file for MHD
- `f18` — failed to open special device file for DFC
- `f19` — failed to get UCB of DFC
- `f21` — failed to set input/output mode of device file
- `f24` — failed to enable message reception

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`f27` — see accompanying disk driver (DKDRV) error report on the receive-only printer (ROP)
`f28` — see accompanying DKDRV error report on the ROP
`f29` — see accompanying DKDRV error report on the ROP
`f30` — failed to close special device file of unit
`f31` — failed to close special device file of unit
`f32` — failed to close special device file of unit
`f39` — failed to close ECD
`f40` — failed to release special device file of unit
`f41` — failed to release special device file of unit
`f42` — failed to release special device file of unit
`f48` — message reception failure
`f51` — message to port failure
`f54` — message reception failure
`f57` — process timed out
`f60` — failed to release UCB of unit for DFC
`f61` — failed to release UCB of unit
`f62` — failed to release UCB of unit

c = System error code number. See System Error Codes Output Appendix, `SYSERR-APP`.

d = DFC microcode version.

— `NOT AVAILABLE`
— *e.f.g - h*

e = Version of `DFC MICROCODE`.
f = Issue of `DFC MICROCODE`.
g = Point issue of `DFC MICROCODE`.
h = Laboratory Design Issue (LDI) of `DFC MICROCODE`.

i = Unit number.

j = Device ID (drive ID plug number).

k = Physical port.

— The DFC physical port connection number is displayed if the `DFC MICROCODE VERSION` is 3.2.0 or later.
— `NA` (not available) indicates an earlier `DFC MICROCODE VERSION`, or the DFC was unavailable.

`NA` is also output if the unit is reserved.

l = Major status of unit.

m = Equipage (drive type), in megabytes.

160MB
300MB
340MB
675MB

— NA DFC was unavailable.

NA is also output if the unit is reserved.

n = Number of tracks on the disk drive.

Value — decimal number of disk tracks
NA — DFC was unavailable

NA is also output if the unit is reserved.

o = Validity of the VTOC.

VALID — VTOC has a valid VTOC entry
INVALID — could not find a valid VTOC entry
UNRDBLE — read error while trying to read VTOC
NA — could not reserve unit - VTOC not read

p = Usability.

YES
NO — disk data integrity is unknown

q = Unit reserved.

YES — unit is reserved for maintenance activity
NO — unit is not reserved

r = Unit essential.

Value — hexadecimal value of the essential field of the unit's UCB

s = Unit's mate.

Unit — name and number of duplex mate
SMPLX — unit has no mate

4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

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A termination report specifying completion indicates all directives of the input request were done and no failures were encountered. If the unit is reserved, however, certain fields will contain information that is not available. For more complete information, try the command again after the unit is released.

Format 5 is the result of when the DFC or any of its associated units is reserved.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 153.
Format 5 has an OMDB key of 152.
Format 6 has an OMDB key of 150.

Output Appendix
`SYSERR-APP`

Input Messages
`OP:DFC;INFO`
`OP:MHD;INFO`

Output Message
`OP-MHD,INFO`

ID . . . . . OP-DFC,INFO-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has eight formats.

[1] `OP DFC` *a* `INFO NOT STARTED` *b c*

[2] `OP DFC` *a* `INFO STOPPED` *b c*

[3] `OP DFC` *a* `INFO ERROR` *b c*

[4] `OP DFC` *a* `INFO ABORTED` *b*

[5]
```
OP DFC a INFO
FIRMWARE VERSION: d
PUMPCODE VERSION: d
NO MHD UNITS EQUIPPED
```

[6]
```
OP DFC a INFO
FIRMWARE VERSION: d
PUMPCODE VERSION: d

UNIT     DID PORT STATUS TRCKS  VTOC   USABLE RSVD ESNTL  MATE
------ --- ---- ------ ----- ------- ------ ---- ----- ------
MHD e  f  g    h    i    j    k    l  m    n
.
.
.

    **** EQUIPAGE SIZE ****    SIZES         PRODUCT
UNIT      DRIVE     UCB     VTOC   COMPATIBLE  IDENTIFICATION
------ ------- ------- ------- ---------- ----------------
MHD e    o     p    q     r       s
.
.
.
```

[7]
```
OP DFC a INFO
FIRMWARE VERSION: d
PUMPCODE VERSION: d

SBUS t  SCSI HA BUS u   STATUS: h
UNIT    DID PORT STATUS TRCKS  VTOC   USABLE RSVD ESNTL  MATE
------ --- ---- ------ ----- ------- ------ ---- ----- ------
MHD e  f  g   h   i   j   k   l  m   n
.
.
.

   **** EQUIPAGE SIZE ****   SIZES         PRODUCT
UNIT     DRIVE    UCB    VTOC   COMPATIBLE  IDENTIFICATION
------ ------- ------- ------- ---------- ---------------
MHD e   o    p   q    r      s
.
.
.
```

[8]
```
OP DFC a INFO
FIRMWARE VERSION: d
PUMPCODE VERSION: d

SBUS t  SCSI HA BUS u   STATUS: h
UNIT    DID PORT STATUS TRCKS  VTOC   USABLE RSVD ESNTL  MATE
------ --- ---- ------ ----- ------- ------ ---- ----- ------
MHD e  f  g   h   i   j   k   l  m   n
.
.
.

   **** EQUIPAGE SIZE ****   SIZES         PRODUCT
UNIT     DRIVE    UCB    VTOC   COMPATIBLE  IDENTIFICATION
------ ------- ------- ------- ---------- ---------------
MHD e   o    p   q    r      s
.
.
.
```

```
SBUS t  SCSI HA BUS u   STATUS: h
UNIT    DID PORT STATUS TRCKS  VTOC   USABLE RSVD ESNTL  MATE
------ --- ---- ------ ----- ------- ------ ---- ----- ------
MHD e  f  g   h   i   j   k   l  m   n
.
.
.

    **** EQUIPAGE SIZE ****   SIZES         PRODUCT
UNIT      DRIVE    UCB    VTOC   COMPATIBLE  IDENTIFICATION
------ ------- ------- ------- ---------- ----------------
MHD e   o    p   q    r      s
.
.
.
```

2. REASON FOR OUTPUT

To report the result of executing an `OP:DFC;INFO` input message.

Format 5 is output when all of the subunits of the disk file controller (DFC) are unequipped.

Format 6 is used to output data for a SMD DFC.

Format 7 is used to output data for a small computer system interface (SCSI) DFC equipped with only one SCSI bus (SBUS).

Format 8 is used to output data for a SCSI DFC equipped with more than one SBUS.

3. VARIABLE FIELD DEFINITIONS

a = DFC member number.

b = Process step or reason code.

`f01` — failed to enable message reception
`f03` — failed to open ECD
`f06` — failed to get UCB by name
`f09` — failed to get UCB of SBUS
`f0c` — failed to get UCB of DFC
`f0e` — failed to get UCB of DFC
`f11` — failed to assign SDF name for DFC
`f14` — failed to open SDF for DFC
`f17` — see DKDRV report on the ROP
`f1a` — failed to close special device file
`f1c` — failed to release special device file
`f1f` — failed to unreserve DFC UCB
`f23` — failed to get next UCB
`f26` — failed to assign SDF name for MHD
`f29` — failed to open SDF for MHD
`f2c` — failed to set I/O mode of device file

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`f2f` — see DKDRV report on the ROP
`f33` — see DKDRV report on the ROP
`f36` — failed to close MHD SDF
`f37` — failed to release MHD SDF
`f38` — failed to unreserve MHD UCB
`f3e` — message to port failure
`f43` — message reception failure
`f46` — process timed out
`f49` — failed to close special device file
`f4c` — failed to release special device file
`f4f` — failed to unreserve UCB
`f53` — failed to close ECD
`f56` — terminated externally with signal

c = System error code number. See System Error Codes Output Appendix, `SYSERR-APP`.

d = DFC firmware/pumpcode version.

`A.B.C` — `D`

`A` = Version of `DFC FIRMWARE/PUMPCODE`.

`B` = Issue of `DFC FIRMWARE/PUMPCODE`.

`C` = Point issue of `DFC FIRMWARE/PUMPCODE`.

`D` = Laboratory Design Issue (LDI) of `DFC FIRMWARE/PUMPCODE`.

`NAV` — The firmware or pumpcode versions are not available, or cannot be determined.

`NAP` — The pumpcode version is not applicable for SMD DFCs.

e = Unit number.

f = Device ID (drive ID number).

g = Physical port.

The physical port number is where the SMD MHD is connected to the DFC.

data — Physical port number.

`NAV` — The DFC is not available, or the DFC is reserved, or the SMD DFC firmware/pumpcode version is earlier than 3.2.0.

`NAP` — Not applicable for SCSI disks.

h = Major status of unit.

i = Number of tracks on the disk drive.

data — Decimal number of disk tracks.

NAV — DFC is not available, or the unit is reserved.

NAP — Not applicable for SCSI disks.

j = Validity of the volume table of contents (VTOC).

VALID — VTOC has a valid VTOC entry.

INVALID — Could not find a valid VTOC entry.

UNRDBLE — Read error while trying to read VTOC.

NAV — Could not reserve unit - VTOC not read.

k = Usability.

YES — Disk is considered usable.

NO — Disk data integrity is unknown.

l = Unit reserved.

YES — Unit is reserved for maintenance activity.

NO — Unit is not reserved.

m = Unit essential.

data — Hexadecimal value of the essential field of the unit's UCB.

n = Unit's mate.

Unit — Name and unit number of duplex mate.

SMPLX — Unit has no mate.

o = Equipage size based on the physical drive.

For SCSI disks, the physical drive size is determined by reading the capacity of the disk from the disk drive itself. For SMD disks, the physical drive size is determined by reading the equipage value in the UCB record.

160MB — (SMD disk drive)

300MB — (SMD disk drive)

322MB — (SCSI disk drive)

340MB — (SMD disk drive)

600MB — (SCSI disk drive)

1000MB — (SCSI disk drive)

NAV — The DFC is not active, or the SCSI MHD is inaccessible, or the unit is reserved.

p = Equipage size based on the UCB equipage value.

The drive size is determined by reading the equipage value in the UCB record for the unit.

160MB — (SMD disk drive)

300MB — (SMD disk drive)

322MB — (SCSI disk drive)

340MB — (SMD disk drive)

600MB — (SCSI disk drive)

1000MB — (SCSI disk drive)

NAV — The DFC is not active, or the unit is reserved.

q = Equipage size based on the VTOC.

The drive size is derived from the maximum capacity of the unit's VTOC.

160MB — (SMD disk drive)

300MB — (SMD disk drive)

322MB — (SCSI disk drive)

340MB — (SMD disk drive)

600MB — (SCSI disk drive)

1000MB — (SCSI disk drive)

NAV — The DFC is not active, or the unit is reserved, or the unit is inaccessible.

r = Sizes compatible.

YES — DRIVE, UCB, and VTOC equipage sizes are compatible.

NO — DRIVE, UCB, and VTOC equipage sizes are not compatible.

NAV — At least one of the equipage sizes are not available.

Equipage sizes are not compatible if the drive size is not equal to the UCB equipage size or if the drive size is smaller than the VTOC size.

SEE PROPRIETARY NOTICE ON COVER PAGE

Size comparisons are based on the formatted capacity of a disk drive. The formatted capacity of the LUCENT RTR-supported disk drives are as follows:

Drive	Formatted Capacity
160MB	133MB
300MB	253MB
322MB	322MB
340MB	277MB
600MB	604MB
1000MB	1000MB

s = Product identification.

NAP — Not applicable for SMD disks.

NAV — The DFC is not active, or the unit is reserved, or the SCSI MHD is inaccessible.

data — Alphanumeric data representing the product identification of a SCSI disk.

t = SBUS unit number if the DFC is a SCSI device.

Unit Number — Logical unit number of the SCSI bus that is stored in the SBUS's UCB.

u = SCSI HA bus identification number: either 0 or 1.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered. If any unit of the associated DFC is reserved, however, certain fields will contain information that is not available. For more complete information, try the message again after the unit is released.

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

For Formats 6, 7, and 8, if the drive equipage sizes are not compatible, verify the correctness of the UCB equipage value. If there is still an inconsistency, contact the next level of technical assistance.

5. ALARMS

This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys

Formats 1 through 4 have an OMDB key of 153.
Format 5 has an OMDB key of 152.
Format 6 has an OMDB key of 150.
Format 7 has an OMDB key of 570.
Format 8 has an OMDB key of 571.

Output Appendix

SYSERR-APP

Input Messages

OP:DFC;INFO
OP:MHD;INFO

ID . . . . . OP-DFC,INFO-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 thru R21.25
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has eight formats.

[1] `OP DFC` *a* `INFO NOT STARTED` *b c*

[2] `OP DFC` *a* `INFO STOPPED` *b c*

[3] `OP DFC` *a* `INFO ERROR` *b c*

[4] `OP DFC` *a* `INFO ABORTED` *b*

[5]
```
OP DFC a INFO
DFC a  STATUS: i
FIRMWARE VERSION: d
PUMPCODE VERSION: d

NO DEVICES EQUIPPED
```

[6]
```
OP DFC a INFO
DFC a  STATUS: i
FIRMWARE VERSION: d
PUMPCODE VERSION: d

UNIT    DID PORT STATUS TRCKS  VTOC   USABLE RSVD ESNTL  MATE
------ --- ---- ------ ----- ------- ------ ---- ----- ------
 e   g  h   i   j   k   l   m   n   o
.
.
.
    **** EQUIPAGE SIZE ****   SIZES
UNIT     DRIVE    UCB    VTOC   COMPATIBLE
------ ------- ------- ------- ----------
 e    p    q    r    s
.
.
.
```

[7]
```
OP DFC a INFO
DFC a  STATUS: i
FIRMWARE VERSION: d
PUMPCODE VERSION: d

SBUS w  SCSI HA BUS x   STATUS: i

UNIT       DEVICE TYPE     DID STATUS  VTOC   USABLE RSVD ESNTL  MATE
------ ----------------- --- ------ ------- ------ ---- ----- ------
 e      f      g  i    k    l   m    n    o
.
.
.
    **** EQUIPAGE SIZE ****   SIZES
UNIT     DRIVE    UCB    VTOC   COMPATIBLE
------ ------- ------- ------- ----------
 e    p    q    r    s
.
.
.
     PRODUCT       REV
UNIT     IDENTIFICATION  LEVEL    SERIAL NUMBER
------ --------------- ----- ------------------
 e      t      u      v
.
.
.
```

[8]
```
OP DFC a INFO
DFC a  STATUS: i
FIRMWARE VERSION: d
PUMPCODE VERSION: d

SBUS w  SCSI HA BUS x   STATUS: i

UNIT       DEVICE TYPE     DID STATUS  VTOC   USABLE RSVD ESNTL  MATE
------ ----------------- --- ------ ------- ------ ---- ----- ------
 e      f      g  i    k    l   m    n    o
.
.
.
    **** EQUIPAGE SIZE ****   SIZES
UNIT     DRIVE    UCB    VTOC   COMPATIBLE
------ ------- ------- ------- ----------
 e    p    q    r    s
.
.
.
```

```
      PRODUCT        REV
UNIT      IDENTIFICATION  LEVEL     SERIAL NUMBER
------ ---------------- ----- ------------------
 e       t       u       v
.
.
.

SBUS w   SCSI HA BUS x    STATUS: i

UNIT         DEVICE TYPE      DID STATUS  VTOC   USABLE RSVD ESNTL  MATE
------ ------------------ --- ------ ------- ------ ---- ----- ------
 e       f       g  i    k    l   m    n    o
.
.
.
    **** EQUIPAGE SIZE ****    SIZES
UNIT      DRIVE     UCB     VTOC    COMPATIBLE
------ ------- ------- ------- ----------
 e     p     q     r     s
.
.
.
      PRODUCT        REV
UNIT      IDENTIFICATION  LEVEL     SERIAL NUMBER
------ ---------------- ----- ------------------
 e       t       u       v
.
.
.
```

2. REASON FOR OUTPUT

To report the result of executing an `OP:DFC;INFO` input message.

Format 5 is output when all of the subunits of the disk file controller (DFC) are unequipped.

Format 6 is used to output data for a storage module drive (SMD) DFC.

Format 7 is used to output data for a small computer system interface (SCSI) DFC equipped with only one SCSI bus (SBUS).

Format 8 is used to output data for a SCSI DFC equipped with more than one SBUS.

3. VARIABLE FIELD DEFINITIONS

a = DFC member number.

b = Process step or reason code.

f01 — failed to enable message reception
f03 — failed to open ECD
f06 — failed to get UCB by name
f08 — failed to get top UCB
f0a — top UCB is not a DFC
f0c — unknown DFC type
f0e — failed to get UCB of SBUS
f11 — failed to assign special device file name for DFC
f14 — failed to open special device file for DFC
f17 — see DKDRV report on the ROP
f1a — failed to close special device file
f1c — failed to release special device file
f1f — failed to unreserve DFC UCB
f23 — failed to get next UCB
f26 — failed to assign special device file name
f29 — failed to open special device file
f2c — failed to set I/O mode of device file
f2f — device size not recognized
f33 — see DKDRV report on the ROP
f36 — failed to close special device file
f37 — failed to release special device file
f38 — failed to unreserve device UCB
f3e — message to port failure
f43 — message reception failure
f46 — process timed out
f49 — failed to close special device file
f4c — failed to release special device file
f4f — failed to unreserve UCB
f53 — failed to close ECD
f56 — terminated externally with signal

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

d = DFC firmware/pumpcode version.

NAP — The pumpcode version is not applicable for SMD DFCs.

NAV — The firmware or pumpcode versions are not available, or cannot be determined.

A.B.C — D

A = Version of DFC FIRMWARE/PUMPCODE.

B = Issue of DFC FIRMWARE/PUMPCODE.

C = Point issue of DFC FIRMWARE/PUMPCODE.

D = Laboratory Design Issue (LDI) of DFC FIRMWARE/PUMPCODE.

SEE PROPRIETARY NOTICE ON COVER PAGE

e = Unit name and member number.

f = Device type.

g = Device ID (drive ID number).

h = Physical port where the SMD disk drive is connected to the DFC.

NAV — The DFC is not available,
or the DFC is reserved,
or the SMD DFC firmware/pumpcode version is earlier than 3.2.0.

data — Physical port number.

i = Major status of unit.

j = Number of tracks on the SMD disk drive.

NAV — DFC is not available, or the unit is reserved.

data — Decimal number of disk tracks.

k = Validity of the volume table of contents (VTOC).

VALID — VTOC has a valid VTOC entry.

INVALID — Could not find a valid VTOC entry.

UNRDBLE — Read error while trying to read VTOC.

NAV — Could not reserve unit - VTOC not read.

NAP — Not applicable for this device.

l = Usability.

YES — Disk is considered usable.

NO — Disk data integrity is unknown.

NAP — Not applicable for this device.

m = Unit reserved.

YES — Unit is reserved for maintenance activity.

NO — Unit is not reserved.

n = Unit essential.

NAP — Not applicable for this device.

data — Hexadecimal value of the essential field of the unit's UCB.

o = Unit's mate.

NAP — Not applicable for this device.

SMPLX — Unit has no mate.

data — Unit name and member number of duplex mate.

p = Equipage size based on the physical disk drive.

For SCSI disks, the physical drive size is determined by reading the capacity of the disk from the disk drive itself. For SMD disks, the physical drive size is determined by reading the equipage value in the UCB record.

160MB — (SMD disk drive)

300MB — (SMD disk drive)

322MB — (SCSI disk drive)

340MB — (SMD disk drive)

600MB — (SCSI disk drive)

1000MB — (SCSI disk drive)

NAV — The DFC is not active, or the SCSI device is inaccessible, or the unit is reserved.

NAP — Not applicable for this device.

q = Equipage size based on the UCB equipage value.

The disk drive size is determined by reading the equipage value in the UCB record for the unit.

160MB — (SMD disk drive)

300MB — (SMD disk drive)

322MB — (SCSI disk drive)

340MB — (SMD disk drive)

600MB — (SCSI disk drive)

1000MB — (SCSI disk drive)

NAV — The DFC is not active, or the unit is reserved.

NAP — Not applicable for this device.

r = Equipage size based on the VTOC.

The drive size is derived from the maximum capacity of the unit's VTOC.

160MB — (SMD disk drive)

300MB — (SMD disk drive)

322MB — (SCSI disk drive)

340MB — (SMD disk drive)

600MB — (SCSI disk drive)

1000MB — (SCSI disk drive)

SEE PROPRIETARY NOTICE ON COVER PAGE

NAV — The DFC is not active,
or the unit is reserved,
or the unit is inaccessible.

NAP — Not applicable for this device.

s = Sizes compatible.

YES — DRIVE, UCB, and VTOC equipage sizes are compatible.

NO — DRIVE, UCB, and VTOC equipage sizes are not compatible.

NAV — At least one of the equipage sizes are not available.

NAP — Not applicable for this device.

Equipage sizes are not compatible if the drive size is not equal to the UCB equipage size or if the drive size is smaller than the VTOC size.

Size comparisons are based on the formatted capacity of a disk drive. The formatted capacity of the LUCENT RTR-supported disk drives are as follows:

Drive	Formatted Capacity
160MB	133MB
300MB	253MB
322MB	322MB
340MB	277MB
600MB	604MB
1000MB	1000MB

t = Product identification.

NAP — Not applicable for this device.

NAV — The DFC or the SBUS is not active,
or the unit is reserved,
or the SCSI device is inaccessible.

data — Alphanumeric data representing the product identification of a SCSI device.

u = Revision level.

NAV — The DFC or the SBUS is not active,
or the unit is reserved,
or the SCSI device is inaccessible.

data — Alphanumeric data representing the revision level of the firmware in a SCSI device.

v = Serial number.

NAP — Not applicable for this device.

SEE PROPRIETARY NOTICE ON COVER PAGE

NAV — The DFC or the SBUS is not active,
or the unit is reserved,
or the SCSI device is inaccessible.

data — Alphanumeric data representing the serial number of a SCSI device.

w = SBUS unit number if the DFC is a SCSI device.

Unit Number — Logical unit number of the SCSI bus that is stored in the SBUS's UCB.

x = SCSI HA bus identification number: either 0 or 1.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered. If any unit of the associated DFC is reserved, however, certain fields will contain information that is not available. For more complete information, try the message again after the unit is released.

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

For Formats 6, 7, and 8, if the drive equipage sizes are not compatible, verify the correctness of the UCB equipage value. If there is still an inconsistency, contact the next level of technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1 through 4 have an OMDB key of 153.
Format 5 has an OMDB key of 152.
Format 6 has an OMDB key of 150.
Format 7 has an OMDB key of 570.
Format 8 has an OMDB key of 571.

Output Appendix
SYSERR-APP

Input Messages
OP:DFC;INFO
OP:MHD;INFO
OP:MT;INFO

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . OP-DFC,INFO-D
GENERIC . . . . . UNIX RTR R21.27 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has eight formats.

[1] `OP DFC` *a* `INFO NOT STARTED` *b c*

[2] `OP DFC` *a* `INFO STOPPED` *b c*

[3] `OP DFC` *a* `INFO ERROR` *b c*

[4] `OP DFC` *a* `INFO ABORTED` *b*

[5]
```
OP DFC a INFO
DFC a  STATUS: i
FIRMWARE VERSION: d
PUMPCODE VERSION: d

NO DEVICES EQUIPPED
```

[6]
```
OP DFC a INFO
DFC a  STATUS: i
FIRMWARE VERSION: d
PUMPCODE VERSION: d

UNIT    DID PORT STATUS TRCKS  VTOC   USABLE RSVD ESNTL  MATE
------ --- ---- ------ ----- ------- ------ ---- ----- ------
 e   g  h   i   j   k   l   m   n   o
.
.
.
    **** EQUIPAGE SIZE ****   SIZES
UNIT     DRIVE    UCB    VTOC   COMPATIBLE
------ ------- ------- ------- ----------
 e    p    q    r    s
.
.
.
```

[7]
```
OP DFC a INFO
DFC a  STATUS: i
FIRMWARE VERSION: d
PUMPCODE VERSION: d

SBUS w  SCSI HA BUS x   STATUS: i

UNIT       DEVICE TYPE     DID STATUS  VTOC   USABLE RSVD ESNTL  MATE
------ ----------------- --- ------ ------- ------ ---- ----- ------
 e      f      g  i    k    l   m    n    o
.
.
.
    **** EQUIPAGE SIZE ****   SIZES
UNIT     DRIVE    UCB    VTOC   COMPATIBLE
------ ------- ------- ------- ----------
 e    p    q    r    s
.
.
.
     PRODUCT       REV
UNIT     IDENTIFICATION  LEVEL    SERIAL NUMBER
------ --------------- ----- ------------------
 e      t      u      v
.
.
.
```

[8]
```
OP DFC a INFO
DFC a  STATUS: i
FIRMWARE VERSION: d
PUMPCODE VERSION: d

SBUS w  SCSI HA BUS x   STATUS: i

UNIT       DEVICE TYPE     DID STATUS  VTOC   USABLE RSVD ESNTL  MATE
------ ----------------- --- ------ ------- ------ ---- ----- ------
 e      f      g  i    k    l   m    n    o
.
.
.
    **** EQUIPAGE SIZE ****   SIZES
UNIT     DRIVE    UCB    VTOC   COMPATIBLE
------ ------- ------- ------- ----------
 e    p    q    r    s
.
.
.
```

```
     PRODUCT        REV
UNIT     IDENTIFICATION  LEVEL    SERIAL NUMBER
------ --------------- ----- ------------------
 e      t      u      v
.
.
.

SBUS w  SCSI HA BUS x   STATUS: i

UNIT        DEVICE TYPE      DID STATUS  VTOC   USABLE RSVD ESNTL  MATE
------ ----------------- --- ------ ------- ------ ---- ----- ------
 e      f      g  i    k    l   m    n    o
.
.
.
    **** EQUIPAGE SIZE ****   SIZES
UNIT      DRIVE     UCB     VTOC   COMPATIBLE
------ ------- ------- ------- ----------
 e     p     q     r     s
.
.
.
     PRODUCT        REV
UNIT     IDENTIFICATION  LEVEL    SERIAL NUMBER
------ --------------- ----- ------------------
 e      t      u      v
.
.
.
```

2. REASON FOR OUTPUT

To report the result of executing an `OP:DFC;INFO` input message.

Format 5 is output when all of the subunits of the disk file controller (DFC) are unequipped.

Format 6 is used to output data for a storage module drive (SMD) DFC.

Format 7 is used to output data for a small computer system interface (SCSI) DFC equipped with only one SCSI bus (SBUS).

Format 8 is used to output data for a SCSI DFC equipped with more than one SBUS.

3. VARIABLE FIELD DEFINITIONS

a = DFC member number.

b = Process step or reason code.

f01 — failed to enable message reception
f03 — failed to open ECD
f06 — failed to get UCB by name
f08 — failed to get top UCB
f0a — top UCB is not a DFC
f0c — unknown DFC type
f0e — failed to get UCB of SBUS
f11 — failed to assign special device file name for DFC
f14 — failed to open special device file for DFC
f17 — see DKDRV report on the ROP
f1a — failed to close special device file
f1c — failed to release special device file
f1f — failed to unreserve DFC UCB
f23 — failed to get next UCB
f26 — failed to assign special device file name
f29 — failed to open special device file
f2c — failed to set I/O mode of device file
f2f — device size not recognized
f33 — see DKDRV report on the ROP
f36 — failed to close special device file
f37 — failed to release special device file
f38 — failed to unreserve device UCB
f3e — message to port failure
f43 — message reception failure
f46 — process timed out
f49 — failed to close special device file
f4c — failed to release special device file
f4f — failed to unreserve UCB
f53 — failed to close ECD
f56 — terminated externally with signal

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

d = DFC firmware/pumpcode version.

NAP — The pumpcode version is not applicable for SMD DFCs.

NAV — The firmware or pumpcode versions are not available, or cannot be determined.

A.B.C — D

A = Version of DFC FIRMWARE/PUMPCODE.

B = Issue of DFC FIRMWARE/PUMPCODE.

C = Point issue of DFC FIRMWARE/PUMPCODE.

D = Laboratory Design Issue (LDI) of DFC FIRMWARE/PUMPCODE.

SEE PROPRIETARY NOTICE ON COVER PAGE

e = Unit name and member number.

f = Device type.

g = Device ID (drive ID number).

h = Physical port where the SMD disk drive is connected to the DFC.

NAV — The DFC is not available,
or the DFC is reserved,
or the SMD DFC firmware/pumpcode version is earlier than 3.2.0.

data — Physical port number.

i = Major status of unit.

j = Number of tracks on the SMD disk drive.

NAV — DFC is not available, or the unit is reserved.

data — Decimal number of disk tracks.

k = Validity of the volume table of contents (VTOC).

VALID — VTOC has a valid VTOC entry.

INVALID — Could not find a valid VTOC entry.

UNRDBLE — Read error while trying to read VTOC.

NAV — Could not reserve unit - VTOC not read.

NAP — Not applicable for this device.

l = Usability.

YES — Disk is considered usable.

NO — Disk data integrity is unknown.

NAP — Not applicable for this device.

m = Unit reserved.

YES — Unit is reserved for maintenance activity.

NO — Unit is not reserved.

n = Unit essential.

NAP — Not applicable for this device.

data — Hexadecimal value of the essential field of the unit's UCB.

o = Unit's mate.

NAP — Not applicable for this device.

SMPLX — Unit has no mate.

data — Unit name and member number of duplex mate.

p = Equipage size based on the physical disk drive.

SEE PROPRIETARY NOTICE ON COVER PAGE

For SCSI disks, the physical drive size is determined by reading the capacity of the disk from the disk drive itself. For SMD disks, the physical drive size is determined by reading the equipage value in the UCB record.

160MB — (SMD disk drive)

300MB — (SMD disk drive)

322MB — (SCSI disk drive)

340MB — (SMD disk drive)

600MB — (SCSI disk drive)

1000MB — (SCSI disk drive)

2000MB — (SCSI disk drive)

NAV — The DFC is not active, or the SCSI device is inaccessible, or the unit is reserved.

NAP — Not applicable for this device.

q = Equipage size based on the UCB equipage value.

The disk drive size is determined by reading the equipage value in the UCB record for the unit.

160MB — (SMD disk drive)

300MB — (SMD disk drive)

322MB — (SCSI disk drive)

340MB — (SMD disk drive)

600MB — (SCSI disk drive)

1000MB — (SCSI disk drive)

2000MB — (SCSI disk drive)

NAV — The DFC is not active, or the unit is reserved.

NAP — Not applicable for this device.

r = Equipage size based on the VTOC.

The drive size is derived from the maximum capacity of the unit's VTOC.

160MB — (SMD disk drive)

300MB — (SMD disk drive)

322MB — (SCSI disk drive)

340MB — (SMD disk drive)

SEE PROPRIETARY NOTICE ON COVER PAGE

600MB — (SCSI disk drive)

1000MB — (SCSI disk drive)

2000MB — (SCSI disk drive)

NAV — The DFC is not active,
or the unit is reserved,
or the unit is inaccessible.

NAP — Not applicable for this device.

s = Sizes compatible.

YES — DRIVE, UCB, and VTOC equipage sizes are compatible.

NO — DRIVE, UCB, and VTOC equipage sizes are not compatible.

NAV — At least one of the equipage sizes are not available.

NAP — Not applicable for this device.

Equipage sizes are not compatible if the drive size is not equal to the UCB equipage size or if the drive size is smaller than the VTOC size.

Size comparisons are based on the formatted capacity of a disk drive. The formatted capacity of the LUCENT RTR-supported disk drives are as follows:

Drive	Formatted Capacity
160MB	133MB
300MB	253MB
322MB	322MB
340MB	277MB
600MB	604MB
1000MB	1000MB
2000MB	2000MB

t = Product identification.

NAP — Not applicable for this device.

NAV — The DFC or the SBUS is not active,
or the unit is reserved,
or the SCSI device is inaccessible.

data — Alphanumeric data representing the product identification of a SCSI device.

u = Revision level.

NAV — The DFC or the SBUS is not active,
or the unit is reserved,
or the SCSI device is inaccessible.

data — Alphanumeric data representing the revision level of the

firmware in a SCSI device.

v = Serial number.

NAP — Not applicable for this device.

NAV — The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.

data — Alphanumeric data representing the serial number of a SCSI device.

w = SBUS unit number if the DFC is a SCSI device.

Unit Number — Logical unit number of the SCSI bus that is stored in the SBUS's UCB.

x = SCSI HA bus identification number: either 0 or 1.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered. If any unit of the associated DFC is reserved, however, certain fields will contain information that is not available. For more complete information, try the message again after the unit is released.

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

For Formats 6, 7, and 8, if the drive equipage sizes are not compatible, verify the correctness of the UCB equipage value. If there is still an inconsistency, contact the next level of technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys
Formats 1 through 4 have an OMDB key of 153.
Format 5 has an OMDB key of 152.
Format 6 has an OMDB key of 150.
Format 7 has an OMDB key of 570.
Format 8 has an OMDB key of 571.

Output Appendix
`SYSERR-APP`

Input Messages
`OP:DFC;INFO`
`OP:MHD;INFO`
`OP:MT;INFO`

ID . . . . . OP-DFCELOG-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . UTIL

1. FORMAT

This message has 19 formats.

[1] `OP DFCELOG CANNOT OPEN LOGFILE` *a*

[2] `OP DFCELOG CANNOT ATTACH TO ECD`

[3] `OP DFCELOG CANNOT OPEN ECD`

[4] `OP DFCELOG CANNOT GET UCB BY NAME`

[5] `OP DFCELOG CANNOT GET NEXT UCB`

[6] `OP DFCELOG ID PLUG DOES NOT MATCH` *a*

[7] `OP DFCELOG CORRUPTED LOGFILE - MISSING DOLLAR SIGN 1` *a*

[8] `OP DFCELOG CORRUPTED LOGFILE - MISSING DOLLAR SIGN 2` *a*

[9] `OP DFCELOG CORRUPTED LOGFILE - MISSING DOLLAR SIGN 3` *a*

[10] `OP DFCELOG CORRUPTED LOGFILE - MSG SIZE FIELD IS NOT NUMERIC` *a*

[11] `OP DFCELOG CORRUPTED LOGFILE - INVALID MESSAGE SIZE` *a*

[12] `OP DFCELOG CORRUPTED LOGFILE - DATE FIELD IS NOT NUMERIC` *a*

[13] `OP DFCELOG CORRUPTED LOGFILE - TIME FIELD IS NOT NUMERIC` *a*

[14] `OP DFCELOG INVALID DFC NUMBER` *a*

[15] `OP DFCELOG NEW LINE AND TAB IS EXPECTED` *a*

[16] `OP DFCELOG INVALID IDPLUG NUMBER` *a*

[17] `OP DFCELOG STARTED`

[18] `OP DFCELOG IN PROGRESS MHD` *b* `SEGMENT` *c*
d

```
AAAA      -      Data flags.
BBBB      -      Drive table status word 0.
CCCC      -      Drive table status word 1.
```

```
DDDD      -      Id plug number.
EEEE      -      Completion codes.
FFFF      -      Enhanced codes.
GGGG      -      Disk status register.
HHHH      -      Starting cylinder of current job.
IIII      -      Starting head of current job.
JJJJ      -      Starting sector of current job.
KKKK      -      Number of sectors in current job.
LLLL      -      Current cylinder.
MMMM      -      Current head.
NNNN      -      Current sector.
```

[19] `OP DFCELOG COMPLETED`

2. REASON FOR OUTPUT

Formats 2 through 5 report that an equipment configuration database (ECD) database call failed.

Format 6 reports that the moving head disk (MHD) `idplug` does not match with the `idplug` in the ECD records.

Formats 7 through 13 report that the user control string (UCS) portion of the `DFCELOG` entry is corrupted.

Formats 14, 15, and 16 report that the text portion of the `DFCELOG` entry is corrupted.

Formats 17, 18, and 19 report and format the `REPT-DFCE` entries in the disk driver logfile. See `REPT-DFCE` output manual page for the displayed codes.

3. VARIABLE FIELD DEFINITIONS

a = Name of the disk driver logfile.

b = MHD number.

c = Number of the segment being printed.

d = Time stamp.

4. ACTION TO BE TAKEN

If Format 1 is printed, check to see if the logfile exists under `/etc/log`.

The contents of the corrupted logfile must be SAVED on paper and/or tape for later reference. The corrupted logfile should be removed by using the `CLR:FILESYS;FILE` input message, and terminate the spooler output process (SOP) for the logfile.

NOTE: Depending on the severity of the corruption, the message may or may not continue processing.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Keys
Formats 1 through 17 and 19 have an OMDB key of 562.
Format 18 has an OMDB key of 563.

Input Message
```
OP:DFCELOG
```

Output Message
```
REPT-DFCE
```

ID . . . . . OP-DFCELOG-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . UTIL

1. FORMAT

This message has 22 formats.

[1] `OP DFCELOG CANNOT OPEN LOGFILE` *a*

[2] `OP DFCELOG CANNOT ATTACH TO ECD`

[3] `OP DFCELOG CANNOT OPEN ECD`

[4] `OP DFCELOG CANNOT GET UCB BY NAME`

[5] `OP DFCELOG CANNOT GET NEXT UCB`

[6] `OP DFCELOG CANNOT GET SBUS UCB`

[7] `OP DFCELOG ID PLUG DOES NOT MATCH` *a*

[8] `OP DFCELOG ID SWITCH DOES NOT MATCH` *a*

[9] `OP DFCELOG CORRUPTED LOGFILE - MISSING DOLLAR SIGN 1` *a*

[10] `OP DFCELOG CORRUPTED LOGFILE - MISSING DOLLAR SIGN 2` *a*

[11] `OP DFCELOG CORRUPTED LOGFILE - MISSING DOLLAR SIGN 3` *a*

[12] `OP DFCELOG CORRUPTED LOGFILE - MSG SIZE FIELD IS NOT NUMERIC` *a*

[13] `OP DFCELOG CORRUPTED LOGFILE - INVALID MESSAGE SIZE` *a*

[14] `OP DFCELOG CORRUPTED LOGFILE - DATE FIELD IS NOT NUMERIC` *a*

[15] `OP DFCELOG CORRUPTED LOGFILE - TIME FIELD IS NOT NUMERIC` *a*

[16] `OP DFCELOG INVALID DFC NUMBER` *a*

[17] `OP DFCELOG NEW LINE AND TAB IS EXPECTED` *a*

[18] `OP DFCELOG INVALID ID PLUG NUMBER` *a*

[19] `OP DFCELOG INVALID ID SWITCH NUMBER` *a*

[20] `OP DFCELOG STARTED`

SEE PROPRIETARY NOTICE ON COVER PAGE

[21] OP DFCELOG IN PROGRESS MHD *b* SEGMENT *c*
d

For storage module drive (SMD) disk file controller (DFC) report:

AAAA	-	Data flags.
BBBB	-	Drive table status word 0.
CCCC	-	Drive table status word 1.
DDDD	-	Id plug number.
EEEE	-	Completion codes.
FFFF	-	Enhanced codes.
GGGG	-	Disk status register.
HHHH	-	Starting cylinder of current job.
IIII	-	Starting head of current job.
JJJJ	-	Starting sector of current job.
KKKK	-	Number of sectors in current job.
LLLL	-	Current cylinder.
MMMM	-	Current head.
NNNN	-	Current sector.

For small computer system interface (SCSI) DFC report:

AAAAAAAA	-	Command completion word
BBBBBBBB	-	MHD status word
C.CC.CC - CCCC	-	Firmware version
D.DD.DD - DDDD	-	Pumpcode version
EEEE	-	Enhanced completion code
FF	-	SCSI job block status byte
GG	-	Firmware/Driver communication register
HHHHHHHH	-	Host adapter status register
IIIIIIII	-	BIC status register
JJJJJJJJ	-	Routine exerciser failure block number
KKKKKKKK	-	Failed command word 1
KKKKKKKK	-	Failed command word 2
KKKKKKKK	-	Failed command word 3
KKKKKKKK	-	Failed command word 4
LLLLLLLL	-	Extended sense data 1
LLLLLLLL	-	Extended sense data 2
LLLLLLLL	-	Extended sense data 3
LLLLLLLL	-	Extended sense data 4

[22] OP DFCELOG COMPLETED

2. REASON FOR OUTPUT

Formats 2 through 6 report that an equipment configuration database (ECD) database call failed.

Format 7 reports that the SMD moving head disk (MHD) id plug number does not match with the id plug number in the ECD records.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 8 reports that the SCSI MHD id switch number does not match with the id switch number in the ECD records.

Formats 9 through 15 report that the user control string (UCS) portion of the DFCELOG entry is corrupted.

Formats 16 through 19 report that the text portion of the DFCELOG entry is corrupted.

Formats 20, 21, and 22 report and format the enhanced information report (EIR) entries in the disk driver logfile.
See REPT-DFCE and REPT-DFCI output messages for the displayed codes.

3. VARIABLE FIELD DEFINITIONS

a = Name of the disk driver logfile.

b = MHD number.

c = Number of the segment being generated.

d = Time stamp.

For SCSI DFC report:

A — Command completion word. aabbcdee

- a — Completion code. See output DFC Appendix B, DFC-APPB, Tables 1 and 2.
- b — Number of blocks read on short failure of read command.
- c — Device ID number.
- d — Autonomous completion code. See output DFC Appendix B, DFC-APPB, Table 3.
- e — Job ID number.

C — Firmware version.

a.bb.cc — ddef
- a — Version of DFC firmware.
- b — Issue of DFC firmware.
- c — Point issue of DFC firmware.
- def — Laboratory design issue (LDI).

D — Pumpcode version.

a.bb.cc — ddef
- a — Version of DFC pumpcode.
- b — Issue of DFC pumpcode.
- c — Point issue of DFC pumpcode.
- def — LDI.

If the SCSI DFC is running without pumpcode, the pumpcode version has the following format:

FFFFFFFF

4. ACTION TO BE TAKEN

If Format 1 is printed, check to see if the logfile exists under `/etc/log`.

The contents of the corrupted logfile must be SAVED on paper and/or tape for later reference. The corrupted logfile should be removed by using the `CLR:FILESYS;FILE` input message, and terminate the spooler output process (SOP) for the logfile.

NOTE: Depending on the severity of the corruption, the message may or may not continue processing.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

Output Appendix
`DFC-APPB`

Input Message
`OP:DFCELOG`

Output Messages
`REPT-DFCE`
`REPT-DFCI`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . OP-DFCELOG-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . UTIL

1. FORMAT

This message has 22 formats.

[1] `OP DFCELOG CANNOT OPEN LOGFILE` *a*

[2] `OP DFCELOG CANNOT ATTACH TO ECD`

[3] `OP DFCELOG CANNOT OPEN ECD`

[4] `OP DFCELOG CANNOT GET UCB BY NAME`

[5] `OP DFCELOG CANNOT GET NEXT UCB`

[6] `OP DFCELOG CANNOT GET SBUS UCB`

[7] `OP DFCELOG ID PLUG DOES NOT MATCH` *a*

[8] `OP DFCELOG ID SWITCH DOES NOT MATCH` *a*

[9] `OP DFCELOG CORRUPTED LOGFILE - MISSING DOLLAR SIGN 1` *a*

[10] `OP DFCELOG CORRUPTED LOGFILE - MISSING DOLLAR SIGN 2` *a*

[11] `OP DFCELOG CORRUPTED LOGFILE - MISSING DOLLAR SIGN 3` *a*

[12] `OP DFCELOG CORRUPTED LOGFILE - MSG SIZE FIELD IS NOT NUMERIC` *a*

[13] `OP DFCELOG CORRUPTED LOGFILE - INVALID MESSAGE SIZE` *a*

[14] `OP DFCELOG CORRUPTED LOGFILE - DATE FIELD IS NOT NUMERIC` *a*

[15] `OP DFCELOG CORRUPTED LOGFILE - TIME FIELD IS NOT NUMERIC` *a*

[16] `OP DFCELOG INVALID DFC NUMBER` *a*

[17] `OP DFCELOG NEW LINE AND TAB IS EXPECTED` *a*

[18] `OP DFCELOG INVALID ID PLUG NUMBER` *a*

[19] `OP DFCELOG INVALID ID SWITCH NUMBER` *a*

[20] `OP DFCELOG STARTED`

[21] OP DFCELOG IN PROGRESS {MHD | MT} *b* SEGMENT *c*
d

For storage module drive (SMD) disk file controller (DFC) report:

AAAA	-	Data flags.
BBBB	-	Drive table status word 0.
CCCC	-	Drive table status word 1.
DDDD	-	Id plug number.
EEEE	-	Completion codes.
FFFF	-	Enhanced codes.
GGGG	-	Disk status register.
HHHH	-	Starting cylinder of current job.
IIII	-	Starting head of current job.
JJJJ	-	Starting sector of current job.
KKKK	-	Number of sectors in current job.
LLLL	-	Current cylinder.
MMMM	-	Current head.
NNNN	-	Current sector.

For small computer system interface (SCSI) DFC report:

AAAAAAAA	-	Command completion word
BBBBBBBB	-	Device status word
C.CC.CC - CCCC	-	Firmware version
D.DD.DD - DDDD	-	Pumpcode version
EEEE	-	Enhanced completion code
FF	-	SCSI job block status byte
GG	-	Firmware/Driver communication register
HHHHHHHH	-	Host adapter status register
IIIIIIII	-	BIC status register
JJJJJJJJ	-	Routine exerciser failure block number
KKKKKKKK	-	Failed command word 1
KKKKKKKK	-	Failed command word 2
KKKKKKKK	-	Failed command word 3
KKKKKKKK	-	Failed command word 4
LLLLLLLL	-	Extended sense data 1
LLLLLLLL	-	Extended sense data 2
LLLLLLLL	-	Extended sense data 3
LLLLLLLL	-	Extended sense data 4

[22] OP DFCELOG COMPLETED

2. REASON FOR OUTPUT

Formats 2 through 6 report that an equipment configuration database (ECD) call failed.

Format 7 reports that the SMD moving head disk (MHD) ID plug number does not match the ID plug number in the ECD records.

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Format 8 reports that the ID switch number on the SCSI device does not match the ID switch number in the ECD records.

Formats 9 through 15 report that the user control string (UCS) portion of the DFCELOG entry is corrupted.

Formats 16 through 19 report that the text portion of the DFCELOG entry is corrupted.

Formats 20, 21, and 22 report and format the enhanced information report (EIR) entries in the disk driver logfile.
See REPT-DFCE and REPT-DFCI output messages for the displayed codes.

3. VARIABLE FIELD DEFINITIONS

a = Name of the disk driver logfile.

b = MHD or SCSI MT member number.

c = Number of the segment being generated.

d = Time stamp.

For SCSI DFC report:

A — Command completion word.
aabbcdee

a — Completion code. See output DFC Appendix B, DFC-APPB, Tables 1 and 2.
b — Number of blocks read on short failure of read command.
c — Device ID number.
d — Autonomous completion code. See output DFC Appendix B, DFC-APPB, Table 3.
e — Job ID number.

C — Firmware version.

a.bb.cc — ddef
a — Version of DFC firmware.
b — Issue of DFC firmware.
c — Point issue of DFC firmware.
def — Laboratory design issue (LDI).

D — Pumpcode version.

a.bb.cc — ddef
a — Version of DFC pumpcode.
b — Issue of DFC pumpcode.
c — Point issue of DFC pumpcode.
def — LDI.

If the SCSI DFC is running without pumpcode, the pumpcode version has the following format:

FFFFFFFF

4. ACTION TO BE TAKEN

If Format 1 is printed, check to see if the logfile exists under `/etc/log`.

The contents of the corrupted logfile must be SAVED on paper and/or tape for later reference. The corrupted logfile should be removed by using the `CLR:FILESYS;FILE` input message, and terminate the spooler output process (SOP) for the logfile.

NOTE: Depending on the severity of the corruption, the message may or may not continue processing.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

Output Appendix
`DFC-APPB`

Input Message
`OP:DFCELOG`

Output Messages
`REPT-DFCE`
`REPT-DFCI`

ID . . . . . OP-DMQ
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
OP DMQ

REQUEST ACTIVE
  [DIAGNOSTIC EXECUTION SUSPENDED DURING RECOVERY]
a    b c  d
SOURCE = e     PRIORITY = f
STATUS = g

REQUEST WAITING

a    b c  d
SOURCE = e     PRIORITY = f
STATUS = g

 INHIBIT SOURCES

   h

OP DMQ COMPLETED
```

2. REASON FOR OUTPUT

To report the status of the maintenance input request administrator (MIRA) request queue in response to the OP:DMQ input message.

If the statement DIAGNOSTIC EXECUTION SUSPENDED DURING RECOVERY appears under REQUEST ACTING, a previous initialization has suspended all diagnostic requests. See the ALW:DMQ input message.

For additional, application-specific information about format or field values, refer to appropriate, application-specific documentation.

3. VARIABLE FIELD DEFINITIONS

a = Task number assigned to the request by MIRA. This is the TASK number used in the STOP:DMQ or STP:DMQ input message.

b = Request type: DGN, DMQ, RST, or RMV.

c = Requested unit; for example, CU 0 CC 0.

d = Request parameters.

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The request parameters indicate the beginning and ending phase numbers requested. If no phase numbers were specified in the input message, beginning phase (BPH) is shown as 1 and ending phase (EPH) is shown as 100.

e = Request source

ADP — Automatic diagnostic process
MAN — Manual
PSM — Power switch monitor
REX — Routine exerciser
ARR — Automatic ring recovery

f = Request priority.

g = Request status

ABORTING
ACTIVE
EMPTY
WAITING

h = Source identification of the inhibited requests.

4. ACTION TO BE TAKEN

Issue the STOP:DMQ or STP:DMQ input message to remove any unwanted requests from the queue. Issue the appropriate maintenance request command (DGN, DMQ, RMV, RST) to add a desired request to the queue.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
This message has OMDB keys of 91, 171, 172, and 173.

Input Messages
ALW:DMQ
INH:DMQ
OP:DMQ
STOP:DMQ
STP:DMQ

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . OP-EMERSTAT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3. R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . SIM

1. FORMAT

This message has four formats.

[1]
```
OP EMERSTAT COMPLETED
EMERGENCY DUMP PARTITION IS EMPTY
```

[2]
```
OP EMERSTAT COMPLETED
EMERGENCY DUMP PARTITION IS FULL
TIME OF EMERGENCY DUMP: a b c d e
BOOT DEVICE LOADED = f
g BYTES OF MAIN MEMORY WERE DUMPED
FROM THE FOLLOWING SEGMENTS:
  ADDRESS      LENGTH
 X'hhhhhhhh X'iiiiiii
```

[3]
```
OP EMERSTAT COMPLETED
{FOPEN|FREAD|FSEEK|REWIND} OF PANIC DUMP PARTITION FAILED: ERRNO = j
```

[4]
```
OP EMERSTAT COMPLETED
PDMPFULL FLAG IN LOW CORE IS NOT SET
TIME OF LAST DUMP: k
```

2. REASON FOR OUTPUT

To report the status of the emergency dump partition in response to an `OP:EMERSTAT` input message.

3. VARIABLE FIELD DEFINITIONS

a = Day of the week.

b = Month of the year.

c = Day of the month.

d = Time of day.

e = Year.

f = Unit number of the disk the dump was written on.

`0` — MHD 0.

`1` — MHD 1.

NOTE: If a disk restoral has been performed, the data reside on both disks.

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g = Total number of bytes written into the emergency dump partition on MHD *f*.

h = For each segment, bits 30 and 31 represent status information, and the remaining bits represent the physical address.

If set, bit 30 indicates that all data was dumped; bit 31 indicates the segment was accessed.

i = Number of bytes written from address *h*.

j = Error number.

k = ASCII string indicating time and date when last panic dump occurred.

4. ACTION TO BE TAKEN

For Formats 1 and 3, no action is required.

For Format 2, use the `COPY:TAPE;EMERDMP` input message to copy the data to magnetic tape, and the `CLR:EMERDMP` input message to clear the emergency dump partition status flag. Send the tape and this printout to a technical assistance center for analysis.

For Format 4, use the `COPY:TAPE;EMERDUMP` input message to copy the data to magnetic tape. Send the tape and this output message to a technical assistance center for analysis.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 445.
Format 2 has an OMDB key of 444.
Format 3 has an OMDB key of 593.
Format 4 has an OMDB key of 594.

Input Messages

```
CLR:EMERDMP
COPY:T;EMERDMP
OP:EMERSTAT
```

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . OP-ERRCHK-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1]
```
OP ERRCHK MESSAGE STARTED
a
b
c
d
e
```

[2]
```
OP ERRCHK IN PROGRESS
  SUMMARY OF INHIBITED UNITS
    f   g   h   i
OP ERRCHK COMPLETED
```

[3]
```
OP ERRCHK ABORTED  f
```

[4]
```
OP ERRCHK NOT STARTED
INVALID ID FIELD
```

2. REASON FOR OUTPUT

To indicate the inhibit status of all computer error conditions that may be optionally inhibited or allowed. There are currently four error conditions of this type: 1) hardware checks identified by HDWCHK, 2) software checks identified by SFTCHK, 3) error interrupts identified by ERRINT, and 4) control unit (CU) pseudo-nodes identified by ERRSRC. The report lists each error condition and its associated inhibit state. In the case of inhibited error interrupts, a supplemental report is output which then lists all units that are inhibited. Information specific to each device is output in a format consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful ABORTED message.

3. VARIABLE FIELD DEFINITIONS

a = This field indicates the existence or non-existence of computer error sources. This field will contain ACTIVE INHIBITS if any error source inhibits are active. Otherwise, it will contain NO INHIBITS.

b = HDWCHK if the computer hardware checks are inhibited.

c = SFTCHK if the computer software checks are inhibited.

d = ERRSRC if the computer CU pseudo-nodes are inhibited.

SEE PROPRIETARY NOTICE ON COVER PAGE

e = ERRINT if the computer error interrupts are inhibited.

f = Unit name. This name may indicate the complex name in a two-level identification, such as CU, may indicate a specific hardware unit, such as teletypewriter (TTY).

g = Unit number that specifically identifies a complex type or hardware unit.

h = Indicates a subunit name that must always be identified with a two-level name, such as CU O MASC O.

i = Subunit number that specifically identifies a unit described by a two-level name.

j = One of the following error codes.

- 50 — A message could not be sent to a driver or real time status report (RTS).
- 51 — An equipment configuration database (ECD) access function completed unsuccessfully.
- 52 — An error in message communication.
- 53 — An error internal to the inhibit administrator.
- 54 — Temporary output file could not be opened.
- 55 — An invalid system port was specified.
- 56 — No process is attached to the specified port.

4. ACTION TO BE TAKEN

All error codes associated with this activity are significant. Seek technical assistance.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 412.
Format 2 has an OMDB key of 413.
Format 3 has an OMDB key of 414.

Input Messages
ALW:ERRCHK
INH:ERRCHK
OP:ERRCHK

Output Messages
ALW-ERRCHK
INH-ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . OP-ERRCHK-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `OP ERRCHK MESSAGE STARTED`
a
[*b*]
[*c*]
[*d*]
[*e*]
[*f*]
[*g*]

[2] `OP ERRCHK MESSAGE IN PROGRESS`
`SUMMARY OF INHIBITED UNITS`
h i j k
`OP ERRCHK COMPLETED`

[3] `OP ERRCHK ABORTED` *l*

[4] `OP ERRCHK NOT STARTED`
`INVALID ID FIELD`

2. REASON FOR OUTPUT

To indicate the inhibit status of all computer error conditions that may be optionally inhibited or allowed. The error conditions of this type are: 1) hardware checks identified by HDWCHK, 2) software checks identified by SFTCHK, 3) error interrupts identified by ERRINT, 4) control unit (CU) pseudo-nodes identified by ERRSRC, 5) emergency action interface (EAI) error interrupts from CU 0 identified by EAIINT CU 0, and 6) EAI error interrupts from CU 1 identified by EAIINT CU 1.

NOTE: The 3B20D computer CUs do not have EAI error interrupts.

The report lists each error condition and its associated inhibit state. In the case of inhibited error interrupts (ERRINT), a supplemental report is output which then lists all units that are inhibited. Information specific to each device is output in a format consistent with related maintenance messages.

The exit status of this report is indicated by either the successful `COMPLETED` message or the unsuccessful `ABORTED` message.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

a = This field indicates the existence or non-existence of error source inhibits. This field contains ACTIVE INHIBITS if any error source inhibits are active. Otherwise, it contains NO INHIBITS.

b = HDWCHK if the hardware checks are inhibited.

c = SFTCHK if the software checks are inhibited.

d = ERRSRC if the CU pseudo- nodes are inhibited.

e = ERRINT if the error interrupts are inhibited.

f = EAIINT CU 0 if the EAI error interrupts are inhibited on CU 0.

g = EAIINT CU 1 if the EAI error interrupts are inhibited on CU 1.

h = Unit name. This name may indicate the complex name in a two-level identification, such as CU, or can simply indicate a specific hardware unit, such as teletypewriter (TTY).

i = Unit number that specifically identifies a complex type or hardware unit.

j = Indicates a subunit name that must always be identified with a two-level name, such as CU O MASC O.

k = Subunit number that specifically identifies a unit described by a two-level name.

l = One of the following error codes:

`50` — message could not be sent to a driver or real time status report (RTS)
`51` — equipment configuration database (ECD) access function completed unsuccessfully
`52` — error in message communication
`53` — error internal to the inhibit administrator
`54` — Temporary output file could not be opened
`55` — invalid system port was specified
`56` — no process is attached to the specified port

4. ACTION TO BE TAKEN

All error codes associated with this activity are significant. Seek technical assistance.

5. ALARMS

For formats 1 and 2, none. This report is automatically generated. Action may or may not be required.

For format 3, none. This automatically-generated report is for information only.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 412.
Format 2 has an OMDB key of 413.
Format 3 has an OMDB key of 414.

Input Messages
```
ALW:ERRCHK
INH:ERRCHK
OP:ERRCHK
```

Output Messages
```
ALW-ERRCHK
INH-ERRCHK
```

ID . . . . . OP-FNAME-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `OP FNAME` *a*

b `NAME`

c d

[2] `OP FNAME NOT STARTED`
`RETRY LATER` *e*

2. REASON FOR OUTPUT

To print the full pathnames of files containing given block or i-node numbers.

3. VARIABLE FIELD DEFINITIONS

a = Output message status.

`COMPLETED` — Last or only segment of message.
`IN PROGRESS` — Intermediate segment(s) of message.
`STARTED` — First segment of message.

b = Search type:

`BLOCK` — The check for matches was made on block numbers.
`INODE` — The check for matches was made on i-nodes.

c = Inode or first block number on which the match occurred.

d = Full path name on which the match occurred.

e = Explanation of error. See OP-FNAME Output Appendix, `OP-FNAME-APP`.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This alarm is either a manually-requested report or is an automatically-generated report for information only.

6. REFERENCES

OMDB Key
Format 1 has an OMDB key of 442.

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Appendix
OP-FNAME-APP

Input Message
OP:FNAME

Output Messages
AUD-FSBLK
AUD-FSLINK

Practice 254-341-120 *Interface and Integrity Facility DMERT/UNIX® RTR Operating System Lucent Technologies 3B20D Computer*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . OP-FNAME-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has five formats.

[1] `OP FNAME` *a*
b `NAME`
c d

[2] `OP FNAME ABORTED CANNOT OPEN OUTPUT FILE` *e*

[3] `OP FNAME ABORTED CANNOT WRITE OUTPUT FILE` *e*

[4] `OP FNAME ABORTED CANNOT CREATE TEMPORARY FILE`

[5] `OP FNAME NOT STARTED`
`RETRY LATER` *f*

2. REASON FOR OUTPUT

Format 1 prints the full path names of files.

Format 2 reports an error when trying to create a temporary output file.

Format 3 reports an error when writing to a temporary output file.

Format 4 reports an error when unable to create a uniquely-named, temporary file.

Format 5 reports an aborted `OP:FNAME` command with an explanation.

3. VARIABLE FIELD DEFINITIONS

a = Output message status.

`STARTED` — First segment of message.
`IN PROGRESS` — Intermediate segment(s) of message.
`COMPLETED` — Last or only segment of message.

b = Search type.

`INODE` — The check for matches was made on i-nodes.
`BLOCK` — The check for matches was made on block numbers.

c = Inode or first block number on which the match occurred.

d = Full path name on which the match occurred.

SEE PROPRIETARY NOTICE ON COVER PAGE

e = Name of temporary file.

f = Explanation of error. See OP-FNAME Output Appendix, `OP-FNAME-APP`.

4. ACTION TO BE TAKEN

If Format 1 prints, no action is needed.

Format 2 indicates all of the inodes of the `tmp` file system are being used. Clean up unused files in the `tmp` file system using input message `CLR:FILESYS;FILE`.

Format 3 indicates all `tmp` file system space has been used. Clean up unused files in the `tmp` file system using input message `CLR:FILESYS;FILE`.

Format 4 indicates system resources do not permit the running of this command at this time; try again later. If the command continues to fail, seek technical assistance.

If Format 5 prints, action is dependent upon the error given.

5. ALARMS

None. This alarm is either a manually-requested report or an automatically-generated report for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 442.
Format 2 has an OMDB key of 438.
Format 3 has an OMDB key of 628.
Format 4 has an OMDB key of 667.

Output Appendix
`OP-FNAME-APP`

Input Messages
`OP:FNAME`
`CLR:F;FILE`

Output Messages
`AUD-FSBLK`
`AUD-FSLINK`

SEE PROPRIETARY NOTICE ON COVER PAGE

Practice 254-341-120 *Interface and Integrity Facility DMERT/UNIX® RTR Operating System Lucent Technologies 3B20D Computer*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . OP-G,READLOG
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has 15 formats.

[1] `OP GEN READLOG  COMPLETED`

[2] `OP GEN READLOG  STOPPED WITH ERROR CODE` *a*

[3]
```
OP GEN READLOG
FIRST ENTRIES: b
```

[4]
```
OP GEN READLOG
BEGIN {PROCEED|COMMIT|BACKOUT|RESTORE}
METHOD: {BKPRT|OFLDISK}
EXECUTION: {CONDITIONAL|UNCONDITIONAL}
PID: c
d
```

[5]
```
OP GEN READLOG
BEGIN ENTER
METHOD: {BKPRT|OFLDISK}
EXECUTION: {CONDITIONAL|UNCONDITIONAL}
INPUT FILE: e
DESTINATIONS: f
DFC NUMBER: [0|1]
SEQUENCE OPTIONS: g
ECD: h
ECD PARTITION: i
OLD LOG: j
OLD LOG PARTITION: k
NEW LOG: l
NEW LOG PARTITION: m
PID: c
d
```

[6]
```
OP GEN READLOG
DISK {ENTER|COMMIT|RESTORE}
VTOC: f
PID: c
DISK PAIR: n
d
```

SEE PROPRIETARY NOTICE ON COVER PAGE

[7] `OP GEN READLOG`
`DISK {ENTER|COMMIT|RESTORE}`
`NEW GENERIC: MHD` *o*
`OLD GENERIC: MHD` *p*
`PID:` *c*
`DISK PAIR:` *n*
d

[8] `OP GEN READLOG`
`WRITE ENTER`
`PARTITION:` *q*
`BACKUP PARTITION:` *r*
`PID:` *c*
d

[9] `OP GEN READLOG`
`TAPE ENTER`
`SEQUENCE NUMBER:` *s*
`SG ID:` *t*
`GENERIC-VERSION:` *u*
`SEQUENCE: {FIRST|SECOND}`
`PID:` *c*
d

[10] `OP GEN READLOG`
`APPLHOOK {ENTER|PROCEED|COMMIT|BACKOUT|RESTORE}`
`PID:` *c*
d

[11] `OP GEN READLOG`
`UPDATE ENTER`
`PID:` *c*
`BACKUP PARTITION UPDATED:` *v*
d

[12] `OP GEN READLOG`
`CONTINUE {ENTER|PROCEED|COMMIT|BACKOUT|RESTORE}`
`PID:` *c*
d

SEE PROPRIETARY NOTICE ON COVER PAGE

[13]
```
OP GEN READLOG
END {ENTER|PROCEED|COMMIT|BACKOUT|RESTORE}
FILE SYSTEM: {PRIMARY|BACKUP}
BOOT FILE: {APPDMERT|DMERT}
BOOT DISK: MHD {0|1}
COMPLETION: {SUCCESS|FAILURE}
ERROR CODE: x
UNIX® ERROR NUMBER: w
CONTINUABLE: {YES|NO}
PID: c
d
```

[14]
```
OP GEN READLOG
NOT STARTED
INVALID ID FEILD ERROR IN IDENTIFICATION FIELD
```

[15]
```
OP GEN READLOG
NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS PROCESS NOT INITIATED
```

NOTE: Two of these formats may appear in succession with `OP GEN READLOG` printed only once.

2. REASON FOR OUTPUT

To print the contents of the system update event log.

Format 1 indicates that output of the system update event log has been completed.

Format 2 indicates that output of the system update event log has been stopped due to error. The error is identified.

Format 3 displays the `FIRST` log entry, including the number of entries in the log.

Format 4 displays a `BEGIN` log entry indicating that an identified system update process began the update method in use, the mode of execution and the process ID (PID) of the update process, and the date and time that the entry was made.

Format 5 displays a `BEGIN` log entry for an `ENTER` process, which includes all the information in Format 4 as well as the pathname of the input file (normally a magnetic-tape device), the pathname of each volume table of contents (VTOC) on each disk pair being updated, the unit number of the disk file controller (DFC) for each new-generic disk (if one was specified), and the tape sequence options used to update the specified disks. Also included is the pathname of the equipment configuration database (ECD) which will be accessed in the new generic, the partition in which this ECD will reside, the pathname of the system update log in the new generic, and the partition in which this log will reside. Also included is the PID of the update process, and the date and time of the log entry.

Format 6 displays a `DISK` entry for the backup partition (BKPRT) update method indicating the type of update process that began updating a disk pair, the name of the VTOC on this disk pair, the PID of the update process, and the date and time that the entry was made.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 7 displays a disconnect (DISK) entry for the off-line disk (OFLDISK) update method indicating the type of process that began updating a disk, the disk that was to contain (or contained) the new generic, and its mate, the disk that contained the old generic. Also included is the PID of the update process, and the date and time of the log entry.

Format 8 displays a `WRITE` entry indicating that an ENTER process began to update a partition, which partition was being updated, and its backup partition (if one exists). Also, the PID of the update process and the date and time of the log entry are included.

Format 9 displays a `TAPE` entry indicating that an `ENTER` process was ready to read a tape, the sequence number of the tape expected, the system generation (SG)-database ID (time stamp) expected from the tape, the generic-version number expected from the tape, and an indication of whether the tape is in the first or second sequence for the disk-pair. Also included is the process ID of the update process, and the date and time of the log entry.

Format 10 displays an `APPLHOOK` entry indicating the type of update process that initiated application-dependent processing, the PID of the update process, and the date and time of the log entry.

Format 11 displays an `UPDATE` entry indicating that the `ENTER` process is updating the backup partitions, the PID of the update process, the backup partition number being updated, and the date and time of the log entry.

Format 12 displays a `CONTINUE` entry indicating the type of update process that restarted execution, the PID of the update process, and the date and time of the log entry.

Format 13 displays an `END` entry indicating that the execution of an update process ended (and the process type), whether the system was booted on primary or backup root, `appdmert` or `dmert` (the latter is `MIN_CONFIG` on the EAI), and for the off-line disk method the boot disk (moving head disk [MHD] 0 or 1). Also included are whether the process completed successfully or failed, the error code, an error number set by a UNIX® system call or DMERT interface function, the PID of the update process, and the date and time of the log entry.

Formats 14 and 15 indicate that an error was made when entering the input message.

NOTE: The log is normally emptied when a `COMMIT` or `RESTORE` process succeeds.

3. VARIABLE FIELD DEFINITIONS

a = Error code for failing process, or the reason the process stopped; 0 implies success. The error code is output at the time the process is run. See the System Error Codes Appendix, `SYSERR-APP`.

b = Number of event entries in the system update log.

c = Process ID associated with the log entry.

d = Date stamp; indicates when the log entry was made.

e = Pathname of the input file, as specified in the `UPD:GEN;ENTER` input message.

f = Destination VTOC pathname(s) for subsequent write entries.

g = Sequence options used for the specified destinations.

h = Pathname of the ECD to be accessed in the new generic.

i = Partition number of the partition in which the ECD will reside.

j = Pathname of the system update log in the old generic.

k = Partition number of the partition in which the system update log of the old generic resided.

l = Pathname of the system update log in the new generic.

m = Partition number of the partition in which the system update log will reside.

n = Number, in order of updating, of the disk pair being updated.

o = Member number of the disk containing the new generic; associated with subsequent write entries (off-line disk method only).

p = Member number of the duplexed disk containing the old generic; mate for MHD *a* (off-line disk method only).

q = Partition number of the partition written.

r = Partition number of the partition paired with *a*, if one exists; 0 implies that no backup to *a* exists.

s = Sequence number of the tape.

t = SG database unique ID (time stamp).

u = Generic and version number of the new generic.

v = Backup partition number being updated.

w = Error number set by a failed UNIX® system call or DMERT interface function (which usually results in process failure); 0 implies success of all system calls (some DMERT functions set this number to non-zero values even on success).

x = Internal error code generated by a system update process. See the System Update Error Codes Appendix, `SUPR-APP`.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This alarm is a manually-requested report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Key
Format 1 has an OMDB key of 326.

Input Appendix
```
SYSERR-APP
SUPR-APP
```

Input Messages
```
OP:G;READLOG
UPD:G;BACKOUT
UPD:G;COMMIT
UPD:G;ENTER
UPD:G;PROCEED
UPD:G;RESTORE
```

Output Messages
```
UPD-G,BACKOUT
UPD-G,COMMIT
UPD-G,ENTER
UPD-G,PROCEED
UPD-G,RESTORE
```

Practice 254-341-240 *DMERT Operating System Field Update Facilities Software Subsystem Description 3B20D Processor*

ID . . . . . OP-GROW
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . XUNIT,MAINT

1. FORMAT

This message has eight formats.

[1]
```
OP GROW MESSAGE STARTED
UNIT        MTCE   INH   DGN
a b[c d] e   f   g
```

[2]
```
OP GROW COMPLETED
```

[3]
```
OP GROW INTERFACE ERROR, ERRNO=h
```

[4]
```
OP GROW NOT STARTED
INVALID DATA FIELD
```

[5]
```
OP GROW NOT STARTED
RETRY LATER
```

[6]
```
OP GROW IN PROGRESS
a b[c d] e   f   g
```

[7]
```
OP GROW RETRY LATER i
```

[8]
```
OP GROW WRITE TO j
FAILED ON KEY #k
```

2. REASON FOR OUTPUT

To give device information specific to computer hardware units on communities requested via the OP:GROW input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

3. VARIABLE FIELD DEFINITIONS

a = Unit name. Computer unit names are listed in the Member Numbers Appendix, Table C, MEM-NUM-APPC.

b = Unit number. See the Member Numbers Appendix, Table C, MEM-NUM-APPC.

c = Subunit name, if *a* = CU. Computer CU subunit names are listed in the Member Numbers Appendix, Table D, MEM-NUM-APPD.

SEE PROPRIETARY NOTICE ON COVER PAGE

d = Subunit number. See the Member Numbers Appendix, Table C, MEM-NUM-APPC.

e = The current maintenance state of the unit is indicated by the following identifiers:

ACT — Active units
GROW — Units being grown
INIT — Initializing units
OFL — Offline units
OOS — Out-of-service units
STBY — Standby units
UNAV — Unavailable units
UNEQIP — Unequipped units

f = Indicates the current inhibit status of the associated error source:

ALW — Allowed
INH — Inhibited

g = Results of the last diagnostic on the unit:

ABT — Aborted diagnostics
ATP — All tests passed
CATP — Conditional all tests passed
NTR — No tests were run
STF — Some tests failed

h = Error number.

9 — cannot attach to plant measurement library
11 — cannot open equipment configuration database (ECD) sequence
12 — cannot sequence unit control blocks (UCBs)

i = Retry the command later for the following reasons.

```
CANNOT SEQUENCE DATABASE
CANNOT CREATE FILE IN /tmp
CANNOT GET DATABASE RECORD ID
```

j = Temporary output file name.

k = Key associated with write failure.

4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

5. ALARMS

This alarm is either a manually-requested report or is automatically-generated. Action may or may not be required.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 49 and 477.
Format 2 has OMDB keys of 50 and 478.
Format 3 has OMDB keys of 51 and 479.
Format 6 has OMDB keys of 580 and 582.
Format 7 has OMDB keys of 588 and 589.
Format 8 has an OMDB key of 656.

Appendixes

`MEM-NUM-APPC`
`MEM-NUM-APPD`

Input Messages

`OP:ACT`
`OP:CFGSTAT`
`OP:GROW`
`OP:INIT`
`OP:OFL`
`OP:OOS`
`OP:STBY`
`OP:UNAV`
`OP:UNEQIP`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . OP-INIT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . XUNIT,MAINT

1. FORMAT

This message has eight formats.

[1]
```
OP INIT MESSAGE STARTED
UNIT        MTCE   INH   DGN
a b[c d] e   f   g
```

[2]
```
OP INIT COMPLETED
```

[3]
```
OP INIT INTERFACE ERROR, ERRNO=h
```

[4]
```
OP INIT NOT STARTED
INVALID DATA FIELD
```

[5]
```
OP INIT NOT STARTED
RETRY LATER
```

[6]
```
OP INIT IN PROGRESS
a b[c d] e   f   g
```

[7]
```
OP INIT RETRY LATER i
```

[8]
```
OP INIT WRITE TO j
FAILED ON KEY #k
```

2. REASON FOR OUTPUT

To give device information specific to computer hardware units on communities requested via the OP:INIT input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

3. VARIABLE FIELD DEFINITIONS

a = Unit name. Computer unit names are listed in the Member Numbers Appendix, Table C, MEM-NUM-APPC.

b = Unit number. See the Member Numbers Appendix, Table C, MEM-NUM-APPC.

c = Subunit name, if *a* = CU. Computer CU subunit names are listed in the Member Numbers Appendix, Table C, MEM-NUM-APPC.

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d = Subunit number. See the Member Numbers Appendix, Table C, MEM-NUM-APPC.

e = The current maintenance state of the unit is indicated by the following identifiers.

ACT — Active units
GROW — Units being grown
INIT — Initializing units
OFL — Offline units
OOS — Out-of-service units
STBY — Standby units
UNAV — Unavailable units
UNEQIP — Unequipped units

f = Indicates the current inhibit status of the associated error source

ALW — Allowed
INH — Inhibited

g = Results of the last diagnostic on the unit.

ABT — Aborted diagnostics
ATP — All tests passed
CATP — Conditional all tests passed
NTR — No tests were run
STF — Some tests failed

h = Error number:

9 — cannot attach to plant measurement library
11 — cannot open equipment configuration database (ECD) sequence
12 — cannot sequence unit control blocks (UCBs)

i =
```
CANNOT SEQUENCE DATABASE
CANNOT CREATE FILE IN /tmp
CANNOT GET DATABASE RECORD ID
```

j = Temporary output file name.

k = Key associated with write failure.

4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

5. ALARMS

This alarm is either a manually-requested report or is automatically-generated. Action may or may not be required.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 49 and 477.
Format 2 has OMDB keys of 50 and 478.
Format 3 has OMDB keys of 51 and 479.
Format 6 has OMDB keys of 580 and 582.
Format 7 has OMDB keys of 588 and 589.
Format 8 has an OMDB key of 656.

Appendix

`MEM-NUM-APPC`

Input Messages

`OP:ACT`
`OP:CFGSTAT`
`OP:GROW`
`OP:INIT`
`OP:OFL`
`OP:OOS`
`OP:STBY`
`OP:UNAV`
`OP:UNEQIP`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . OP-IODRV
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1]
```
OP IODRV   MSG STARTED
 LVL
  a
 ID
  b
 CLASS
  c
 MSGSAVE
  ON|OFF
OP IODRV COMPLETED
```

[2]
```
OP IODRV NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS  d
```

[3]
```
OP IODRV ABORTED
```

[4]
```
OP IODRV ATTRIBUTE FILE UPDATED
```

2. REASON FOR OUTPUT

Format 1 prints the status of the current options set in the input/output processor (IOP) driver. These options are as requested in the `OP:IODRV` input message.

Format 4 indicates that the attribute file for the IOP driver messages was inconsistent with the IOP driver and has been updated to the current settings.

3. VARIABLE FIELD DEFINITIONS

a	=	Severity levels set.
b	=	Handler identifications set.
c	=	Classes set.
d	=	Process not initiated.
`ON`	=	Messages are being saved in the `IODRVLOG` log file.
`OFF`	=	Messages are not being saved in the `IODRVLOG` log file.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 221.
Formats 3 and 4 have an OMDB key of 161.

Input Messages
`CLR:IODRV`
`OP:IODRV`
`SET:IODRV`

Output Messages
`CLR-IODRV`
`SET-IODRV`

ID . . . . . OP-IOP,INFO
GENERIC . . . . . UNIX RTR R21.27 and later
TYPE . . . . . Output
MESSAGE CLASS . . VAR

1. FORMAT

This message has two formats.

[1] `OP IOP` *a* `INFO` *b c [d]*

[2] `OP IOP` *a* `INFO`

U_Name	Unit #	U_mv	State	PackCode	Versions	Ver_From
e	f	g	h	i	j	k

.
.
.

2. REASON FOR OUTPUT

To report the result of executing an `OP:IOP a;INFO` input message.

3. VARIABLE FIELD DEFINITIONS

a = IOP member number.

b = Message State.

`NOT STARTED`

`STOPPED`

`ERROR`

`ABORT`

c = Process step or Error Code.

f01 — Failed to enable message reception.
f03 — Failed to open ECD.
f06 — Failed to get UCB by name.
f08 — Failed to get down UCB.
f09 — Failed to get the side UCB.
f0a — Top UCB is not a IOP.
f10 — Failed to send message to I/O driver.
f11 — Failed to unreserve UCB.
f12 — Failed to receive ack. from I/O driver.
f13 — Failed to close ECD.
f14 — Failed to reserve UCB.
f15 — A message to driver has been lost, time out.
f16 — Terminated externally with signal.

SEE PROPRIETARY NOTICE ON COVER PAGE

f20 — Failed to get UCBL.
f21 — Failed to get PTA (page table address).
f23 — Failed to assign a dma slot.
f24 — Failed to queue a job.
f25 — Failed to define a task with an ucblp as the idcode, function timreq1 failed.
f27 — IO is BUSY.
f28 — Time out when access RAM.

d = System error code (set by libC functions, defined in sys/errno.h).

e = IOP unit name.

f = Unit number.

g = MV number.

h = Major States.

i = Pack code.

j = RAM code version.

k = RAM code version is read from.

`ECD` — Version is read from ECD.

`RAM` — Version is read from RAM.

`Number` — Error Code (same as the c field above).

4. ACTION TO BE TAKEN

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered. If any unit of the associated IOP is reserved, however, certain fields will contain information that is not available. For more complete information, try the message again after the unit is released.

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

5. ALARMS

None. This alarm is a manually-requested report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 766.
Format 2 has an OMDB key of 767.

Output Appendix
SYSERR-APP

Input Messages
OP:IOP;INFO

ID . . . . . OP-LOG-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . UTIL

1. FORMAT

This message has four formats.

[1] `OP LOG` *a b* `CORRUPT SEGMENT AT` *c*
g

[2] `OP LOG` *a* `FILE` *d* `CANNOT OPEN TEMPORARY FILE`

[3] `OP LOG` *a* `CANNOT OPEN LOGFILE`

[4] `OP LOG` *a* {`STARTED`|`IN PROGRESS`|`COMPLETED`} `SEGMENT` *e*
f
g

2. REASON FOR OUTPUT

Formats 1, 2, and 3 report that an error occurred when executing the `OP:LOG` input message.

3. VARIABLE FIELD DEFINITIONS

a = Name of the logfile.

b = Pathname of the file in which corruption was discovered.

c = Position, expressed in characters, in file where corruption was discovered.

d = Name of temporary file.

e = Number of output segment.

f = Time stamp.

g = Message text from the logfile entry.

4. ACTION TO BE TAKEN

If Format 1 prints, the contents of the corrupt log file must be SAVED on paper and/or tape for later reference. The corrupt logfile entries should be cleaned up by using the `DEL:LOG` input message on the logfile without any selection criteria.

If Format 2 prints, check the `/tmp` file system to see if all the space is used up.

If Format 3 prints, check to see if the log file exists under the pathname specified in the device record.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Keys
Formats 1, 2, and 3 have an OMDB key of 277.
Format 4 has an OMDB key of 279.

Input Messages
`DEL:LOG`
`OP:LOG`

ID . . . . . OP-LOG-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . UTIL

1. FORMAT

This message has 10 formats.

[1] `OP LOG` *a* *b* `CORRUPT SEGMENT AT` *c*
[*g*]

[2] `OP LOG` *a* `FILE` *d* `CANNOT OPEN TEMPORARY FILE`

[3] `OP LOG` *a* `CANNOT OPEN LOGFILE`

[4] `OP LOG` *a* {`STARTED`|`IN PROGRESS`|`COMPLETED`} `SEGMENT` *e*
f
[*g*]

[5] `OP LOG` *a* `OUTPUT FILE EXISTS` *h*

[6] `OP LOG` *a* `CANNOT CREATE OUTPUT FILE` *h*

[7] `OP LOG` *a* `OUTPUT DIRECTORY DOES NOT EXIST` *i*

[8] `OP LOG` *a* `OUTPUT DIRECTORY IS NOT WRITABLE` *i*

[9] `OP LOG` *a* `PASSED BAD PARM TYPE TO FILE FUNCTION`

[10] `OP LOG` *a* `STOPPED` *j*

2. REASON FOR OUTPUT

Formats 1, 2, 3, and 5 indicate that an error occurred when executing the `OP:LOG` input message.

Formats 6, 7, and 8 indicate a system error preventing creation of the file.

Format 9 indicates that the process is using invalid data in the message structure.

Formats 4 and 10 indicate the process status.

3. VARIABLE FIELD DEFINITIONS

a = Name of the logfile.

b = Pathname of the file in which corruption was discovered.

SEE PROPRIETARY NOTICE ON COVER PAGE

c = Position, expressed in characters, in file where corruption was discovered.

d = Name of temporary file.

e = Number of output segment.

f = Time stamp.

g = Message text from the logfile entry. If the output file parameter has been requested, this will not appear.

h = Name of the output file to be created in `/fmt`

i = Name of the directory where the output file will be created

j = The `STOPPED` reason code

`40` — cannot open temporary file
`201` — given output file name is too long
`202` — implied output file path name is too long
`203` — given output file is formatted incorrectly
`208` — given input file name is too long
`211` — cannot create temporary file
`212` — cannot write temporary file

4. ACTION TO BE TAKEN

If Format 1 prints, the contents of the corrupt logfile must be SAVED on paper and/or tape for later reference. The corrupt logfile entries should be cleaned up by using the `DEL:LOG` input message on the logfile without any selection criteria.

If Format 2 prints, check the `/tmp` file system to see if all the space is used up.

If Format 3 prints, check to see if the logfile exists under the pathname specified in the device record.

If Format 5 prints, retry the command with a file name that is 14 characters or less and contains no slashes (/) to denote a sub-directory.

If Format 6 prints, check to see if there are i-nodes available on the file system partition in which that directory resides. If i-nodes are available, contact technical support for further assistance.

If Format 7 or 8 prints, check to see if the identified directory exists and has write permission.

If Format 9 prints, contact technical support for further assistance.

If Format 10 prints, check `SPLLOG` for `CSOP` error messages.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This alarm is either a manually-requested report, or an automatically-generated report for information only.

6. REFERENCES

OMDB Keys
Formats 1, 2, and 3 have an OMDB key of 277.
Format 4 has an OMDB key of 279.
Formats 5 through 10 have an OMDB key of 276.

Input Messages
`DEL:LOG`
`OP:LOG`

ID . . . . . OP-MEMERRS-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has five formats.

[1]
```
OP MEMERRS {IN PROGRESS | COMPLETED}
DATE      TIME  CU MASC MY/OTH TYPE SLOT DEV UNCORR/CORR
mm/dd/yy  hh mm  a    b      c    d    e   f       g
ACCESS ERRASRC
   h        i
   [j]
```

[2]
```
OP MEMERRS CANNOT OPEN NEW TEMP FILE
```

[3]
```
OP MEMERRS NO MEMLOG FILES
```

[4]
```
OP MEMERRS NOT STARTED
```

[5]
```
OP MEMERRS COMPLETED
NO MEMLOG ENTRIES MATCH THE SPECIFIED DATE
```

2. REASON FOR OUTPUT

To report a table of interpreted memory errors from MEMLOG.

Format 3 indicates there are no memory errors stored in the log files.

3. VARIABLE FIELD DEFINITIONS

NOTE: When a variable has no value, a dash("-") is printed in its place.

mm/dd/yy = Date that the memory error occurred. Listed in the form of month / day / year.

hh mm = Time of day of the memory error. Listed in the form of hour and minute.

a = Control unit (CU) number of the faulty unit.

b = Main store controller of the faulty unit.

c = Indicates where the error occurred.

MY — My store
OTH — Other store

d = Type of memory error that occurred.

Error A — An "or" over several circuit checks resulted in error detection.

Error B — An attempt was made to access an unequipped memory array or module.

Error C — The Hamming check circuitry detected a multi-bit uncorrectable error during a system access of memory.

Error D — A system or refresh access of memory detected an error.

e = Slot number of the faulty data. This number is relative to the CU.

f = Hexadecimal code identifier for memory devices.

This value is only reported on an error D and is used to locate the faulty chip on the array board. The form of this identifier is `nnss` where `ss` is the side (A, B, 1A, 1B, 2A, 2B) of the memory device.

g = Indicates whether the detected error was correctable or uncorrectable.

h = Indicates whether the error was detected during system or refresh access.

i = The error A interrupt source formed from an "or" of several check circuits internal to the memory controller. The error A source is only output if an error A has occurred.

j = An optional warning or abort message of the form:

```
SLOT NUMBERS ARE INVALID
```

4. ACTION TO BE TAKEN

If the abort message appears, remove any files in directory `tmp` of the form `MEMERRS-`*`XXXXXX`* and try the message again.

If the warning message that the slot numbers are invalid appears, the slot numbers in the table cannot be trusted. This message indicates that the equipment configuration database (ECD) cannot be properly accessed; seek technical assistance to rectify this problem. Also, all equipment is assumed to be the same as in CU 0 and only MASC 0 and MASC 1 are allowed for any CU.

If question marks (?) appear at any place, the data being read is invalid. Output will resume at the next valid entry.

Format 3 is not an error condition. It requires no action.

5. ALARMS

None. This alarm is a manually-requested report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 428.
Format 2 has an OMDB key of 427.
Format 3 has an OMDB key of 429.
Format 5 has an OMDB key of 600.

Input Message
```
OP:MEMERRS
```

ID . . . . . OP-MEMERRS-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has seven formats.

[1]
```
OP MEMERRS {IN PROGRESS | COMPLETED}
DATE      TIME  CU MASC MY/OTH TYPE SLOT DEV UNCORR/CORR
mm/dd/yy  hh mm  a    b      c    d    e   f      g
ACCESS ERRASRC
   h        i
   [j]
```

[2]
```
OP MEMERRS CANNOT OPEN NEW TEMP FILE
```

[3]
```
OP MEMERRS NO MEMLOG FILES
```

[4]
```
OP MEMERRS NOT STARTED
```

[5]
```
OP MEMERRS CANNOT OPEN ECD FOR MEMLOG
```

[6]
```
OP MEMERRS CANNOT RETRIEVE MEMLOG RECORD FROM ECD
```

[7]
```
OP MEMERRS COMPLETED
NO MEMLOG ENTRIES MATCH THE SPECIFIED DATE
```

2. REASON FOR OUTPUT

To report a table of interpreted memory errors from MEMLOG.

Format 3 indicates the information message stating that there are no memory errors stored in the log files.

3. VARIABLE FIELD DEFINITIONS

NOTE: When a variable has no value, a dash("-") is printed in its place.

mm/dd/yy = Date that the memory error occurred. Listed in the form of month / day / year.

hh mm = Time of day of the memory error. Listed in the form of hour and minute.

a = Control unit (CU) number of the faulty unit.

b = Main store controller of the faulty unit.

c = Indicates where the error occurred.

MY — My store.
OTH — Other store.

d = Type of memory error that occurred.

Error A — An "or" over several circuit checks resulted in error detection.

Error B — An attempt was made to access an unequipped memory array or module.

Error C — The Hamming check circuitry detected a multi-bit uncorrectable error during a system access of memory.

Error D — A system or refresh access of memory detected an error.

e = Slot number of the faulty data. This number is relative to the CU.

f = Hexadecimal code identifier for memory devices.

This value is only reported on an error D and is used to locate the faulty chip on the array board. The form of this identifier is `nnss` where `ss` is the side (A, B, 1A, 1B, 2A, 2B) of the memory device.

g = Indicates whether the detected error was correctable or uncorrectable.

h = Indicates whether the error was detected during system or refresh access.

i = The error A interrupt source formed from an "or" of several check circuits internal to the memory controller. The error A source is only output if an error A has occurred.

j = An optional warning or abort message of the form:

```
SLOT NUMBERS ARE INVALID
```

4. ACTION TO BE TAKEN

If the abort message appears, remove any files in directory `tmp` of the form `MEMERRS-`*`XXXXXX`* and retry the message.

If the warning message that the slot numbers are invalid appears, the slot numbers in the table cannot be trusted. This message indicates that the equipment configuration database (ECD) cannot be properly accessed; seek technical assistance to rectify this problem. Also, all equipment is assumed to be the same as in CU 0 and only MASC 0 and MASC 1 are allowed for any CU.

If question marks (?) appear at any place, the data being read is invalid. Output will resume at the next valid entry.

Format 3 is not an error condition. It requires no action.

5. ALARMS

None. This alarm is a manually-requested report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 428.
Format 2 has an OMDB key of 427.
Format 3 has an OMDB key of 429.
Format 5 has an OMDB key of 598.
Format 6 has an OMDB key of 597.
Format 7 has an OMDB key of 600.

Input Message
```
OP:MEMERRS
```

ID . . . . . OP-MEMERRS-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has nine formats.

[1] `OP MEMERRS {IN PROGRESS | COMPLETED}`
`DATE TIME CU MASC MY/OTH TYPE SLOT DEV UNCORR/CORR`
mm/dd/yy hh mm a b c d e f g
`ACCESS ERRASRC`
h i
[j]

[2] `OP MEMERRS CANNOT OPEN NEW TEMP FILE`

[3] `OP MEMERRS NO MEMLOG FILES`

[4] `OP MEMERRS NOT STARTED`
`CONFLICT WITH CURRENT SYSTEM STATUS - NOT AVAILABLE ON HW PLATFORM`

[5] `OP MEMERRS CANNOT OPEN ECD FOR MEMLOG`

[6] `OP MEMERRS CANNOT RETRIEVE MEMLOG RECORD FROM ECD`

[7] `OP MEMERRS COMPLETED`
`NO MEMLOG ENTRIES MATCH THE SPECIFIED DATE`

[8] `OP MEMERRS CANNOT WRITE TEMPORARY FILE` *k*

[9] `OP MEMERRS CANNOT CLOSE TEMPORARY FILE` *k*

2. REASON FOR OUTPUT

To report a table of interpreted 3B20D CU memory errors from `MEMLOG`. 3B21D CU memory errors are not interpreted because there is only one memory board in each CU.

Format 3 indicates the information message stating that there are no memory errors stored in the log files.

Format 4 indicates that memory error interpretation was requested on 3B21D CU memory errors.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

NOTE: When a variable has no value, a dash("-") is printed in its place.

mm/dd/yy = Date that the memory error occurred. Listed in the form of month / day / year.

hh mm = Time of day of the memory error. Listed in the form of hour and minute.

a = Control unit (CU) number of the faulty unit.

b = Main store controller of the faulty unit.

c = Indicates where the error occurred.

`MY` — My store.
`OTH` — Other store.

d = Type of memory error that occurred.

Error A — An "or" over several circuit checks resulted in error detection.

Error B — An attempt was made to access an unequipped memory array or module.

Error C — The Hamming check circuitry detected a multi-bit uncorrectable error during a system access of memory.

Error D — A system or refresh access of memory detected an error.

e = Slot number of the faulty data. This number is relative to the CU.

f = Hexadecimal code identifier for memory devices.

This value is only reported on an error D and is used to locate the faulty chip on the array board. The form of this identifier is `nnss` where `ss` is the side (A, B, 1A, 1B, 2A, 2B) of the memory device.

g = Indicates whether the detected error was correctable or uncorrectable.

h = Indicates whether the error was detected during system or refresh access.

i = The error A interrupt source formed from an "or" of several check circuits internal to the memory controller. The error A source is only output if an error A has occurred.

j = An optional warning or abort message of the form:

```
SLOT NUMBERS ARE INVALID
```

k = The name of the temporary file.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

If the abort message appears, remove any files in directory `tmp` of the form `MEMERRS-`*`XXXXXX`* and retry the message.

If the warning message that the slot numbers are invalid appears, the slot numbers in the table cannot be trusted. This message indicates that the equipment configuration database (ECD) cannot be properly accessed; seek technical assistance to rectify this problem. Also, all equipment is assumed to be the same as in CU 0 and only MASC 0 and MASC 1 are allowed for any CU.

If question marks (?) appear at any place, the data being read is invalid. Output will resume at the next valid entry.

Format 3 is not an error condition. It requires no action.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 428.
Format 2 has an OMDB key of 427.
Format 3 has an OMDB key of 429.
Format 5 has an OMDB key of 598.
Format 6 has an OMDB key of 597.
Format 7 has an OMDB key of 600.
Formats 8 and 9 have an OMDB key of 713.

Input Message
```
OP:MEMERRS
```

ID . . . . . OP-MHD,INFO-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has five formats.

[1] `OP MHD` *a* `INFO NOT STARTED` *b c*

[2] `OP MHD` *a* `INFO STOPPED` *b c*

[3] `OP MHD` *a* `INFO ERROR` *b c*

[4] `OP MHD` *a* `INFO ABORTED` *b*

[5] `OP MHD` *a* `INFO`
`CONTROLLER: DFC` *d* `MICROCODE VERSION:` *e*
`UNIT DID PORT STATUS EQUIPAGE TRCKS VTOC USABLE RSVD ESNTL MATE`
`MHD` *j k l m n o p q r s t*

2. REASON FOR OUTPUT

To report the result of executing an `OP:MHD;INFO` input message.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the moving head disk (MHD) drive.

b = Process step or reason code.

f06 — failed to open equipment configuration database (ECD)
f07 — failed to get next unit control block (UCB)
f09 — failed to get UCB by name
f13 — failed to assign special device file name for MHD
f15 — failed to assign special device file name for disk file controller (DFC)
f16 — failed to open special device file for MHD
f18 — failed to open special device file for DFC
f19 — failed to get UCB of DFC
f21 — failed to set input/output mode of device file
f24 — failed to enable message reception
f27 — see accompanying disk driver (DKDRV) error report on the receive-only printer (ROP)
f28 — see accompanying DKDRV error report on the ROP
f29 — see accompanying DKDRV error report on the ROP
f30 — failed to close special device file of unit
f31 — failed to close special device file of unit
f32 — failed to close special device file of unit
f39 — failed to close ECD

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f40 — failed to release special device file of unit
f41 — failed to release special device file of unit
f42 — failed to release special device file of unit
f51 — message to port failure
f54 — message reception failure
f57 — process timed out
f60 — failed to release UCB of unit for DFC
f61 — failed to release UCB of unit
f62 — failed to release UCB of unit
f66 — terminated externally with signal

c = System error code number. See the System Error Codes Output Appendix, SYSERR-APP.

d = Unit number controller.

e = DFC microcode version.

— NOT AVAILABLE
— *f.g.h - i*

f = Version of DFC MICROCODE.
g = Issue of DFC MICROCODE.
h = Point issue of DFC MICROCODE.
i = Laboratory design issue (LDI) of DFC MICROCODE.

j = Unit number.

k = Device ID (drive ID plug number).

l = Physical port.

— The DFC physical port connection number is displayed if DFC MICROCODE VERSION is 3.2.0 or later.
— NA (not available) indicates an earlier DFC MICROCODE VERSION or the DFC was unavailable.
— NA is also output if the unit is reserved.

m = Major status of unit.

n = Equipment (drive type), in megabytes.

— 160MB
— 300MB
— 340MB
— 675MB
— NA - DFC was unavailable.
— NA is also output if the unit is reserved.

o = Number of tracks on disk drive.

— Value - decimal number of the disk tracks.
— NA - DFC was unavailable.
— NA is also output if the unit is reserved.

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p = Validity of the volume table of contents (VTOC).

`INVALID` — There is no valid entry for the VTOC.
`UNRDBLE` — The command encountered an error while trying to read the VTOC.
`VALID` — VTOC has a valid entry for the VTOC.
`NA` — Could not reserve unit; VTOC not read.

q = Usability.

`YES` — The unit is usable.
`NO` — The unit is not usable.

r = Unit reserved.

`YES` — The unit is reserved for maintenance activity.
`NO` — The unit is not reserved for maintenance activity.

s = Unit essential.

Value — hexadecimal value of the essential field of the unit's UCB.

t = Unit's mate.

Unit — Unit name and number of duplex mate.
`SMPLX` — The unit has no mate.

4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered. If the unit is reserved, however, certain fields will contain information that is not available. For more complete information, try the command again after the unit is released.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1 through 4 have an OMDB key of 153.
Format 5 has an OMDB key of 151.

Output Appendix
`SYSERR-APP`

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
OP:DFC;INFO
OP:MHD;INFO
```

Output Message

```
OP-DFC,INFO
```

ID . . . . . OP-MHD,INFO-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has six formats.

[1] `OP MHD` *a* `INFO NOT STARTED` *b c*

[2] `OP MHD` *a* `INFO STOPPED` *b c*

[3] `OP MHD` *a* `INFO ERROR` *b c*

[4] `OP MHD` *a* `INFO ABORTED` *b*

[5]
```
OP MHD a INFO
CONTROLLER:  DFC d
FIRMCODE VERSION: e
PUMPCODE VERSION: e

UNIT    DID PORT STATUS TRCKS  VTOC   USABLE RSVD ESNTL  MATE
------ --- ---- ------ ----- ------- ------ ---- ----- ------
MHD f   g   h    i     j     k      l      m    n     o
.
.
.

    **** EQUIPAGE SIZE ****   SIZES         PRODUCT
UNIT      DRIVE    UCB    VTOC   COMPATIBLE  IDENTIFICATION
------ ------- ------- ------- ---------- ----------------
MHD f   p     q    r      s       t
.
.
.
```

[6]
```
OP MHD a INFO
CONTROLLER:  DFC d
FIRMCODE VERSION: e
PUMPCODE VERSION: e

SBUS u  SCSI HA BUS v   STATUS: i
UNIT    DID PORT STATUS TRCKS  VTOC   USABLE RSVD ESNTL  MATE
------ --- ---- ------ ----- ------- ------ ---- ----- ------
MHD f  g  h   i   j   k   l   m   n   o
.
.
.

    **** EQUIPAGE SIZE ****   SIZES        PRODUCT
UNIT      DRIVE    UCB    VTOC   COMPATIBLE  IDENTIFICATION
------ ------- ------- ------- ---------- ----------------
MHD f   p     q    r     s       t
.
.
.
```

2. REASON FOR OUTPUT

To report the result of executing an `OP:MHD;INFO` input message.

Format 5 is used to output data for an storage module device (SMD) moving head disk (MHD).

Format 6 is used to output data for a small computer system interface (SCSI) MHD.

3. VARIABLE FIELD DEFINITIONS

a = MHD member number.

b = Process step or reason code.

f01 — failed to enable message reception
f03 — failed to open ECD
f06 — failed to get UCB by name
f09 — failed to get UCB of SBUS
f0c — failed to get UCB of DFC
f0e — failed to get UCB of DFC
f11 — failed to assign SDF name for DFC
f14 — failed to open SDF for DFC
f17 — see DKDRV report on the ROP
f1a — failed to close special device file
f1c — failed to release special device file
f1f — failed to unreserve DFC UCB
f23 — failed to get next UCB
f26 — failed to assign SDF name for MHD
f29 — failed to open SDF for MHD
f2c — failed to set I/O mode of device file

SEE PROPRIETARY NOTICE ON COVER PAGE

f2f — see DKDRV report on the ROP
f33 — see DKDRV report on the ROP
f36 — failed to close MHD SDF
f37 — failed to release MHD SDF
f38 — failed to unreserve MHD UCB
f3e — message to port failure
f43 — message reception failure
f46 — process timed out
f49 — failed to close special device file
f4c — failed to release special device file
f4f — failed to unreserve UCB
f53 — failed to close ECD
f56 — terminated externally with signal

c = System error code number. See the System Error Codes Output Appendix, SYSERR-APP.

d = Unit number of controller.

e = DFC firmware/pumpcode version.

A.B.C — D

A = Version of DFC FIRMWARE/PUMPCODE.

B = Issue of DFC FIRMWARE/PUMPCODE.

C = Point issue of DFC FIRMWARE/PUMPCODE.

D = Laboratory design issue (LDI) of DFC FIRMWARE/PUMPCODE.

NAV — The firmware or pumpcode versions are not available, or cannot be determined.

NAP — The pumpcode version is not applicable for SMD DFCs.

f = Unit number.

g = Device ID (drive ID number).

h = Physical port.

The physical port number is where the SMD MHD is connected to the DFC.

data — Physical port number.

NAV — The DFC is not available,
or the DFC is reserved,
or the SMD DFC firmware/pumpcode version is earlier than 3.2.0.

NAP — Not applicable for SCSI disks.

i = Major status of unit.

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j = Number of tracks on the disk drive.

data — Decimal number of disk tracks.

NAV — DFC is not available, or the unit is reserved.

NAP — Not applicable for SCSI disks.

o = Validity of the volume table of contents (VTOC).

VALID — VTOC has a valid VTOC entry.

INVALID — Could not find a valid VTOC entry.

UNRDBLE — Read error while trying to read VTOC.

NAV — Could not reserve unit - VTOC not read.

l = Usability.

YES — Disk is considered usable.

NO — Disk data integrity is unknown.

m = Unit reserved.

YES — Unit is reserved for maintenance activity.

NO — Unit is not reserved.

n = Unit essential.

data — Hexadecimal value of the essential field of the unit's UCB.

o = Unit's mate.

Unit — Name and unit number of duplex mate.

SMPLX — Unit has no mate.

p = Equipage size based on the physical drive.

For SCSI disks, the physical drive size is determined by reading the capacity of the disk from the disk drive itself. For SMD disks, the physical drive size is determined by reading the equipage value in the UCB record.

160MB — (SMD disk drive)

300MB — (SMD disk drive)

322MB — (SCSI disk drive)

340MB — (SMD disk drive)

600MB — (SCSI disk drive)

1000MB — (SCSI disk drive)

NAV — The DFC is not active,
or the SCSI MHD is inaccessible,
or the unit is reserved.

SEE PROPRIETARY NOTICE ON COVER PAGE

q = Equipage size based on the UCB equipage value.

The drive size is determined by reading the equipage value in the UCB record for the unit.

160MB — (SMD disk drive)

300MB — (SMD disk drive)

322MB — (SCSI disk drive)

340MB — (SMD disk drive)

600MB — (SCSI disk drive)

1000MB — (SCSI disk drive)

NAV — The DFC is not active, or the unit is reserved.

r = Equipage size based on the VTOC.

The drive size is derived from the maximum capacity of the unit's VTOC.

160MB — (SMD disk drive)

300MB — (SMD disk drive)

322MB — (SCSI disk drive)

340MB — (SMD disk drive)

600MB — (SCSI disk drive)

1000MB — (SCSI disk drive)

NAV — The DFC is not active, or the unit is reserved, or the unit is inaccessible.

s = Sizes compatible.

YES — DRIVE, UCB, and VTOC equipage sizes are compatible.

NO — DRIVE, UCB, and VTOC equipage sizes are not compatible.

NAV — At least one of the equipage sizes are not available.

Equipage sizes are not compatible if the drive size is not equal to the UCB equipage size or if the drive size is smaller than the VTOC size.

SEE PROPRIETARY NOTICE ON COVER PAGE

Size comparisons are based on the formatted capacity of a disk drive. The formatted capacity of the LUCENT RTR-supported disk drives are as follows:

Drive	Formatted Capacity
160MB	133MB
300MB	253MB
322MB	322MB
340MB	277MB
600MB	604MB
1000MB	1000MB

t = Product identification.

NAP — Not applicable for SMD disks.

NAV — The DFC is not active,
or the unit is reserved,
or the SCSI MHD is inaccessible.

data — Alphanumeric data representing the product identification of a SCSI disk.

u = SBUS unit number if the DFC is a SCSI device.

Unit Number — Logical unit number of the SCSI bus that is stored in the SBUS's UCB.

v = SCSI HA bus identification number, either 0 or 1.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered.

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

For Formats 5 and 6, if the drive equipage sizes are not compatible, verify the correctness of the UCB equipage value. If there is still an inconsistency, contact the next level of technical assistance.

5. ALARMS

This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1 through 4 have an OMDB key of 153.
Format 5 has an OMDB key of 151.
Format 6 has an OMDB key of 572.

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Appendix
SYSERR-APP

Input Messages
OP:DFC;INFO
OP:MHD;INFO

ID . . . . . OP-MHD,INFO-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 thru R21.25
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has six formats.

[1] `OP MHD` *a* `INFO NOT STARTED` *b c*

[2] `OP MHD` *a* `INFO STOPPED` *b c*

[3] `OP MHD` *a* `INFO ERROR` *b c*

[4] `OP MHD` *a* `INFO ABORTED` *b*

[5]
```
OP MHD a INFO
CONTROLLER:  DFC d  STATUS: j
FIRMWARE VERSION: e
PUMPCODE VERSION: e

UNIT    DID PORT STATUS TRCKS  VTOC   USABLE RSVD ESNTL  MATE
------ --- ---- ------ ----- ------- ------ ---- ----- ------
MHD f   h  i   j    k    l    m    n    o    p
.
.
.

    **** EQUIPAGE SIZE ****   SIZES
UNIT      DRIVE    UCB    VTOC   COMPATIBLE
------ ------- ------- ------- ----------
MHD f    q    r    s    t
.
.
.
```

[6]
```
OP MHD a INFO
CONTROLLER:  DFC d  STATUS: j
FIRMWARE VERSION: e
PUMPCODE VERSION: e

SBUS x  SCSI HA BUS y   STATUS: j

UNIT       DEVICE TYPE     DID STATUS  VTOC   USABLE RSVD ESNTL  MATE
------ ----------------- --- ------ ------- ------ ---- ----- ------
MHD f      g      h  j    l    m    n    o    p
.
.
.

    **** EQUIPAGE SIZE ****   SIZES
UNIT     DRIVE    UCB    VTOC   COMPATIBLE
------ ------- ------- ------- ----------
MHD f    q    r    s    t
.
.
.

      PRODUCT        REV
UNIT     IDENTIFICATION  LEVEL    SERIAL NUMBER
------ ---------------- ----- ------------------
MHD f     u      v      w
.
.
.
```

2. REASON FOR OUTPUT

To report the result of executing an `OP:MHD;INFO` input message.

Format 5 is used to output data for an storage module device (SMD) moving head disk (MHD).

Format 6 is used to output data for a small computer system interface (SCSI) MHD.

3. VARIABLE FIELD DEFINITIONS

a = MHD member number.

b = Process step or reason code.

f01 — failed to enable message reception
f03 — failed to open ECD
f06 — failed to get UCB by name
f08 — failed to get top UCB
f0a — top UCB is not a DFC
f0c — unknown DFC type
f0e — failed to get UCB of SBUS

SEE PROPRIETARY NOTICE ON COVER PAGE

f11 — failed to assign special device file name for DFC
f14 — failed to open special device file for DFC
f17 — see DKDRV report on the ROP
f1a — failed to close special device file
f1c — failed to release special device file
f1f — failed to unreserve DFC UCB
f23 — failed to get next UCB
f26 — failed to assign special device file name
f29 — failed to open special device file
f2c — failed to set I/O mode of device file
f2f — device size not recognized
f33 — see DKDRV report on the ROP
f36 — failed to close special device file
f37 — failed to release special device file
f38 — failed to unreserve device UCB
f3e — message to port failure
f43 — message reception failure
f46 — process timed out
f49 — failed to close special device file
f4c — failed to release special device file
f4f — failed to unreserve UCB
f53 — failed to close ECD
f56 — terminated externally with signal

c = System error code number. See the System Error Codes Output Appendix, SYSERR-APP.

d = Member number of controller.

e = DFC firmware/pumpcode version.

A.B.C — D

A = Version of DFC FIRMWARE/PUMPCODE.

B = Issue of DFC FIRMWARE/PUMPCODE.

C = Point issue of DFC FIRMWARE/PUMPCODE.

D = Laboratory design issue (LDI) of DFC FIRMWARE/PUMPCODE.

NAP — The pumpcode version is not applicable for SMD DFCs.

NAV — The firmware or pumpcode versions are not available, or cannot be determined.

f = Unit number.

g = Device type.

h = Device ID (drive ID number).

i = Physical port where the SMD disk is connected to the DFC.

NAV — The DFC is not available,
or the DFC is reserved,
or the SMD DFC firmware/pumpcode version is earlier than 3.2.0.

data — Physical port number.

j = Major status of unit.

k = Number of tracks on the SMD disk drive.

NAV — DFC is not available, or the unit is reserved.

data — Decimal number of disk tracks.

l = Validity of the volume table of contents (VTOC).

VALID — VTOC has a valid VTOC entry.

INVALID — Could not find a valid VTOC entry.

UNRDBLE — Read error while trying to read VTOC.

NAV — Could not reserve unit - VTOC not read.

m = Usability.

YES — Disk is considered usable.

NO — Disk data integrity is unknown.

n = Unit reserved.

YES — Unit is reserved for maintenance activity.

NO — Unit is not reserved.

o = Unit essential.

data — Hexadecimal value of the essential field of the unit's UCB.

p = Unit's mate.

SMPLX — Unit has no mate.

data — Unit name and member number of duplex mate.

SEE PROPRIETARY NOTICE ON COVER PAGE

q = Equipage size based on the physical drive.

For SCSI disks, the physical drive size is determined by reading the capacity of the disk from the disk drive itself. For SMD disks, the physical drive size is determined by reading the equipage value in the UCB record.

160MB — (SMD disk drive)
300MB — (SMD disk drive)
322MB — (SCSI disk drive)
340MB — (SMD disk drive)
600MB — (SCSI disk drive)
1000MB — (SCSI disk drive)
NAV — The DFC is not active,
or the SCSI device is inaccessible,
or the unit is reserved.

r = Equipage size based on the UCB equipage value.

The drive size is determined by reading the equipage value in the UCB record for the unit.

160MB — (SMD disk drive)
300MB — (SMD disk drive)
322MB — (SCSI disk drive)
340MB — (SMD disk drive)
600MB — (SCSI disk drive)
1000MB — (SCSI disk drive)
NAV — The DFC is not active,
or the unit is reserved.

s = Equipage size based on the VTOC.

The drive size is derived from the maximum capacity of the unit's VTOC.

160MB — (SMD disk drive)
300MB — (SMD disk drive)
322MB — (SCSI disk drive)
340MB — (SMD disk drive)
600MB — (SCSI disk drive)
1000MB — (SCSI disk drive)
NAV — The DFC is not active,
or the unit is reserved,
or the unit is inaccessible.

SEE PROPRIETARY NOTICE ON COVER PAGE

t = Sizes compatible.

YES — DRIVE, UCB, and VTOC equipage sizes are compatible.

NO — DRIVE, UCB, and VTOC equipage sizes are not compatible.

NAV — At least one of the equipage sizes are not available.

Equipage sizes are not compatible if the drive size is not equal to the UCB equipage size or if the drive size is smaller than the VTOC size.

Size comparisons are based on the formatted capacity of a disk drive. The formatted capacity of the LUCENT RTR-supported disk drives are as follows:

Drive	Formatted Capacity
160MB	133MB
300MB	253MB
322MB	322MB
340MB	277MB
600MB	604MB
1000MB	1000MB

u = Product identification.

NAV — The DFC or the SBUS is not active,
or the unit is reserved,
or the SCSI device is inaccessible.

data — Alphanumeric data representing the product identification of a SCSI device.

v = Revision level.

NAV — The DFC or the SBUS is not active,
or the unit is reserved,
or the SCSI device is inaccessible.

data — Alphanumeric data representing the revision level of the firmware in a SCSI device.

w = Serial number.

NAP — Not applicable for this device.

NAV — The DFC or the SBUS is not active,
or the unit is reserved,
or the SCSI device is inaccessible.

data — Alphanumeric data representing the serial number of a SCSI device.

SEE PROPRIETARY NOTICE ON COVER PAGE

x = SBUS unit number if the DFC is a SCSI device.

Unit Number — Logical unit number of the SCSI bus that is stored in the SBUS's UCB.

y = SCSI HA bus identification number: either 0 or 1.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered.

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

For Formats 5 and 6, if the drive equipage sizes are not compatible, verify the correctness of the UCB equipage value. If there is still an inconsistency, contact the next level of technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1 through 4 have an OMDB key of 153.
Format 5 has an OMDB key of 151.
Format 6 has an OMDB key of 572.

Output Appendix
`SYSERR-APP`

Input Messages
`OP:DFC;INFO`
`OP:MHD;INFO`

ID . . . . . OP-MHD,INFO-D
GENERIC . . . . . UNIX RTR R21.27 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has six formats.

[1] `OP MHD` *a* `INFO NOT STARTED` *b c*

[2] `OP MHD` *a* `INFO STOPPED` *b c*

[3] `OP MHD` *a* `INFO ERROR` *b c*

[4] `OP MHD` *a* `INFO ABORTED` *b*

[5]
```
OP MHD a INFO
CONTROLLER:  DFC d  STATUS: j
FIRMWARE VERSION: e
PUMPCODE VERSION: e

UNIT    DID PORT STATUS TRCKS  VTOC   USABLE RSVD ESNTL  MATE
------ --- ---- ------ ----- ------- ------ ---- ----- ------
MHD f   h  i    j    k    l    m    n    o    p
.
.
.

    **** EQUIPAGE SIZE ****   SIZES
UNIT      DRIVE    UCB    VTOC   COMPATIBLE
------ ------- ------- ------- ----------
MHD f    q    r    s    t
.
.
.
```

[6]
```
OP MHD a INFO
CONTROLLER:  DFC d  STATUS: j
FIRMWARE VERSION: e
PUMPCODE VERSION: e

SBUS x  SCSI HA BUS y   STATUS: j

UNIT       DEVICE TYPE     DID STATUS  VTOC   USABLE RSVD ESNTL  MATE
------ ----------------- --- ------ ------- ------ ---- ----- ------
MHD f      g      h  j    l    m    n    o    p
.
.
.

    **** EQUIPAGE SIZE ****   SIZES
UNIT     DRIVE    UCB    VTOC   COMPATIBLE
------ ------- ------- ------- ----------
MHD f    q    r    s    t
.
.
.

      PRODUCT        REV
UNIT     IDENTIFICATION  LEVEL    SERIAL NUMBER
------ ---------------- ----- ------------------
MHD f     u      v      w
.
.
.
```

2. REASON FOR OUTPUT

To report the result of executing an `OP:MHD;INFO` input message.

Format 5 is used to output data for an storage module device (SMD) moving head disk (MHD).

Format 6 is used to output data for a small computer system interface (SCSI) MHD.

3. VARIABLE FIELD DEFINITIONS

a = MHD member number.

b = Process step or reason code.

f01 — failed to enable message reception
f03 — failed to open ECD
f06 — failed to get UCB by name
f08 — failed to get top UCB
f0a — top UCB is not a DFC
f0c — unknown DFC type
f0e — failed to get UCB of SBUS

SEE PROPRIETARY NOTICE ON COVER PAGE

f11 — failed to assign special device file name for DFC
f14 — failed to open special device file for DFC
f17 — see DKDRV report on the ROP
f1a — failed to close special device file
f1c — failed to release special device file
f1f — failed to unreserve DFC UCB
f23 — failed to get next UCB
f26 — failed to assign special device file name
f29 — failed to open special device file
f2c — failed to set I/O mode of device file
f2f — device size not recognized
f33 — see DKDRV report on the ROP
f36 — failed to close special device file
f37 — failed to release special device file
f38 — failed to unreserve device UCB
f3e — message to port failure
f43 — message reception failure
f46 — process timed out
f49 — failed to close special device file
f4c — failed to release special device file
f4f — failed to unreserve UCB
f53 — failed to close ECD
f56 — terminated externally with signal

c = System error code number. See the System Error Codes Output Appendix, SYSERR-APP.

d = Member number of controller.

e = DFC firmware/pumpcode version.

A.B.C — D

A = Version of DFC FIRMWARE/PUMPCODE.

B = Issue of DFC FIRMWARE/PUMPCODE.

C = Point issue of DFC FIRMWARE/PUMPCODE.

D = Laboratory design issue (LDI) of DFC FIRMWARE/PUMPCODE.

NAP — The pumpcode version is not applicable for SMD DFCs.

NAV — The firmware or pumpcode versions are not available, or cannot be determined.

f = Unit number.

g = Device type.

h = Device ID (drive ID number).

i = Physical port where the SMD disk is connected to the DFC.

NAV — The DFC is not available,
or the DFC is reserved,
or the SMD DFC firmware/pumpcode version is earlier than 3.2.0.

data — Physical port number.

j = Major status of unit.

k = Number of tracks on the SMD disk drive.

NAV — DFC is not available, or the unit is reserved.

data — Decimal number of disk tracks.

l = Validity of the volume table of contents (VTOC).

VALID — VTOC has a valid VTOC entry.

INVALID — Could not find a valid VTOC entry.

UNRDBLE — Read error while trying to read VTOC.

NAV — Could not reserve unit - VTOC not read.

m = Usability.

YES — Disk is considered usable.

NO — Disk data integrity is unknown.

n = Unit reserved.

YES — Unit is reserved for maintenance activity.

NO — Unit is not reserved.

o = Unit essential.

data — Hexadecimal value of the essential field of the unit's UCB.

p = Unit's mate.

SMPLX — Unit has no mate.

data — Unit name and member number of duplex mate.

SEE PROPRIETARY NOTICE ON COVER PAGE

q = Equipage size based on the physical drive.

For SCSI disks, the physical drive size is determined by reading the capacity of the disk from the disk drive itself. For SMD disks, the physical drive size is determined by reading the equipage value in the UCB record.

160MB — (SMD disk drive)
300MB — (SMD disk drive)
322MB — (SCSI disk drive)
340MB — (SMD disk drive)
600MB — (SCSI disk drive)
1000MB — (SCSI disk drive)
2000MB — (SCSI disk drive)
NAV — The DFC is not active,
or the SCSI device is inaccessible,
or the unit is reserved.

r = Equipage size based on the UCB equipage value.

The drive size is determined by reading the equipage value in the UCB record for the unit.

160MB — (SMD disk drive)
300MB — (SMD disk drive)
322MB — (SCSI disk drive)
340MB — (SMD disk drive)
600MB — (SCSI disk drive)
1000MB — (SCSI disk drive)
2000MB — (SCSI disk drive)
NAV — The DFC is not active,
or the unit is reserved.

s = Equipage size based on the VTOC.

The drive size is derived from the maximum capacity of the unit's VTOC.

160MB — (SMD disk drive)
300MB — (SMD disk drive)
322MB — (SCSI disk drive)
340MB — (SMD disk drive)
600MB — (SCSI disk drive)
1000MB — (SCSI disk drive)
2000MB — (SCSI disk drive)
NAV — The DFC is not active,
or the unit is reserved,
or the unit is inaccessible.

SEE PROPRIETARY NOTICE ON COVER PAGE

t = Sizes compatible.

YES — DRIVE, UCB, and VTOC equipage sizes are compatible.

NO — DRIVE, UCB, and VTOC equipage sizes are not compatible.

NAV — At least one of the equipage sizes are not available.

Equipage sizes are not compatible if the drive size is not equal to the UCB equipage size or if the drive size is smaller than the VTOC size.

Size comparisons are based on the formatted capacity of a disk drive. The formatted capacity of the LUCENT RTR-supported disk drives are as follows:

Drive	Formatted Capacity
160MB	133MB
300MB	253MB
322MB	322MB
340MB	277MB
600MB	604MB
1000MB	1000MB
2000MB	2000MB

u = Product identification.

NAV — The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.

data — Alphanumeric data representing the product identification of a SCSI device.

v = Revision level.

NAV — The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.

data — Alphanumeric data representing the revision level of the firmware in a SCSI device.

w = Serial number.

NAP — Not applicable for this device.

NAV — The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.

data — Alphanumeric data representing the serial number of a SCSI device.

SEE PROPRIETARY NOTICE ON COVER PAGE

x = SBUS unit number if the DFC is a SCSI device.

Unit Number — Logical unit number of the SCSI bus that is stored in the SBUS's UCB.

y = SCSI HA bus identification number: either 0 or 1.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered.

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

For Formats 5 and 6, if the drive equipage sizes are not compatible, verify the correctness of the UCB equipage value. If there is still an inconsistency, contact the next level of technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1 through 4 have an OMDB key of 153.
Format 5 has an OMDB key of 151.
Format 6 has an OMDB key of 572.

Output Appendix
`SYSERR-APP`

Input Messages
`OP:DFC;INFO`
`OP:MHD;INFO`

ID . . . . . OP-MT,INFO
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has five formats.

[1] `OP MT` *a* `INFO NOT STARTED` *b c*

[2] `OP MT` *a* `INFO STOPPED` *b c*

[3] `OP MT` *a* `INFO ERROR` *b c*

[4] `OP MT` *a* `INFO ABORTED` *b*

[5]
```
OP MT a INFO
CONTROLLER:  DFC d  STATUS: e
FIRMWARE VERSION: f
PUMPCODE VERSION: f

SBUS g  SCSI HA BUS h   STATUS: e

UNIT       DEVICE TYPE     DID STATUS RSVD
------ ----------------- --- ------ ----
MT  i     j     k  e  l
.
.
.
     PRODUCT       REV
UNIT     IDENTIFICATION  LEVEL    SERIAL NUMBER
------ --------------- ----- ------------------
MT  i     m      n      o
.
.
.
```

2. REASON FOR OUTPUT

To report the result of executing an `OP:MT;INFO` input message.

Format 5 is used to output data for a small computer system interface (SCSI) magnetic tape (MT) device.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

a = MT member number.

b = Process step or reason code.

- `f01` — failed to enable message reception
- `f03` — failed to open ECD
- `f06` — failed to get UCB by name
- `f08` — failed to get top UCB
- `f0a` — top UCB is not a DFC
- `f0c` — unknown DFC type
- `f0e` — failed to get UCB of SBUS
- `f11` — failed to assign special device file name for DFC
- `f14` — failed to open special device file for DFC
- `f17` — see DKDRV report on the ROP
- `f1a` — failed to close special device file
- `f1c` — failed to release special device file
- `f1f` — failed to unreserve DFC UCB
- `f23` — failed to get next UCB
- `f26` — failed to assign special device file name
- `f29` — failed to open special device file
- `f2c` — failed to set I/O mode of device file
- `f2f` — device size not recognized
- `f33` — see DKDRV report on the ROP
- `f36` — failed to close special device file
- `f37` — failed to release special device file
- `f38` — failed to unreserve device UCB
- `f3e` — message to port failure
- `f43` — message reception failure
- `f46` — process timed out
- `f49` — failed to close special device file
- `f4c` — failed to release special device file
- `f4f` — failed to unreserve UCB
- `f53` — failed to close ECD
- `f56` — terminated externally with signal

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

d = Member number of controller.

e = Major status of unit.

SEE PROPRIETARY NOTICE ON COVER PAGE

f = DFC firmware / pumpcode version.

NAV — The firmware or pumpcode versions are not available, or cannot be determined.

A.B.C — D

A = Version of DFC FIRMWARE/PUMPCODE.
B = Issue of DFC FIRMWARE/PUMPCODE.
C = Point issue of DFC FIRMWARE/PUMPCODE.
D = Laboratory design issue (LDI) of DFC FIRMWARE/PUMPCODE.

g = SBUS unit number.

Unit Number — Logical unit number of the SCSI bus that is stored in the SBUS's UCB.

h = SCSI HA bus identification number, either 0 or 1.

i = Unit number.

j = Device type.

k = Device ID (drive ID number).

l = Unit reserved.

YES — Unit is reserved for maintenance activity.

NO — Unit is not reserved.

m = Product identification.

NAP — Not applicable for this device.

n = Revision level.

NAV — The DFC or the SBUS is not active,
or the unit is reserved,
or the SCSI device is inaccessible.

data — Alphanumeric data representing the revision level of the firmware in an SCSI device.

o = Serial number.

NAP — Not applicable for this device.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered.

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1 through 4 have an OMDB key of 153.
Format 5 has an OMDB key of 695.

Output Appendix
`SYSERR-APP`

Input Messages
`OP:DFC;INFO`
`OP:MHD;INFO`
`OP:MT;INFO`

ID . . . . . OP-OFL
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . XUNIT,MAINT

1. FORMAT

This message has eight formats.

[1]
```
OP OFL MESSAGE STARTED
UNIT        MTCE   INH   DGN
a b[c d] e   f   g
```

[2]
```
OP OFL COMPLETED
```

[3]
```
OP OFL INTERFACE ERROR, ERRNO=h
```

[4]
```
OP OFL NOT STARTED
INVALID DATA FIELD
```

[5]
```
OP OFL NOT STARTED
RETRY LATER
```

[6]
```
OP OFL IN PROGRESS
a b[c d] e   f   g
```

[7]
```
OP OFL RETRY LATER i
```

[8]
```
OP OFL WRITE TO j
FAILED ON KEY #k
```

2. REASON FOR OUTPUT

To give device information specific to computer hardware units on communities requested via the OP:OFL input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

3. VARIABLE FIELD DEFINITIONS

a = Unit name. Computer unit names are listed in the Member Numbers Appendix, Table C, MEM-NUM-APPC.

b = Unit number. See the Member Numbers Appendix, Table C MEM-NUM-APPC.

c = Subunit name, if *a* = CU. Computer CU subunit names are listed in Member Numbers Appendix, Table D MEM-NUM-APPD.

SEE PROPRIETARY NOTICE ON COVER PAGE

d = Subunit number. See the Member Numbers Appendix, Table C MEM-NUM-APPC.

e = The current maintenance state of the unit is indicated by the following identifiers.

ACT — Active units.
GROW — Units being grown.
INIT — Initializing units.
OFL — Offline units.
OOS — Out-of-service units.
STBY — Standby units.
UNAV — Unavailable units.
UNEQIP — Unequipped units.

f = Indicates the current inhibit status of the associated error source.

ALW — Allowed.
INH — Inhibited.

g = Results of the last diagnostic on the unit.

ABT — Aborted diagnostics.
ATP — All tests passed.
CATP — Conditional all tests passed.
NTR — No tests were run.
STF — Some test failed.

h = Error number.

9 — cannot attach to plant measurement library
11 — cannot open equipment configuration database (ECD) sequence
12 — cannot sequence unit control blocks (UCBs)

i = Retry the command later for the following reasons.

```
CANNOT SEQUENCE DATABASE
CANNOT CREATE FILE IN /tmp
CANNOT GET DATABASE RECORD ID
```

j = Temporary output file name.

k = Key associated with write failure.

4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated. Action may or may not be required.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 49 and 477.
Format 2 has OMDB keys of 50 and 478.
Format 3 has OMDB keys of 51 and 479.
Format 6 has OMDB keys of 580 and 582.
Format 7 has OMDB keys of 588 and 589.
Format 8 has an OMDB key of 656.

Appendixes

MEM-NUM-APPC
MEM-NUM-APPD

Input Messages

OP:ACT
OP:CFGSTAT
OP:GROW
OP:INIT
OP:OFL
OP:OOS
OP:STBY
OP:UNAV
OP:UNEQIP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . OP-OMDB-A
GENERIC . . . . . UNIX RTR R1.5, R6.4, and R21.3
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `OP OMDB COMPLETED`

[2]
```
OP OMDB NO DATABASE ENTRY FOUND FOR THE
FOLLOWING KEYS:
  b
```

[3]
```
OP OMDB FAILED
UNABLE TO ACCESS /cft/spl/omdb
```

[4] `OP OMDB FAILED`

[5]
```
OP OMDB ABORTED
UNABLE TO CREATE TEMP FILE
```

[6]
```
OP OMDB a
KEY    MSG_CLASS   ALARM   TEXT
c      d     e     f
```

[7]
```
OP OMDB ABORTED
UNABLE TO SEND REQUEST TO CSOP
```

[8]
```
OP OMDB NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS g
```

2. REASON FOR OUTPUT

To report the result of executing an `OP:OMDB` input message.

3. VARIABLE FIELD DEFINITIONS

a = `DISK` for OMDB disk file or `ACT` for active OMDB.

b = List of message keys for which the `OP:OMDB` failed.

c = Message key that was requested. There will be one line in the report for each key requested.

d = Numeric value of the message class associated with the message for the message key in *c*.

e = Alarm level (`CRIT, MAJ, MIN, MAN, ACT, INFO, VAR`) associated with the message for the message key in *c*.

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f = Up to 40 characters of the text associated with the message for the message key in *c*. The text shown in this report may include "%" characters. These characters indicate that variable data will be passed by the requesting process when this message is to be formatted and spooled.

g = Further explanation of error: `SYNTAX ERROR, INVALID OMDB COPY, INVALID KEY, TOO MANY KEYS`.

4. ACTION TO BE TAKEN

Format 1 indicates success.

For format 2, verify that the key(s) was entered correctly.

For format 3, determine if the disk is available. If the disk is available, verify the status of the OMDB disk file by using the `OP:STATUS;LISTDIR` command for `/cft/spl/omdb`.

For format 4, verify that the OMDB disk file (`/cft/spl/omdb`) is there. If the file is there, run the `ACTV:OMDB` command. If that does not solve the problem, attempt a craft initialization. If the file is not on the disk, restore the file and then run `ACTV:OMDB`.

Format 5 indicates a possible file system problem, such as lack of available disk space.

Format 6 indicates successful execution of the command.

For format 7, verify that the craft output spooler (CSOP) is running.

For format 8, verify that the input message was entered correctly.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 5.
Format 2 has an OMDB key of 7.
Format 5 has an OMDB key of 10.
Format 6 has an OMDB key of 6.
Format 7 has an OMDB key of 118.

Input Messages
`ACTV:OMDB`
`OP:OMDB`
`OP:ST;LSTDIR`
`UPD:OMDB`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . OP-OMDB-B
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `OP OMDB COMPLETED`

[2]
```
OP OMDB NO DATABASE ENTRY FOUND FOR THE
FOLLOWING KEYS:
  b
```

[3]
```
OP OMDB FAILED
UNABLE TO ACCESS /cft/spl/omdb
```

[4] `OP OMDB FAILED`

[5]
```
OP OMDB ABORTED
UNABLE TO CREATE TEMP FILE
```

[6]
```
OP OMDB a
KEY    MSG_CLASS   ALARM   TEXT
c      d     e     f
```

[7]
```
OP OMDB ABORTED
UNABLE TO SEND REQUEST TO CSOP
```

[8]
```
OP OMDB NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS g
```

2. REASON FOR OUTPUT

To report the result of executing an `OP:OMDB` input message.

3. VARIABLE FIELD DEFINITIONS

a = `DISK` for OMDB disk file or `ACT` for active OMDB.

b = List of message keys for which the `OP:OMDB` failed.

c = Message key that was requested. There will be one line in the report for each key requested.

d = Numeric value of the message class associated with the message for the message key in *c*.

e = Alarm level (CRIT, MAJ, MIN, MAN, ACT, INFO, VAR) associated with the message for the message key in *c*.

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f = Up to 40 characters of the text associated with the message for the message key in *c*. The text shown in this report may include "%" characters. These characters indicate that variable data will be passed by the requesting process when this message is to be formatted and spooled.

g = Further explanation of error: `SYNTAX ERROR, INVALID OMDB COPY, INVALID KEY, TOO MANY KEYS`.

4. ACTION TO BE TAKEN

Format 1 indicates success.

For format 2, verify that the key(s) was entered correctly.

For format 3, determine if the disk is available. If the disk is available, verify the status of the OMDB disk file by using the `OP:STATUS;LISTDIR` command for `/cft/spl/omdb`.

For format 4, verify that the OMDB disk file (`/cft/spl/omdb`) is there. If the file is there, run the `ACTV:OMDB` command. If that does not solve the problem, attempt a craft initialization. If the file is not on the disk, restore the file and then run `ACTV:OMDB`.

Format 5 indicates a possible file system problem, such as lack of available disk space.

Format 6 indicates successful execution of the command.

For format 7, verify that the craft output spooler (CSOP) is running.

For format 8, verify that the input message was entered correctly.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 5.
Format 2 has an OMDB key of 7.
Format 5 has an OMDB key of 10.
Format 6 has an OMDB key of 6.
Format 7 has an OMDB key of 118.

Input Messages
`ACTV:OMDB`
`OP:OMDB`
`OP:ST;LSTDIR`
`UPD:OMDB`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . OP-OOS
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . XUNIT,MAINT

1. FORMAT

This message has eight formats.

[1]
```
OP OOS MESSAGE STARTED
UNIT        MTCE   INH   DGN
a b[c d] e   f   g
```

[2]
```
OP OOS COMPLETED
```

[3]
```
OP OOS INTERFACE ERROR, ERRNO=h
```

[4]
```
OP OOS NOT STARTED
INVALID DATA FIELD
```

[5]
```
OP OOS NOT STARTED
RETRY LATER
```

[6]
```
OP OOS IN PROGRESS
a b[c d] e   f   g
```

[7]
```
OP OOS RETRY LATER i
```

[8]
```
OP OOS WRITE TO j
FAILED ON KEY #k
```

2. REASON FOR OUTPUT

To give device information specific to computer hardware units on communities requested via the OP:OOS input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

3. VARIABLE FIELD DEFINITIONS

a = Unit name. AM unit names are listed in the Member Numbers Appendix, MEM-NUM-APPC, Table C.

b = Unit number. See the Member Numbers Appendix, MEM-NUM-APPC, Table C.

c = Subunit name, if *a* = CU. Computer control unit (CU) subunit names are listed in the Member Numbers Appendix, MEM-NUM-APPD,

Table D.

d = Subunit number. See the Member Numbers Appendix, MEM-NUM-APPC, Table C.

e = The current maintenance state of the unit is indicated by the following identifiers.

ACT — Active units.
GROW — Units being grown.
INIT — Initializing units.
OFL — Offline units.
OOS — Out-of-service units.
STBY — Standby units.
UNAV — Unavailable units.
UNEQIP — Unequipped units.

f = Unit status.

ALW — Allowed.
INH — Inhibited.

g = Result of the last diagnostic on the unit.

ABT — Aborted diagnostics.
ATP — All tests passed.
CATP — Conditional all tests passed.
NTR — No tests were run.
STF — Some test failed.

h = Error number.

9 — cannot attach to plant measurement library
11 — cannot open equipment configuration database (ECD) sequence
12 — cannot sequence unit control blocks (UCBs)

i = Retry the command later for the following reasons.

```
CANNOT SEQUENCE DATABASE
CANNOT CREATE FILE IN /tmp
CANNOT GET DATABASE RECORD ID
```

j = Temporary output file name.

k = Key associated with write failure.

4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated. Action may or may not be required.

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6. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 49 and 477.
Format 2 has OMDB keys of 50 and 478.
Format 3 has OMDB keys of 51 and 479.
Format 6 has OMDB keys of 580 and 582.
Format 7 has OMDB keys of 588 and 589.
Format 8 has an OMDB key of 656.

Appendixes

`MEM-NUM-APPC`
`MEM-NUM-APPD`

Input Messages

`OP:ACT`
`OP:CFGSTAT`
`OP:GROW`
`OP:INIT`
`OP:OFL`
`OP:OOS`
`OP:STBY`
`OP:UNAV`
`OP:UNEQIP`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . OP-PMCR-A
GENERIC . . . . . UNIX RTR R1.5, R6.4 and R21.3
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`OP PMCR ERROR` *a*[`,ERRNO =` *b*]

2. REASON FOR OUTPUT

To report errors encountered during the execution of the processes which comprise the plant measurements common report (PMCR) capability.

3. VARIABLE FIELD DEFINITIONS

a = Four-digit error code. This code consists of a one-digit number which indicates the PMCR process in which the error was detected, a two-digit number which indicates the error type, and a one-digit number which shows the location of the error within the specific process. The last digit is necessary for field support and is only used by developers. Therefore, all possible values and their meanings are not documented.

Process values (first digit) are as follows:

`1` — PMCR craft interface
`2` — PMCR manager
`3` — PMCR collector
`4` — PMCR report generator

Error-type values (second and third digits) are as follows:

`00` — user is not allowed to request scheduled report
This message comes from PMCR craft interface as `ERROR` 1001.
`01` — could not connect to system port
`02` — could not send or receive message
`03` — failed `plib` call
`04` — failed `pl_init` call
`05` — failed `pl_attrec` call
`06` — failed `pl_update` call
`07` — failed `pl_read` call
`08` — failed `lla_iatt` call
`09` — failed `lla_irel` call
`10` — failed `lla_rdget` call
`11` — failed `lla_opensq` call
`12` — failed `lla_nextseq` call
`13` — could not execute PMCR collector or PMCR report generator
`14` — could not get ECD segments
`15` — could not get reporting office name from ECD

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16 — Computation of maintenance usage time for the specified unit resulted in a time greater than 86,400 seconds (one day), or in a negative value.
17 — bad arguments received by PMCR report generator
18 — spool error during output of report
19 — No data has been collected to output a retained/demand report. Requesting a daily retained report should not be attempted until after a scheduled daily report has been generated. Requesting an hourly retained report should not be attempted until after a scheduled hourly report has been generated. Demand reports should not be attempted until at least one hour after a valid scheduled daily report has been generated.
22 — PMDB initialization time reset to current time
23 — start time reset to 0
24 — start time reset to current time
25 — change reason for start time and reset start time to 0
26 — start time reset to top unit start time
27 — change reason for start time to top unit reason and reset start time to top unit start time
28 — hour limit exceeded - time reset to one hour
29 — negative time count time reset to 0
30 — day limit exceeded - time reset to one day
31 — The current value (for example, alarm count) is less than count recorded from previous hour, or previous count was invalid.
32 — open of `/etc/log/pmcrlog` file failed
33 — could not execute pmdbcopy
34 — Unrecognized UCB status
35 — failed `malloc` call.
36 — failed `lla_gtrid` call.
37 — Plant Measurements audit record deleted.

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38 — Bad arguments supplied to pmcrman via the "PMCRMAN" ULARP form. There should be no more than two arguments to pmcrman. The arguments should be a number (0-23) indicating the time the daily reports should be generated and/or "NEF". "NEF" is used by 5E International which uses the eaiopt fields differently than expected.

Process location value (fourth digit). Possible values and meanings are not documented because this digit is necessary for field support and is only used by developers.

b = Error code returned by the failing function call.

If *a* = x01x, x02x, x03x, x13x, x14x, x15x, x16x, x181, or x182, see the System Error Codes Output Appendix, SYSERR-APP.

If *a* = x04x, x05x, x06x, or x07x, *b* is the plant measurements error code number.

If *a* = x17x or x183, *b* is the value of the bad arguments passed to the function or process.

If *a* = x34x, *b* is the invalid UCB status.

If *a* = x37x, *b* is the deleted audit record.

If *a* = x08x, x09x, x10x, x11x, x12x, x19x, x35x, x36x, x37x, or x38x *b* does not specify an error code.

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4. ACTION TO BE TAKEN

For error messages 22 through 31, see `/etc/log/pmcrlog` for record name information. These error messages indicate that the count or time for the unit may not be valid. Since these errors are corrected by pmcrman, they are for information only and require no further action. Some of these errors may be seen at boot time or after stopping off line boot (OFLBOOT).

The log file (`/etc/log/pmcrlog`) is reset each time a scheduled report runs.

For all other errors, the table below shows the action to be taken based on error code *a*. In all instances, seek technical assistance if the error persists.

Table 1. Error Codes

If *a* =	Action To Be Taken
x00x	Request output of scheduled reports to be turned on by using `OP:PMCR;TYPE STAT` command. Then scheduled hourly reports will be printed at the end of the hour, and daily at the end of the day.
x01x	Check port 27, using the `OP:STATUS;PORTS` input message, to see if another process has control of the port.
x02x	Check that the correct `OP:PMCR` input message was entered. Request output of scheduled reports to be turned on by using `OP:PMCR`.
x03x - x07x	Check the usability of the plant measurements database.
x08x - x12x	Check the usability of the ECD.
x13x	Check the usability of the PMCR processes.

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Table 1. Error Codes *(continued)*

If *a* =	Action To Be Taken
x14x - x15x	Check the usability of the ECD.
x16x	Check system clock versus last clean report.
x17x	Check that the correct `OP:PMCR` input message was entered.
x18x - x19x	No action can be taken.
x32x	Check that the `/etc/log/` *directory* has read/write/search permission, that the `etc/log/pmcrlog` file (if it exists) has write permission, and that free blocks and i-nodes are available on the file system.
x33x	Check that the `/prc/pmdbcopy` file exists and is executable.
x34x - x35x	Seek technical assistance if the error persists.
x36x	Check the usability of the ECD.
x37x	No action to be taken.
x38x	Check the "PMCRMAN" ULARP form to ensure the arguments are correct. Seek technical assistance if necessary.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key
This message has an OMDB key of 213.

Output Appendix
`SYSERR-APP`

Input Messages
`OP:PMCR`
`OP:ST;PORTS`

Output Message
`REPT-OP,PMCR`

ID . . . . . OP-PMCR-B
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

[1] `OP PMCR ERROR` *a*`[,ERRNO =` *b*`]`

[2] `OP PMCR INFO` *a*

2. REASON FOR OUTPUT

To report errors encountered during the execution of the processes which comprise the plant measurements common report (PMCR) capability.

3. VARIABLE FIELD DEFINITIONS

a = Four-digit error code. This code consists of a one-digit number which indicates the PMCR process in which the error was detected, a two-digit number which indicates the error type, and a one-digit number which shows the location of the error within the specific process. The last digit is necessary for field support and is only used by developers. Therefore, all possible values and their meanings are not documented.

Process values (first digit) are as follows:

`1` — PMCR craft interface
`2` — PMCR manager
`3` — PMCR collector
`4` — PMCR report generator

Error-type values (second and third digits) are as follows:

`00` — user is not allowed to request scheduled report
This message comes from PMCR craft interface as `ERROR` 1001.
`01` — could not connect to system port
`02` — could not send or receive message
`03` — failed `plib` call
`04` — failed `pl_init` call
`05` — failed `pl_attrec` call

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06 — failed `pl_update` call
07 — failed `pl_read` call
08 — failed `lla_iatt` call
09 — failed `lla_irel` call
10 — failed `lla_rdget` call
11 — failed `lla_opensq` call
12 — failed `lla_nextseq` call
13 — could not execute PMCR collector or PMCR report generator
14 — could not get ECD segments
15 — could not get reporting office name from ECD
16 — Computation of maintenance usage time for the specified unit resulted in a time greater than 86,400 seconds (one day), or in a negative value.
17 — bad arguments received by PMCR report generator
18 — spool error during output of report
19 — No data has been collected to output a retained/demand report. Requesting a daily retained report should not be attempted until after a scheduled daily report has been generated. Requesting an hourly retained report should not be attempted until after a scheduled hourly report has been generated. Demand reports should not be attempted until at least one hour after a valid scheduled daily report has been generated.
22 — PMDB initialization time reset to current time
23 — start time reset to 0
24 — start time reset to current time
25 — change reason for start time and reset start time to 0
26 — start time reset to top unit start time
27 — change reason for start time to top unit reason and reset start time to top unit start time
28 — hour limit exceeded - time reset to one hour
29 — negative time count time reset to 0
30 — day limit exceeded - time reset to one day
31 — The current value (for example, alarm count) is less than count recorded from previous hour, or previous count was invalid.
32 — open of `/etc/log/pmcrlog` file failed
33 — could not execute pmdbcopy
34 — Unrecognized UCB status
35 — failed `malloc` call.
36 — failed `lla_gtrid` call.
37 — Plant Measurements audit record deleted.

SEE PROPRIETARY NOTICE ON COVER PAGE

38 — Bad arguments supplied to pmcrman via the "PMCRMAN" ULARP form. There should be no more than two arguments to pmcrman. The arguments should be a number (0-23) indicating the time the daily reports should be generated and/or "NEF". "NEF" is used by 5E International which uses the eaiopt fields differently than expected.

Process location value (fourth digit). Possible values and meanings are not documented because this digit is necessary for field support and is only used by developers.

b = Error code returned by the failing function call.

If *a* = x01x, x02x, x03x, x13x, x14x, x15x, x16x, x181, or x182, see the System Error Codes Output Appendix, SYSERR-APP.

If *a* = x04x, x05x, x06x, or x07x, *b* is the plant measurements error code number.

If *a* = x17x or x183, *b* is the value of the bad arguments passed to the function or process.

If *a* = x34x, *b* is the invalid UCB status.

If *a* = x37x, *b* is the deleted audit record.

If *a* = x08x, x09x, x10x, x11x, x12x, x19x, x35x, x36x, x37x, or x38x *b* does not specify an error code.

4. ACTION TO BE TAKEN

For error messages 22 through 31, see `/etc/log/pmcrlog` for record name information. These error messages indicate that the count or time for the unit may not be valid. Since these errors are corrected by pmcrman, they are for information only and require no further action. Some of these errors may be seen at boot time or after stopping off line boot (OFLBOOT).

The log file (`/etc/log/pmcrlog`) is reset each time a scheduled report runs.

For all other errors, the table below shows the action to be taken based on error code *a*. In all instances, seek technical assistance if the error persists.

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Table 1. Error Codes

If *a* =	Action To Be Taken
x00x	Request output of scheduled reports to be turned on by using `OP:PMCR;TYPE STAT` command. Then scheduled hourly reports will be printed at the end of the hour, and daily at the end of the day.
x01x	Check port 27, using the `OP:STATUS;PORTS` input message, to see if another process has control of the port.
x02x	Check that the correct `OP:PMCR` input message was entered. Request output of scheduled reports to be turned on by using `OP:PMCR`.
x03x - x07x	Check the usability of the plant measurements database.
x08x - x12x	Check the usability of the ECD.
x13x	Check the usability of the PMCR processes.
x14x - x15x	Check the usability of the ECD.
x16x	Check system clock versus last clean report.
x17x	Check that the correct `OP:PMCR` input message was entered.
x18x - x19x	No action can be taken.
x32x	Check that the `/etc/log/` *directory* has read/write/search permission, that the `etc/log/pmcrlog` file (if it exists) has write permission, and that free blocks and i-nodes are available on the file system.
x33x	Check that the `/prc/pmdbcopy` file exists and is executable.
x34x - x35x	Seek technical assistance if the error persists.

Table 1. Error Codes *(continued)*

If *a* =	Action To Be Taken
x36x	Check the usability of the ECD.
x37x	No action to be taken.
x38x	Check the "PMCRMAN" ULARP form to ensure the arguments are correct. Seek technical assistance if necessary.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key
Format 1 has an OMDB key of 213.
Format 2 has an OMDB key of 319.

Output Appendix
`SYSERR-APP`

Input Messages
`OP:PMCR`
`OP:ST;PORTS`

Output Message
`REPT-OP,PMCR`

ID . . . . . OP-REXINH-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . XUNIT,MAINT

1. FORMAT

This message has five formats.

[1] `OP REXINH` *a*
b `REX INHIBITED UNITS`[:]
c d

[2] `OP REXINH CANNOT OPEN` *e*

[3] `OP REXINH NOT STARTED`
`INVALID DATA FIELD`

[4] `OP REXINH NOT STARTED`
`RETRY LATER`

[5] `OP REXINH CANNOT WRITE TO` *e*
`WITH MESSAGE FROM KEY #` *f*

2. REASON FOR OUTPUT

Format 1 is printed in response to an `OP:REXINH` input message. This message reports the hardware communities for which routine exercises are currently inhibited. The `INH:REX` input message inhibits routine exercises from hardware communities. The `INH:DMQ` input message can inhibit honoring routine exercise process maintenance requests. DMQ inhibits may be verified by using the `OP:DMQ` input message.

Format 2 could not open temporary file used for sending report data to CSOP - no report is generated.

3. VARIABLE FIELD DEFINITIONS

a = `COMPLETED` if entire report has been processed. The last lines of the report follow the `COMPLETED` message. `IN PROGRESS` if the report has not yet been completed.

b = `NO` if no `REX` inhibited hardware communities are found in the ECD. If this field is `NO`, then the optional colon at the end of the text is not generated. If `REX` inhibited hardware communities are found in the ECD, then this field is empty and the optional colon is generated followed by a list of the `REX` inhibited hardware communities.

c = Unit name.

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d = Unit number.

e = Temporary output file name.

f = Key associated with write failure.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This alarm is either a manually-requested report, or an automatically-generated report that is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 24.
Format 2 has an OMDB key of 25.
Format 3 has an OMDB key of 650.

Input Messages
```
ALW:DMQ
ALW:REX
INH:DMQ
INH:REX
OP:DMQ
OP:REXINH
```

Output Message
```
OP-DMQ
```

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ID . . . . . OP-REXINH-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . XUNIT,MAINT

1. FORMAT

This message has five formats.

[1] `OP REXINH` *a*
[*b*] `REX INHIBITS`
[*c d*]
. .
. .
. .
`[REX INHIBITED IN DMQ |`
`REX DMQ STATUS NOT AVAILABLE]`

[2] `OP REXINH CANNOT OPEN` *e*

[3] `OP REXINH NOT STARTED`
`INVALID DATA FIELD`

[4] `OP REXINH NOT STARTED`
`RETRY LATER`

[5] `OP REXINH CANNOT WRITE TO` *e*
`WITH MESSAGE FROM KEY #` *f*

2. REASON FOR OUTPUT

Format 1 is printed in response to an `OP:REXINH` input message. This message reports either the temporary routine exercise inhibits or the permanent routine exercise inhibits if the `PERM` option was specified on the input message. The `INH:REX` input message temporarily inhibits routine exercises from hardware communities. The `INH:DMQ` input message can temporarily inhibit honoring routine exercise process maintenance requests. This message reports if routine exercises are inhibited in the DMQ or if the DMQ cannot be accessed as part of temporary routine exercise inhibits. DMQ inhibits may be verified by using the `OP:DMQ` input message. Permanent routine exercise inhibits are established for hardware communities by a field in the ECD.

Format 2 could not open temporary file used for sending report data to CSOP - no report is generated.

3. VARIABLE FIELD DEFINITIONS

a = `COMPLETED` if entire report has been processed. The last lines of the report follow the `COMPLETED` message. `IN PROGRESS` if the report has not yet been completed.

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b = This field is empty if there are temporary REX inhibited hardware communities or REX is inhibited in the DMQ, followed by a list of the temporary REX inhibits. NO if there are no temporary REX inhibited hardware communities and REX is not inhibited in the DMQ.

When the PERM option is specified on the OP:REXINH input message: PERMANENT if there are permanent REX inhibited hardware communities, followed by a list of the permanent REX inhibited hardware communities. NO PERMANENT if there are no permanent REX inhibited hardware communities.

c = Unit name.

d = Unit number.

e = Temporary output file name.

f = Key associated with write failure.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This alarm is either a manually-requested report, or an automatically-generated report that is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 24.
Format 2 has an OMDB key of 25.
Format 3 has an OMDB key of 650.

Input Messages
ALW:DMQ
ALW:REX
INH:DMQ
INH:REX
OP:DMQ
OP:REXINH

Output Message
OP-DMQ

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . OP-SCSD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `OP SCSD UNIT` *a*
`INHIBIT:` *ccccccccc ccccccccc ccccccccc ccccccccc ccccccccc ccccccccc*
`SCAN PT:` *ddddddddd ddddddddd ddddddddd ddddddddd ddddddddd ddddddddd*
`OP SCSD UNIT` *a b*

[2] `OP SCSD GRPN` *e*
`DUPID` *f*
`INHIBIT:` [*ccc*]
`SCAN PT:` [*ddd*]
`OP SCSD GRPN` *e b*

[3] `OP SCSD NOT STARTED`
`CONFLICT WITH CURRENT SYSTEM STATUS`

2. REASON FOR OUTPUT

To indicate the state and the inhibit status of the scan points on a scanner and signal distributor (SCSD) unit.

Format 1 is used to display the entire SCSD scan map for a unit.

Format 2 is used to display the scan state for a particular logical group.

Format 3 indicates the SCSD administration process is not active. No communication with SCSD points is possible.

3. VARIABLE FIELD DEFINITIONS

a = Member number of SCSD unit.

b = Termination status.

FAILED — Action could not be completed by SCSD administrator.

Possible reasons for failure are:

— SCSD unit number is invalid.

— Point number is invalid for the logical group.

— Logical group name is invalid and either the SCSD unit is out-of-service (OOS) or is in an inactive state to the SCSD administrator.

SEE PROPRIETARY NOTICE ON COVER PAGE

COMPLETED — Action completed.

c = Inhibit status. (Scan points are numbered 0 - 47 starting from the left) One of the following.

0 — Scan point is not inhibited.
1 — Scan point is inhibited.

d = Scan point status. (Scan points are numbered 0 - 47 starting from the left) One of the following.

0 — Scan point is clear (open).
1 — Scan point is set (closed).

e = Logical group name.

f = Duplex group ID (0 or 1).

4. ACTION TO BE TAKEN

Issue the OP:OOS input message to determine if the SCSD unit is listed as out-of-service. Otherwise, enter recent change and verify (RC/V) to verify input message arguments.

If logical addressing is used, check that the logical group name exists and/or the point number is contained in the logical group. If physical addressing is used, verify that the SCSD unit is equipped.

If the above results are negative, seek technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 158.
Format 2 has an OMDB key of 157.

Input Messages
OP:OOS
OP:SCSD

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . OP-ST;DISKUSE
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `OP STATUS DISKUSE COMPLETED`
a b

[2] `OP STATUS DISKUSE STOPPED`
c `DOES NOT EXIST`

[3] `OP STATUS DISKUSE STOPPED`
`TOTAL OR EACH MUST BE SPECIFIED`
`IF FN IS A FILE`

[4] `OP STATUS DISKUSE STOPPED`
d

2. REASON FOR OUTPUT

To report the result of executing an `OP:STATUS;DISKUSE` input message.

3. VARIABLE FIELD DEFINITIONS

a = The total number of blocks in the directory or file is printed. Block size is 512 bytes.

b = Pathname of file specified in the input message.

c = Pathname of the directory which does not exist.

d = Text explaining why the command was stopped.

4. ACTION TO BE TAKEN

Use the `OP:STATUS;LISTDIR` input message to check the status of the file if `bad status` is printed. (This message implies that the file does not exist.)

Use the `CLR:FILESYS;FILE` input message to remove some files or the `COPY:FILESYS;FILE` input message to copy some files to another directory if `Huge directory` is printed.

Seek technical assistance if a `cannot open` or `cannot read` message is printed.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 282.
Formats 2 and 3 have an OMDB key of 281.
Format 4 has an OMDB key of 288.

Input Messages

```
CLR:F;FILE
COPY:F;FILE
OP:ST;DISKUSE
OP:ST;LSTDIR
OP:ST;SUM
```

Output Messages

```
OP-ST,LSTDIR
OP-ST,SUM
```

ID . . . . . OP-ST,FILESYS
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

[1] `OP STATUS FILESYS COMPLETED`
a `ON` *b c* `ON` *d e f g h i j*

2. REASON FOR OUTPUT

To output information about all the mounted file systems requested by the `OP:STATUS;FILESYS` input message.

3. VARIABLE FIELD DEFINITIONS

a = The directory name on which the file system is mounted.

b = File system; for example, `/dev/mt08`.

c = Permission; for example, read / write.

d = Abbreviated form of day of the week.

e = Abbreviated form of month.

f = Day of the month (00 - 31).

g = Hour (00 - 23).

h = Minute (00 - 59).

i = Second (00 - 59).

j = Year (00 - 99).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 282.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
ALW:F;MOUNT
INH:F;UMOUNT
OP:ST;FILESYS
```

Output Message

```
INH-F,UMOUNT
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

ID . . . . . OP-ST,FRDISK
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `OP STATUS FREEDISK {STARTED | IN PROGRESS | COMPLETED}`
a b c `BLOCKS` *d* `I-NODES`

[2] `OP STATUS FREEDISK STOPPED`
`cannot open` *e* `|`
`cannot stat` *e* `|`
e `not a block device |`
e `not a file system`

2. REASON FOR OUTPUT

To respond to the `OP:STATUS;FREEDISK` input message to print out the number of free blocks and free i-nodes available for on-line file system.

Format 1 prints when the input message is being executed or is successfully completed.

Format 2 prints when the input message is stopped by an error condition.

NOTE: `STARTED`, `IN PROGRESS` and `COMPLETED` messages appear when three or more output segments are printed.

`STARTED` and `COMPLETED` messages appear when two output segments are printed.

A `COMPLETED` message appears when only one output segment is printed.

3. VARIABLE FIELD DEFINITIONS

a = Mounted directory name.

b = Device name.

c = Number of free blocks.

d = Number of free inodes.

e = Pathname specified in the input message.

4. ACTION TO BE TAKEN

Refer to the *Input Messages Manual* for the correct format and reenter the message or check the status of the file using the `OP:STATUS;LISTDIR` input message if `cannot open` printed.

Seek technical assistance if `cannot stat` or any other error message is printed.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 288.

Input Messages
```
ALW:F;MOUNT
OP:ST;FRDISK
OP:ST;FILESYS
OP:ST;LSTDIR
```

Output Messages
```
OP-ST,FILESYS
OP-ST,LSTDIR
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . OP-ST,LSTDIR
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `OP STATUS LISTDIR {STARTED|IN PROGRESS|COMPLETED}`
`[Total`*a*`]`
b c d e f g h i

[2] `OP STATUS LISTDIR STOPPED`
j `not found |`
`unreadable |`
`too many files |`
`out of memory`

2. REASON FOR OUTPUT

To report the result of executing an `OP:STATUS;LISTDIR` input command to list the contents of the file.

NOTE: `STARTED`, `IN PROGRESS` and `COMPLETED` messages appear when three or more output segments are printed.

`STARTED` and `COMPLETED` messages appear when two output segments are printed.

A `COMPLETED` message appears when only one output segment is printed.

3. VARIABLE FIELD DEFINITIONS

a = Size in blocks. Printed only on `STARTED` or `COMPLETED` messages.

b = Size in blocks.

c = Type of file. One of the following:

`d` — Directory
`b` — Block
`c` — Character
`p` — FIFO
`-` — Ordinary

d = Permissions. (For example, `RWX` = read, write and execute.)

e = Number of links.

f = Owner.

g = Size, specified in bytes.

h = Current modification time.

i = Filename.

j = Pathname specified in the input command.

4. ACTION TO BE TAKEN

Refer to the *Input Message Manual* for the correct format and reenter the command if `not found` is printed.

Seek technical assistance if any other error message is printed.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 282.

Input Messages

```
ALW:F;ACCESS
OP:ST;LSTDIR
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . OP-ST,PORTS
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `OP STATUS PORTS {STARTED|IN PROGRESS|COMPLETED}`
`port` *a* `owner by` *b*

[2] `OP STATUS PORTS STOPPED`

2. REASON FOR OUTPUT

To respond to an `OP:STATUS;PORTS` input message to output the status of each connected port.

NOTE: `STARTED`, `IN PROGRESS` and `COMPLETED` messages appear when three or more output segments are printed.

`STARTED` and `COMPLETED` messages appear when two output segments are printed.

A `COMPLETED` message appears when only one output segment is printed.

3. VARIABLE FIELD DEFINITIONS

a = Port number.

b = Process identification (ID) of the process connected to the port.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 282.

Input Message
`OP:STATUS;PORTS`

ID . . . . . OP-ST,PROC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1]
```
OP STATUS PROCESS {STARTED|IN PROGRESS|COMPLETED}
PSTAT PRI KTIME KPTIM STIME TTY PID UTID SIZE SLEEP CMD
 a  b  c  d  e  f  g  h  i  j  k
```

[2]
```
OP STATUS PROCESS {STARTED|IN PROGRESS|COMPLETED}
PSTAT PRI TOUT RTOUT EVENTS CHAN PID ADDR DCT ID DEVICE
 a  l  m  n  o  p  g  q  r  h  s

PSTAT PRI KTIME KPTIM STIME TTY PID UTID SIZE SLEEP CMD
 a  b  c  d  e  f  g  h  i  j  k
```

[3]
```
OP STATUS PROCESS {STARTED|IN PROGRESS|COMPLETED}
PPID    TTY    PID    CMD
 t  f  g  k
```

[4]
```
OP STATUS PROCESS STOPPED
no /dev/pmem |
can't open /dev/kmem |
can't open swap device: swapdev |
can't open /dmrt/kprc |
out of memory
read error on /dmrt/kprc |
warning: can't stat /dmrt/kprc |
read error /dev/kmem |
bad read |
read error
internal error |
bad input line: badline |
internal table exhausted
```

2. REASON FOR OUTPUT

To output the status of one or more active processes.

Format 1 prints when ALL or ALLTERMS was specified in the input message.

Format 2 prints when ALLKERNS was specified in the input message.

Format 3 prints when PATH was specified in the input command.

SEE PROPRIETARY NOTICE ON COVER PAGE

NOTE: `STARTED`, `IN PROGRESS` and `COMPLETED` messages appear when three or more output segments are printed.

`STARTED` and `COMPLETED` messages appear when two output segments are printed.

A `COMPLETED` message appears when only one output segment is printed.

3. VARIABLE FIELD DEFINITIONS

a = Process status flags (in hexadecimal notation).

b = Current priority of the process (in decimal notation).

c = Time spent in the kernel in milliseconds (in decimal notation).

d = Time spent in kernel processes in milliseconds (in decimal notation).

e = Time spent in supervisor processes in milliseconds (in decimal notation).

f = Last character of the control channel (terminal) of the process (alphabetical).

g = Process number of the process (in decimal notation).

h = Utility identification (ID) as given in the specification file for the process.

i = Size (in bytes) of the process (in decimal notation).

j = Bit pattern on which the process is sleeping (in hexadecimal notation).

k = Command line used to invoke the process, including any arguments passed to the process. This is in alphabetical sequence.

l = Execution level for the process (in decimal notation).

m = Real-time clock value for a single or repetitive timeout (in hexadecimal notation).

n = Time interval (in milliseconds) between timeouts for repetitive timeouts (in decimal notation).

o = Process event-flag word (in hexadecimal notation).

p = Process control channel (in hexadecimal notation).

q = Address of the process control block (PCB) segment descriptor entry (in hexadecimal notation).

r = Dispatcher control table index for the process (in decimal notation).

s = Name of the controller or device.

t = Process number of the parent process (in decimal notation).

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

Seek technical assistance if format 4 or other error message prints.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Key
Formats 1 through 4 have an OMDB key of 287.

Input Messages

```
OP:ST;PROC
STOP:EXC;ANY
STOP:EXC;USER
```

ID . . . . . OP-ST,SUM
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `OP STATUS SUM COMPLETED`
a b c

[2] `OP STATUS SUM STOPPED`
`Cannot open` *c* | `Read error on` *c*

2. REASON FOR OUTPUT

To output the result of executing the `OP:STATUS;SUM` input command to calculate the checksum and to report the number of blocks in a file.

3. VARIABLE FIELD DEFINITIONS

a = 16-bit checksum of a file (in decimal notation).

b = Number of blocks in a file (in decimal notation).

c = Pathname of the file specified in the input command.

4. ACTION TO BE TAKEN

Refer to the input message manual for the correct format and reenter the command, or check the status of the file using the `OP:STATUS;LISTDIR` input message if `can't open` is printed.

Seek technical assistance if `read error` is printed.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 282.

Input Messages
`OP:ST;LSTDIR`
`OP:ST;SUM`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
```
OP-ST,DISKUSE
OP-ST,LSTDIR
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

ID . . . . . OP-STBY
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . XUNIT,MAINT

1. FORMAT

This message has eight formats.

[1]
```
OP STBY MESSAGE STARTED
UNIT        MTCE   INH   DGN
a b[c d] e   f   g
```

[2]
```
OP STBY COMPLETED
```

[3]
```
OP STBY INTERFACE ERROR, ERRNO=h
```

[4]
```
OP STBY NOT STARTED
INVALID DATA FIELD
```

[5]
```
OP STBY NOT STARTED
RETRY LATER
```

[6]
```
OP STBY IN PROGRESS
a b[c d] e   f   g
```

[7]
```
OP STBY RETRY LATER i
```

[8]
```
OP STBY WRITE TO j
FAILED ON KEY #k
```

2. REASON FOR OUTPUT

To give device information specific to computer hardware units on communities requested via the OP:STBY input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

3. VARIABLE FIELD DEFINITIONS

a = Unit name. Computer unit names are listed in the Member Numbers Appendix, MEM-NUM-APPC, Table C.

b = Unit number. See the Member Numbers Appendix, MEM-NUM-APPC, Table C.

c = Subunit name, if *a* = control unit (CU). Computer CU subunit names are listed in the Member Numbers Appendix, MEM-NUM-APPD, Table D.

d = Subunit number. See the Member Numbers Appendix, MEM-NUM-APPC, Table C.

e = The current maintenance state of the unit is indicated by the following identifiers.

ACT — Active units.
GROW — Units being grown.
INIT — Initializing units.
OFL — Offline units.
OOS — Out-of-service units.
STBY — Standby units.
UNAV — Unavailable units.
UNEQIP — Unequipped units.

f = Unit status.

ALW — Allowed.
INH — Inhibited.

g = Results of the last diagnostic on the unit.

ABT — Aborted diagnostics.
ATP — All tests passed.
CATP — Conditional all tests passed.
NTR — No tests were run.
STF — Some tests failed.

h = Error number.

9 — cannot attach to plant measurement library
11 — cannot open equipment configuration database (ECD) sequence
12 — cannot sequence unit control blocks (UCBs)

i = Retry the command later for the following reasons.

```
CANNOT SEQUENCE DATABASE
CANNOT CREATE FILE IN /tmp
CANNOT GET DATABASE RECORD ID
```

j = Temporary output file name.

k = Key associated with write failure.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

5. ALARMS

This alarm is either a manually-requested report or is automatically-generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 49 and 477.
Format 2 has OMDB keys of 50 and 478.
Format 3 has OMDB keys of 51 and 479.
Format 6 has OMDB keys of 580 and 582.
Format 7 has OMDB keys of 588 and 589.
Format 8 has an OMDB key of 656.

Appendixes
MEM-NUM-APPC
MEM-NUM-APPD

Input Messages
OP:ACT
OP:CFGSTAT
OP:GROW
OP:INIT
OP:OFL
OP:OOS
OP:STBY
OP:UNAV
OP:UNEQIP
OP:STBY
OP:CFGSTAT

Output Message
OP-CFGSTAT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . OP-ULARP,COM
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `OP ULARP COMMAND STARTED`
a b c

[2] `OP ULARP` {`COMPLETED`|`ABORTED`}

2. REASON FOR OUTPUT

To print the status of one or all run commands.

3. VARIABLE FIELD DEFINITIONS

a = Name of the equipment configuration database (ECD) record for the run command.

b = Status of the run command.

`COMPLETED` — Run command has successfully executed. Any numeric value indicates the run command failed.

`FORK_FAIL` — User level automatic restart process's (ULARP's) attempt to fork a process to execute the run command failed.

`NON_EXEC` — Run command was not executed.

c = Date and time status field last changed.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Input Message
`OP:ULARP;COM`

ID . . . . . OP-ULARP,EXEC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `OP ULARP EXECSEQ` *a* `STARTED`
`SEQ NUM NAME TYPE BOOTPRM RID/UID DELAY WAIT`
b c d e f g h

[2] `OP ULARP` {`COMPLETED`|`ABORTED`}

2. REASON FOR OUTPUT

To print the order of execution of child processes and run commands.

3. VARIABLE FIELD DEFINITIONS

a = Procedure.

`BOOT` — Bootstrap.

`CFTINIT` — Craft initialization.

b = Sequence number.

c = Name of equipment configuration database (ECD) record for child process or run command.

d = Child process or run command.

`P` — Child process.

`C` — Run command.

e = `BOOTPRM`. Two-digit hexadecimal number which is output as part of a processor recovery message (PRM) resulting from the creation of each child process.

f = Record identification (ID) in the case of a run command, or utility ID in the case of a child process.

g = Delay timing field (in seconds).

h = Wait-for-completion flag for run commands (`YES` or `NO`).

4. ACTION TO BE TAKEN

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Input Message

```
OP:ULARP;EXECSEQ
```

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ID . . . . . OP-ULARP,PROC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `OP ULARP PROCESS STARTED`
`NAME PID STATUS LAST CHANGED RST CNT RST TIME`
a b c d e f

[2] `OP ULARP` {`COMPLETED`|`ABORTED`}

2. REASON FOR OUTPUT

To print the status of one or all user level automatic restart process (ULARP) child processes.

3. VARIABLE FIELD DEFINITIONS

a = Name of equipment configuration database (ECD) record for a ULARP child process.

b = Process ID.

c = One of the following statuses.

`CFTTERM` — Craft initialization is in progress.

`EXECFAIL` — ULARP failed to execute the process.

`FORKFAIL` — ULARP's attempt to fork the process failed.

`NONEXEC` — Process was not executed.

`RUNNING` — Process is running.

`UFATAL` — Process terminated because of a fatal error.

Any numeric value indicates that the process terminated and was not restarted by `ULARP`. The value is the exit status that was returned to `ULARP` the last time the process terminated.

d = Date and time status field last changed.

e = Restart count, if non-zero.

f = Date and time `ULARP` started counting restarts if *e* is non-zero.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Input Message
OP:ULARP;PROC

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . OP-UMEM-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has seven formats.

[1] `OP UMEM STOPPED COULD NOT CREATE` *f #g*

[2] `OP UMEM COMPLETED NO OUTPUT` *#h*

[3] `OP UMEM` *a* [*b* `LINES WRITTEN TO` *c* `FROM CIRCUIT` *d*] *#e*

[4]
```
OP UMEM NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS NO TRACE IS DEFINED
```

[5]
```
OP UMEM NOT STARTED
INVALID ACTION FIELD INVALID KEYWORD
```

[6]
```
OP UMEM NOT STARTED
INVALID ID FIELD GENERAL SYNTAX ERROR
```

[7]
```
OP UMEM NOT STARTED
RETRY LATER THE SYSTEM IS IN AN OVERLOAD CONDITION
```

2. REASON FOR OUTPUT

To report the disposition of an `OP:UMEM` input message.

3. VARIABLE FIELD DEFINITIONS

a = Termination status.

- `COMPLETED` — The data has been dumped to the file as indicated.
- `STOPPED UCERR` — The utility circuit either does not respond or does not match the circuit present when the trace was defined.

b = Number of lines written to the file.

c = Name of the file to which the output was written.

d = Circuit type from which the information was taken.

e,h = Generic access package (GRASP) execution sequence number.

f = `CREATE`, `OPEN`, or `READ`. Indicates which file operation failed.

g = `DIAGNOSTICS` or `TRACE INFORMATION`. Indicates for which file operation failed.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

The file into which the information was written should be removed after it has been examined.

If *a* is `STOPPED UCERR`, check the utility circuit hardware. After it is fixed, use initiative to reinitialize the circuit.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 507.
Format 2 has an OMDB key of 508.
Format 3 has an OMDB key of 509.

Input Messages

```
CLR:F;FILE
DUMP:F;ALL
DUMP:F;PARTL
INIT:UC
OP:ST;PROC
OP:UTIL
OP:UMEM
```

Output Message

```
OP-UTIL
```

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . OP-UMEM-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `OP UMEM STOPPED COULD NOT CREATE` *f #g*

[2] `OP UMEM COMPLETED NO OUTPUT` *#h*

[3] `OP UMEM` *a* [*b* `LINES WRITTEN TO` *c* `FROM CIRCUIT` *d*] *#e*

[4]
```
OP UMEM NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS
 NO TRACE IS DEFINED
```

[5]
```
OP UMEM NOT STARTED
INVALID ACTION FIELD INVALID KEYWORD
```

[6]
```
OP UMEM NOT STARTED
INVALID ID FIELD GENERAL SYNTAX ERROR
```

[7]
```
OP UMEM NOT STARTED
RETRY LATER THE SYSTEM IS IN OVERLOAD
 CONDITION
```

[8]
```
OP UMEM STOPPED TRACE DEFINED ON CU i
 PLEASE RESTORE CU i AND PERFORM A SWITCH
 TO THAT CU.  AFTER THE SWITCH HAS COMPLETED,
 REISSUE THE OP:UMEM INPUT MESSAGE
```

2. REASON FOR OUTPUT

To report the disposition of an `OP:UMEM` input message.

3. VARIABLE FIELD DEFINITIONS

a = Termination status.

`COMPLETED` — The data has been dumped to the file as indicated.

`STOPPED UCERR` — The utility circuit either does not respond or does not match the circuit present when the trace was defined.

SEE PROPRIETARY NOTICE ON COVER PAGE

b = Number of lines written to the file.

c = Name of the file to which the output was written.

d = Circuit type from which the information was taken.

e-h = Generic access package (GRASP) execution sequence number.

f = `CREATE`, `OPEN`, or `READ`. Indicates which file operation failed.

g = `DIAGNOSTICS TRACE INFORMATION`. Indicates file for which operation failed.

i = Zero or 1. Indicates control unit (CU) for which last trace was defined.

4. ACTION TO BE TAKEN

The file into which the information was written should be removed after it has been examined.

If *a* is `STOPPED UCERR`, check the utility circuit hardware. After it is fixed, use initiative to reinitialize the circuit.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 507.
Format 2 has an OMDB key of 508.
Format 3 has an OMDB key of 509.

Input Messages

```
CLR:FILESYS;FILE
DUMP:FILE;ALL
DUMP:FILE;PARTL
INIT:UC
OP:STATUS;PROC
OP:UTIL
OP:UMEM
```

Output Message

```
OP-UTIL
```

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . OP-UNAV
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . XUNIT,MAINT

1. FORMAT

This message has eight formats.

[1]
```
OP UNAV MESSAGE STARTED
UNIT        MTCE   INH   DGN
a b[c d] e   f   g
```

[2]
```
OP UNAV COMPLETED
```

[3]
```
OP UNAV INTERFACE ERROR, ERRNO=h
```

[4]
```
OP UNAV NOT STARTED
INVALID DATA FIELD
```

[5]
```
OP UNAV NOT STARTED
RETRY LATER
```

[6]
```
OP UNAV IN PROGRESS
a b[c d] e   f   g
```

[7]
```
OP UNAV RETRY LATER i
```

[8]
```
OP UNAV WRITE TO j
FAILED ON KEY #k
```

2. REASON FOR OUTPUT

To give device information specific to hardware units on communities requested via the OP:UNAV input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

3. VARIABLE FIELD DEFINITIONS

a = Unit name. Administrative module (AM) unit names are listed in the Member Numbers Appendix, Table C, MEM-NUM-APPC.

b = Unit number. See Member Numbers Appendix, Table C, MEM-NUM-APPC.

c = Subunit name, if *a* = CU. Computer control unit (CU) subunit names are listed in Member Numbers Appendix, Table D, MEM-NUM-APPD.

SEE PROPRIETARY NOTICE ON COVER PAGE

d = Subunit number. See Member Numbers Appendix, Table C, `MEM-NUM-APPC`.

e = The current maintenance state of the unit is indicated by the following identifiers.

`ACT` — Active units.
`GROW` — Units being grown.
`INIT` — Initializing units.
`OFL` — Offline units.
`OOS` — Out-of-service units.
`STBY` — Standby units.
`UNAV` — Unavailable units.
`UNEQIP` — Unequipped units.

f = Indicates the current inhibit status of the associated error source.

`ALW` — Allowed.
`INH` — Inhibited.

g = Results of the last diagnostic on the unit.

`ABT` — Aborted diagnostics.
`ATP` — All tests passed.
`CATP` — Conditional all tests passed.
`NTR` — No tests were run.
`STF` — Some tests failed.

h = Error number.

9 — cannot attach to plant measurement library
11 — cannot open equipment configuration database (ECD) sequence
12 — cannot sequence (UCBs)

i = Retry the command later for the following reasons.

```
CANNOT SEQUENCE DATABASE
CANNOT CREATE FILE IN /tmp
CANNOT GET DATABASE RECORD ID
```

j = Temporary output file name.

k = Key associated with write failure.

4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

5. ALARMS

This alarm is either a manually-requested report or is automatically-generated. Action may or may not be required.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 49 and 477.
Format 2 has OMDB keys of 50 and 478.
Format 3 has OMDB keys of 51 and 479.
Format 6 has OMDB keys of 580 and 582.
Format 7 has OMDB keys of 588 and 589.
Format 8 has an OMDB key of 656.

Appendixes

`MEM-NUM-APPC`
`MEM-NUM-APPD`

Input Messages

`OP:ACT`
`OP:CFGSTAT`
`OP:GROW`
`OP:INIT`
`OP:OFL`
`OP:OOS`
`OP:STBY`
`OP:UNAV`
`OP:UNEQIP`

ID . . . . . OP-UNEQIP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . XUNIT,MAINT

1. FORMAT

This message has eight formats.

[1]
```
OP UNEQIP MESSAGE STARTED
UNIT        MTCE   INH   DGN
a b[c d] e   f   g
```

[2]
```
OP UNEQIP COMPLETED
```

[3]
```
OP UNEQIP INTERFACE ERROR, ERRNO=h
```

[4]
```
OP UNEQIP NOT STARTED
INVALID DATA FIELD
```

[5]
```
OP UNEQIP NOT STARTED
RETRY LATER
```

[6]
```
OP UNEQIP IN PROGRESS
a b[c d] e   f   g
```

[7]
```
OP UNEQIP RETRY LATER i
```

[8]
```
OP UNEQIP WRITE TO j
FAILED ON KEY #k
```

2. REASON FOR OUTPUT

To give device information specific to hardware units on communities requested via the OP:UNEQIP input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

3. VARIABLE FIELD DEFINITIONS

a = Unit name. Administrative module (AM) unit names are listed in Member Numbers Appendix, Table C, MEM-NUM-APPC.

b = Unit number. See Member Numbers Appendix, Table D, MEM-NUM-APPD.

c = Subunit name, if *a* = CU. Control unit (CU) subunit names are listed in Member Numbers Appendix, Table D, MEM-NUM-APPD.

SEE PROPRIETARY NOTICE ON COVER PAGE

d = Subunit number. See Member Numbers Appendix, Table C, `MEM-NUM-APPC`.

e = Current maintenance state of the unit is indicated by the following identifiers.

`ACT` — Active units.
`GROW` — Units being grown.
`INIT` — Initializing units.
`OFL` — Offline units.
`OOS` — Out-of-service units.
`STBY` — Standby units.
`UNAV` — Unavailable units.
`UNEQIP` — Unequipped units.

f = Indicates the current inhibit status of the associated error source.

`ALW` — Allowed.
`INH` — Inhibited.

g = Results of the last diagnostic on the unit:

`ABT` — Aborted diagnostics.
`ATP` — All tests passed.
`CATP` — Conditional all tests passed.
`NTR` — No tests were run.
`STF` — Some tests failed.

h = Error number.

9 — cannot attach to plant measurement library
11 — cannot open equipment configuration database (ECD) sequence
12 — cannot sequence unit control blocks (UCBs)

i = Retry the command later for the following reasons.

```
CANNOT SEQUENCE DATABASE
CANNOT CREATE FILE IN /tmp
CANNOT GET DATABASE RECORD ID
```

j = Temporary output file name.

k = Key associated with write failure.

4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

5. ALARMS

This alarm is either a manually-requested report or is automatically-generated. Action may or may not be required.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 49 and 477.
Format 2 has OMDB keys of 50 and 478.
Format 3 has OMDB keys of 51 and 479.
Format 6 has OMDB keys of 580 and 582.
Format 7 has OMDB keys of 588 and 589.
Format 8 has an OMDB key of 656.

Appendixes

`MEM-NUM-APPC`
`MEM-NUM-APPD`

Input Messages

`OP:ACT`
`OP:CFGSTAT`
`OP:GROW`
`OP:INIT`
`OP:OFL`
`OP:OOS`
`OP:STBY`
`OP:UNAV`
`OP:UNEQIP`

ID . . . . . OP-UTIL-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1]
```
OP UTIL COMPLETED

DTIME = a          STIME = b
DCYCLE = c          DEATH DELAY = d

{NO FLAGS DEFINED |
BPTNUM  UID X'  PID   ADDR X'   L  MODE   (IMP) STATE
 e   f   g    h   i  j  (k)  l }
{NO TRACE DEFINED |

TRACE   UID X'  PID   ADDR X'   L  STORE  (IMP) STATE
 m   n    o    p   q  r  (s)  t }
#u
```

[2]
```
OP UTIL NOT STARTED
INVALID ACTION FIELD INVALID KEYWORD
```

[3]
```
OP UTIL NOT STARTED
RETRY LATER THE SYSTEM IS IN AN OVERLOAD CONDITION
```

2. REASON FOR OUTPUT

To print a summary status report of the generic access package (GRASP) state in response to an `OP:UTIL` input message. The effective values of the dynamic and static thresholds, defined breakpoints and their attributes, and the transfer trace attributes are printed.

3. VARIABLE FIELD DEFINITIONS

a = Threshold value of dynamic real time usage at which GRASP will take overload recovery. Expressed as a percentage.

b = Threshold value of real time allowed for an individual breakpoint. Breakpoints which exceed this limit will be rejected. Expressed in milliseconds.

c = Interval of time over which GRASP real time usage is accumulated. Expressed in milliseconds.

d = Length of time of debugging inactivity through which GRASP will wait before terminating itself. Expressed in minutes.

e = Breakpoint number.

SEE PROPRIETARY NOTICE ON COVER PAGE

f = Utility ID (UID) of the process in which the breakpoint is planted. The value is enclosed in parentheses if the breakpoint definition specified a process ID (PID) instead of a utility ID.

g = PID of the process in which the breakpoint is planted. The value is enclosed in parentheses if the breakpoint definition specified a utility ID instead of a process ID. The field will be blank if no suitable process has been found.

h = Address of the breakpoint.

i = Length of the match interval. Execution breakpoints indicate 1 byte.

j = Breakpoint condition as specified in the `WHEN` input message.

k = Implementation of the breakpoint. Software implemented breakpoints are not marked. Hardware implemented breakpoints are marked with an `H`. In addition, the range matcher is marked with an asterisk (*) and the hardware execution matcher is marked with a pound sign (#).

l = Breakpoint state: `ENABLED` or `DISABLED`.

m = Stop condition of the trace; one of the following.

`CIRCULAR` — The trace will run indefinitely, replacing the oldest data with the newest.
`STOP FULL` — The trace will stop when the memory fills up.

n = Utility ID to which the trace is restricted. The value will be enclosed in parentheses if the `INIT:UMEM` message specified a process ID. Will be blank if no restriction was given.

o = Process ID to which the trace is restricted. Will be blank if no PID restriction was given.

p = Beginning address to which the trace is restricted.

q = Length of the address interval to which the trace is restricted.

r = Storage mode: `UID` or `TRANSFER`.

s = Implementation of the trace. Indicates which matcher is used with `H*` for the range matcher and `H#` for the execution matcher.

t = Trace state.

`DUMPED` — The trace is not running and its data has already been dumped.
`NEW` — The trace is not running and does not contain data.
`RUNNING` — The trace is collecting data.
`STOPPED` — The trace is not running but does contain data.

u = GRASP execution sequence number range. Other GRASP operations have higher priority than `OP:UTIL`, some may occur during `OP:UTIL` formatting.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Format 1 has an OMDB key of 515.

Input Messages
```
IN:DTIME
IN:STIME
INIT:UMEM
OP:STATUS;PROCESS
OP:UTIL
```

Output Messages
```
WHEN-PID
WHEN-UID
```

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . OP-UTIL-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1]
```
OP UTIL COMPLETED

DTIME = a
DCYCLE = c        DEATH DELAY = d

{NO FLAGS DEFINED
BPTNUM  UID X'  PID  ADDR X'  L  MODE   (IMP) STATE
 e   f   g   h   i  j  (k)  l }

{NO TRACE DEFINED
TRACE   UID X'  PID  ADDR X'  L  STORE  (IMP) STATE
 m   n   o   p   q  r  (s)  t }
#u
```

[2]
```
OP UTIL NOT STARTED
INVALID ACTION FIELD INVALID KEYWORD
```

[3]
```
OP UTIL NOT STARTED
RETRY LATER THE SYSTEM IS IN AN OVERLOAD CONDITION
```

2. REASON FOR OUTPUT

To print a summary status report of the generic access package (GRASP). This is in response to an `OP:UTIL` input message. The effective values of the dynamic and static thresholds, defined breakpoints and their attributes, and the transfer trace attributes are printed.

3. VARIABLE FIELD DEFINITIONS

a = Threshold value of dynamic real time usage at which GRASP will take overload recovery. Expressed as a percentage.

c = Interval of time over which GRASP real time usage is accumulated. Expressed in milliseconds.

SEE PROPRIETARY NOTICE ON COVER PAGE

d = Length of time of debugging inactivity through which GRASP will wait before terminating itself. Expressed in minutes.

e = Breakpoint number.

f = Utility ID (UID) of the process in which the breakpoint is planted. The value is enclosed in parentheses if the breakpoint definition specified a process ID instead of a utility ID.

g = Process ID (PID) of the process in which the breakpoint is planted. The value is enclosed in parentheses if the breakpoint definition specified a utility ID instead of a process ID. The field will be blank if no suitable process has been found.

h = Address of the breakpoint.

i = Length of the match interval. Execution breakpoints indicate one byte.

j = Breakpoint condition as specified in the `WHEN` input message.

k = Implementation of the breakpoint. Software implemented breakpoints are not marked. Hardware implemented breakpoints are marked with an `H`. In addition, the range matcher is marked with an asterisk (*) and the hardware execution matcher is marked with a pound sign (#).

l = Breakpoint state includes one of the following: `ENABLED` or `DISABLED`.

m = Stop condition of the trace - includes one of the following.

`STOP FULL` — The trace will stop when the memory fills up.
`CIRC` — The trace will run indefinitely, replacing the oldest data with the newest.

n = Utility ID to which the trace is restricted. The value will be enclosed in parentheses if the `INIT:UMEM` message specified a process ID. If no restriction was given, will be blank.

o = Process ID to which the trace is restricted. If no PID restriction was given, will be blank.

p = Beginning address to which the trace is restricted.

q = Length of the address interval to which the trace is restricted.

r = Storage mode: `UID`, `TRANS`, `DATA`, `DTRANS`, `FPARAM`, or `DFPAR`.

s = Implementation of the trace. Indicates which matcher is used with `H*` for the range matcher and `H` for the execution matcher.

SEE PROPRIETARY NOTICE ON COVER PAGE

t = Trace state:

`NEW` — The trace is not running and does not contain data.
`RUNNING` — The trace is collecting data.
`STOPPED` — The trace is not running but does contain data.
`DUMPED` — The trace is not running and its data has already been dumped.

u = GRASP execution sequence number range. Other GRASP operations have higher priority then `OP:UTIL`, some may occur during `OP:UTIL` formatting.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Format 1 has OMDB key of 515.

Input Messages
`IN:DTIME`
`IN:STIME`
`INIT:UMEM`
`OP:STATUS:;ROCESS`
`OP:UTIL`

Output Messages
`WHEN-PID`
`WHEN-UID`

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . OP:VERSION
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output

1. FORMAT

```
OP VERSION [MISMATCH]  a  [PART b [COMPLETED]]
   PARTITION       VERSION          BWM
   c                d                 e
                    .
                    .
                    .
   [DISK CONFIGURATION: f]
```

2. REASON FOR OUTPUT

To respond to the input message OP:VERSION.

3. VARIABLE FIELD DEFINITIONS

COMPLETED = Final part of multipart message.

MISMATCH = The generic versions and/or software-update levels do not match.

PART = Indicates multipart message.

a = Version and level to which date partitions were set.

b = Message part number.

c = Partition name. The pseudo-partition ECD refers to the 'systype' and 'genid' items from the 'eaiopt' form in the equipment configuration database (ECD).

d = Generic version of this partition.

e = Software-update level of this partition. The ECD partition does not have a software-update level.

f = Office disk configuration.

4. ACTION TO BE TAKEN

None. This message is for information only.

5. ALARMS

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

Input Message(s):

```
OP:VERSION
UPD:VERSION
```

Output Message(s):

```
UPD:VERSION
```

ID . . . . . ORD-SCSD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `ORD SCSD UNIT` *a* `PT` *b*[*bbbbbbb*] *f g*

[2] `ORD SCSD GRPN` *c* `DUPID` *d* `PT` *e*[*eeeee*] *f g*

[3]
```
ORD SCSD NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS
```

2. REASON FOR OUTPUT

To indicate the result of a distribute operation requested by an `ORD:SCSD` input message. The operations are: set, clear, flash for eight seconds, and flash continuously.

Format 1 is used when a distribute point is identified by physical location.

Format 2 is used when a distribute point is identified by logical address.

Format 3 indicates the scanner and signal distributor (SCSD) administration process is not active. No communication with SCSD points is possible.

3. VARIABLE FIELD DEFINITIONS

a = Member number of SCSD unit.

b = Physical scan point number on an SCSD (0-31).

c = Name of the logical group.

d = Duplex group ID (0 or 1).

e = Number of a point within a logical group.

f = Distribute operation.

`RELEASE` — Clear.
`OPERATE` — Set.
`STEP` — Flash for eight seconds, which it terminates in the cleared state.
`REPEAT` — Flash continuously.

SEE PROPRIETARY NOTICE ON COVER PAGE

g = Termination status.

`FAILED` — Action could not be completed by SCSD administrator.

Possible reasons for failure are:

— SCSD unit number is invalid.

— Point number is invalid for the logical group. If more than one point number is specified, at least one of them is invalid. Operation will complete for all valid point numbers if there are no other errors.

— Logical group name is invalid and either the SCSD unit is out-of-service (OOS) or is in an inactive state to the SCSD administrator.

`COMPLETED` — Action completed.

4. ACTION TO BE TAKEN

Issue the `OP:OOS` input message to determine if the SCSD unit is listed as out-of-service. Otherwise, enter recent change and verify (RC/V) to verify input message arguments.

If logical addressing is used, check that the logical group name exists and/or the point number is contained in the logical group. If physical addressing is used, verify that the SCSD unit is equipped.

If the above results are negative, seek technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 229.

Input Messages
`OP:OOS`
`ORD:SCSD`

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID PRM-0
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has seven formats.

[1] PRM_*a bcde ffgg gggg gggg hi jk lm*

[2] PRM_*a b*6*de* 10*u nnn ooo ppp hi jk lm*

[3] PRM_*a b*6*de* 20*u nnn ooo ppp hi jk lm*

[4] PRM_*a b*6*de* 3*qr nnn ooo ppp hi jk lm*

[5] PRM_*a b*6*de* 40*t ttt nnn ooo hi jk lm*

[6] PRM_*a b*6*de* 60*q uss nnn ooo hi jk lm*

[7] PRM_*a b*6*de* 7*qr uss nnn ooo hi jk lm*

2. REASON FOR OUTPUT

To report the completion status of each computer process during processor recovery. The report is called a Processor Recovery Message (PRM). See the *UNIX® RTR Operating System Processor Recovery Messages Guide* for detail on specific PRMs printed on the ROP.

Successful execution produces a success PRM. If a process encounters a failure, a failure PRM is produced to indicate which process failed, the reason for the failure, and, in some cases, the failing data.

Format 1 is printed for all processes except the disk driver. Formats 2 - 7 are disk driver failure PRMs.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the control unit (CU) which output the PRM (0 or 1).

b = Type of PRM.

E — Success.

F — Failure.

SEE PROPRIETARY NOTICE ON COVER PAGE

c = Major step or process that output PRM.

0 — Microboot.

1 — Little Boot and load disk from tape.

2 — PINIT.

3 — Big Boot.

4 — KBOOT.

5 — EIH.

6 — Disk Driver.

7 — IOP Driver.

8 — File Manager.

9 — UNIX® RTR Processes: kernel, scheduler, memory manager, capabilities manager, or utilities manager.

A — Process Manager.

B — System Integrity Monitor (SIM).

C — SIM recovery complete.

D-E — Not used by UNIX® RTR. Could be an application process. See application documentation.

d = UNIX® RTR level of initialization.

e = Application level of initialization.

f = Two-digit code for function within major step.

g = 10 digits of failure data or other information.

h = Emergency action interface (EAI) status digit bits numbered right to left as follows.

3 — Power up.

2 — Central control (CC) run.

1 — CC active.

0 — EAI all seems well (ASW).

i = EAI status digit, bits numbered right to left as follows.

3 — New PRM.
2 — Maintenance reset function (MRF) start.
1 — Pulse point 23.
0 — Pulse point 22.

SEE PROPRIETARY NOTICE ON COVER PAGE

j = EAI status digit, bits numbered right to left as follows.

3 — IPB received.
2 — EAI enabled.
1 — Primary disk.
0 — Secondary disk.

k = EAI status digit, bits numbered right to left as follows.

3 — CC forced on.
2 — CC forced off.
1 — Timer disable.
0 — CC MRF.

l = Current status of inhibits, bits numbered right to left as follows.

3 — Hardware checks are inhibited.
2 — UNIX® RTR error interrupts are inhibited.
1 — Cache is bypassed (inhibited).
0 — Software checks are inhibited (SIM inhibited).

m = Configuration control options, bits numbered right to left as follows.

3 — Backup root file system being used.
2 — Minimum configuration being used.
1 — Unused.
0 — Unused.

4. ACTION TO BE TAKEN

Refer to the *Processor Recovery Message Guide* for detailed information. If additional information is required, contact the product engineering control center.

5. ALARMS

None.

6. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RCV-DMTECD,VFY
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `RCV DMTECD VFY STARTED`

[2] `RCV DMTECD VFY DB` *a* `- PAGE` *b* `OF` *c*

[3] `RCV DMTECD VFY DB` *a* `COMPLETED`

[4] `RCV DMTECD VFY DB` *a* `ERROR MESSAGES`

[5] `RCV DMTECD VFY DB` *a* `ABORTED INTERNAL ERROR`

[6] `RCV DMTECD VFY DB` *a* `LOG - PAGE` *b* `OF` *c*

[7] `RCV DMTECD VFY DB` *a* `ERRORS FOLLOW`

[8] `RCV DMTECD VFY DB` *a* `TERMINATED WITH ERRORS`

2. REASON FOR OUTPUT

To report the initiation or completion of an `RCV:DMTECD;VFY` session, preface error output, preface log file output, or to flag termination status.

3. VARIABLE FIELD DEFINITIONS

a = Data base accessed by `RCV:DMTECD;VFY`.

b = Current page of output file.

c = Total pages of output file.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Formats 4,5,7, and 8 have an OMDB key of 721.
Formats 1,2,3, and 6 have an OMDB key of 722.

Input Messages

```
RCV:DMTECD;VFY
RCV:M;RCVECD
```

ID . . . . . RCV-DMTSG,VFY
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `RCV DMTSG VFY STARTED`

[2] `RCV DMTSG VFY DB` *a* `-PAGE` *b* `OF` *c*

[3] `RCV DMTSG VFY DB` *a* `COMPLETED`

[4] `RCV DMTSG VFY DB` *a* `ERROR MESSAGES`

[5] `RCV DMTSG VFY DB` *a* `ABORTED INTERNAL ERROR`

[6] `RCV DMTSG VFY DB` *a* `LOG - PAGE` *b* `OF` *c*

[7] `RCV DMTSG VFY DB` *a* `ERRORS FOLLOW`

[8] `RCV DMTSG VFY DB` *a* `TERMINATED WITH ERRORS`

2. REASON FOR OUTPUT

To report the initiation or completion of an `RCV:DMTSG;VFY` session, preface error output, preface log file output, or to flag termination status.

3. VARIABLE FIELD DEFINITIONS

a = Data base accessed by `RCV:DMTSG;VFY`.

b = Current page of output file.

c = Total pages of output file.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Formats 4,5,7, and 8 have an OMDB key of 721.
Formats 1,2,3, and 6 have an OMDB key of 722.

Input Messages
```
RCV:DMTSG;VFY
RCV:M;RCVSG
```

ID . . . . . RCV-MENU
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . RC

1. FORMAT

`RCV MENU` *a b* [*c*][`ERRNO` *d*]

2. REASON FOR OUTPUT

To specify the termination status of an `RCV:MENU` input message.

3. VARIABLE FIELD DEFINITIONS

a = Name of first ID field of corresponding input message.

b = Termination status.

`ABORTED` — Error.
`COMPLETED` — Successful completion.

If *b* = `ABORTED`:

c = One of the following messages.

`CANNOT CREATE ERROR FILE` — Recent change activity unable to create a log file for errors; permissions may be inappropriate or file space may be insufficient.

`CANNOT EXEC` — Unknown recent change activity in second data field or permissions inappropriate.

`CANNOT WAIT` — MENU finds system call failure.

`DATA SUBFIELD` *num* `INCORRECT` — Parameters to recent change activity incorrect; *num* is an integer starting from one, indicating which parameter is not understood.

`CANNOT DETERMINE DEFAULT VALUES` — Special error return from `RCV` indicating failure to determine default mask directory.

`FORK FAILED` — `MENU` finds system call failure.

SEE PROPRIETARY NOTICE ON COVER PAGE

INTERNAL ERROR	— Recent change activity encountered an internal error; error message logged to error file named for the activity.
ODIN FORM CHECK FAILED FOR BATCH	— Special error return from RCV3B to indicate a failure in batch mode.
OUT OF MEMORY	— MENU cannot find main memory for setup.
CANNOT GETTRAP STDIN	— System call failed.
CANNOT REOPEN STREAM	— Library call failed.
CANNOT GETTRAP	— System call failed.
CANNOT SETTRAP	— System call failed.
CANNOT REOPEN TERMINAL	— Library call failed.
SETTRAP STDIN FAILED	— System call failed.
CLOSE FAILED	— System call failed.
DUP FAILED	— System call failed.
FCLOSE FAILED	— Library call failed.
PIPE FAILED	— System call failed.
READ FAILED	— System call failed.
WRITE FAILED	— System call failed.

d = Error number after system call failure. See System Error Codes Output Appendix, SYSERR-APP.

4. ACTION TO BE TAKEN

Check the input messages manual and the output messages manual version of the message to see if an error log file exists.

If INTERNAL ERROR is printed, examine the error log file. If an error log file does not exist, check the ROP.

Seek assistance to restore the system to sanity if any other system-related or library-related message is printed.

Refer to input messages manual and reenter the correct input format for any other error messages.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
This message has an OMDB key of 169.

Output Appendix
SYSERR-APP

Input Messages
RCV:M;BROWSE
RCV:M;CREATEECD
RCV:M;CREATESG
RCV:M;EVOL
RCV:M;LOADF3B
RCV:M;RCVECD
RCV:M;RCVSG
RCV:M;TRANSGEN
RCV:M;TREEBLD

ID . . . . . RCVRY-ALARM
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has one format.

```
RCVRY ALARM
```

2. REASON FOR OUTPUT

To indicate on the SCC channel that a stimulus occurred that resulted in a recovery action.

3. VARIABLE FIELD DEFINITIONS

None

4. ACTION TO BE TAKEN

Monitor the progress of the software recovery. Initiate the appropriate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

Output Message
```
START-OF
CU-RECOVERY
```

Other Manual(s)
```
235-105-250 System Recovery
```

ID . . . . . RCVRY-CU
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RCVRY CU` *a* `COMPLETED`

2. REASON FOR OUTPUT

To report that the initialization interval of the active control unit (CU) is complete.

3. VARIABLE FIELD DEFINITIONS

a = Member number (0 or 1).

4. ACTION TO BE TAKEN

To determine the cause of the initialization, access the most recent post-mortem dump from PMLOG. (Use the `OP:LOG` message and specify the current date.)

5. ALARMS

None.

6. REFERENCES

Input Message
`OP:LOG`

ID . . . . . RCVRY-DUI
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RCVRY DUI` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a direct user interface (DUI) subdevice recovery attempt. The DUI, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:DUIC`
`RMV:DUI`
`RST:DUI`
`CLR:IODRV`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
REPT-IOP
REPT-DUIC
REPT-DUI
RCVRY-IOP
RCVRY-DUIC
```

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

ID . . . . . RCVRY-DUIC
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RCVRY DUIC` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a direct user interface controller (DUIC) recovery attempt. The DUIC, initially in the active state, transitions to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:DUIC`
`RMV:DUIC`
`RST:DUIC`
`CLR:IODRV`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
REPT-IOP
REPT-DUIC
RCVRY-IOP

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RCVRY-HSD
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RCVRY HSD` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a high-speed synchronous data link (HSD) recovery attempt. The HSD, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:HSDC`
`RMV:HSD`
`RST:HSD`
`CLR:IODRV`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
DGN-HSDC
REPT-IOP
REPT-HSD
REPT-HSDC
RCVRY-IOP
RCVRY-HSDC
RMV-HSD
RST-HSD
```

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RCVRY-HSDC
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RCVRY HSDC` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a high-speed synchronous datalink controller (HSDC) recovery attempt. The HSDC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:HSDC`
`RMV:HSDC`
`RST:HSDC`
`CLR:IODRV`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
REPT-IOP
REPT-HSDC
RCVRY-IOP

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

ID . . . . . RCVRY-IOP
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RCVRY IOP` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of an input/output processor (IOP) recovery attempt. The IOP, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:IOP`
`RMV:IOP`
`RST:IOP`
`CLR:IODRV`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
DGN-IOP
REPT-IOP
RCVRY-IOP

Practice 254-301-105 *Input/Output Processor Description and Theory of Operation 3B Processor*

ID . . . . . RCVRY-MT
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RCVRY MT` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a magnetic tape (MT) unit recovery attempt. The MT, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`CLR:IODRV`
`DGN:MTC`
`RMV:MT`
`RST:MT`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
RCVRY-IOP
RCVRY-MTC
REPT-IOP
REPT-MT

Practice 254-301-220 *Magnetic Tape System General Description 3B20D Model 1 Processor*

ID . . . . . RCVRY-MTC
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RCVRY MTC` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a magnetic tape controller (MTC) recovery attempt. The MTC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred; recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:MTC`
`RMV:MTC`
`CLR:IODRV`
`RST:MTC`

Output Messages
`RCVRY-IOP`
`REPT-IOP`

SEE PROPRIETARY NOTICE ON COVER PAGE

Practice 254-301-220 *Magnetic Tape System General Description 3B20D Model 1 Processor*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RCVRY-MTTY
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RCVRY MTTY` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a maintenance teletypewriter (MTTY) recovery attempt. The MTTY, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:MTTYC`
`RMV:MTTY`
`CLR:IODRV`
`RST:MTTY`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
RCVRY-IOP
RCVRY-MTTYC
REPT-IOP
REPT-MTTY
REPT-MTTYC

Practice 254-301-115 *Teletypewriter/Printer System Description Lucent Technologies 3B20D Computer*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RCVRY-MTTYC
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RCVRY MTTYC` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a maintenance teletypewriter controller (MTTYC) recovery attempt. The MTTYC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`CLR:IODRV`
`DGN:MTTYC`
`RMV:MTTYC`
`RST:MTTYC`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
RCVRY-IOP
REPT-IOP
REPT-MTTYC

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

Practice 254-301-115 *Teletypewriter/Printer System Description Lucent Technologies 3B20D Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RCVRY-ROP
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RCVRY ROP` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a receive-only printer (ROP) recovery attempt. The ROP, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:MTTYC`
`RMV:ROP`
`CLR:IODRV`
`RST:ROP`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
RCVRY-IOP
RCVRY-MTTYC
REPT-ROP
REPT-IOP
REPT-MTTYC

Practice 254-301-115 *Teletypewriter/Printer System Description Lucent Technologies 3B20D Computer*

ID . . . . . RCVRY-SCC
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RCVRY SCC` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a Switching Control Center (SCC) recovery attempt. The SCC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:MTTYC`
`RMV:SCC`
`CLR:IODRV`
`RST:SCC`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
RCVRY-IOP
RCVRY-MTTYC
REPT-IOP
REPT-MTTYC
REPT-SCC
```

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . RCVRY-SCSDC
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RCVRY SCSDC` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a scanner and signal distributor (SCSD) recovery attempt. The SCSD, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`RMV:SCSDC`
`RST:SCSDC`
`CLR:IODRV`

Output Messages
`RCVRY-IOP`
`REPT-IOP`
`REPT-SCSDC`

SEE PROPRIETARY NOTICE ON COVER PAGE

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

ID . . . . . RCVRY-SDL
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RCVRY SDL` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a synchronous datalink (SDL) recovery attempt. The SDL, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:SDLC`
`RMV:SDL`
`CLR:IODRV`
`RST:SDL`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
RCVRY-IOP
RCVRY-SDLC
REPT-IOP
REPT-SDL
REPT-SDLC
```

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RCVRY-SDLC
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RCVRY SDLC` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a synchronous datalink controller (SDLC) recovery attempt. The SDLC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:SDLC`
`RMV:SDLC`
`CLR:IODRV`
`RST:SDLC`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
RCVRY-IOP
REPT-IOP
REPT-SDLC

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

ID . . . . . RCVRY-TTY
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RCVRY TTY` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a teletypewriter (TTY) recovery attempt. The TTY, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:TTYC`
`RMV:TTY`
`CLR:IODRV`
`RST:TTY`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
RCVRY-IOP
RCVRY-TTYC
REPT-IOP
REPT-TTY
REPT-TTYC
```

Practice 254-301-115 *Teletypewriter/Printer System Description Lucent Technologies 3B20D Computer*

ID . . . . . RCVRY-TTYC
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RCVRY TTYC` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a teletypewriter controller (TTYC) recovery attempt. The TTYC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — - Recovery was successful.

c = Additional error information. See IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:TTYC`
`RMV:TTYC`
`CLR:IODRV`
`RST:TTYC`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
RCVRY-IOP
REPT-IOP
REPT-TTYC

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

ID . . . . . REPT-ADP-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats

[1] `REPT ADP AUTORST FAILURE FOR` *a b* [*c*] [*d*]

[2] `REPT ADP MAJOR ALARM AUTORST FAILURE FOR` *a b* [*c*] [*d*]

[3] `REPT ADP MINOR ALARM AUTORST FAILURE FOR` *a b* [*c*] [*d*]

2. REASON FOR OUTPUT

The automatic diagnostic process (ADP) after fault branch was unable to restore a suspected faulty hardware unit, and ADP will no longer attempt to diagnose or restore the hardware unit or community.

Format 1 is output to report that the suspected faulty hardware unit or community has exceeded its error threshold.

Format 2 is output when the hardware unit or community is essential.

Format 3 is output when the hardware unit or community is a unit or community whose top unit is an input/output processor (IOP).

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

c = Subunit name.

d = Subunit number.

4. ACTION TO BE TAKEN

For Format 1, manual action is required to diagnose, repair, and restore the hardware unit or community to service.

For Formats 2 and 3, if the hardware unit or community actually failed the restore, manual action is required to diagnose, repair, and restore the hardware unit or community to service.

The maintenance input request administration (MIRA) process might not start or complete ADP's restore requests for one of the following reasons (use the `OP:DMQ` input message to check the deferred maintenance queue [DMQ]):

— The `DMQ` already has a restore request for the hardware unit, community, or top unit. MIRA canceled ADP's restore request as a duplicate.

SEE PROPRIETARY NOTICE ON COVER PAGE

— Request source ADP is inhibited in the DMQ. Determine why ADP was inhibited and, if practical, use the ALW:DMQ input message to remove the inhibit.

— An initialization interval is in the progress. MIRA aborted tasks in the active queue. Tasks in the waiting queue are started at the end of the initialization interval. ADP may generate another restore request.

— ADP's internal request timer may have expired if there is a large number of manual requests and/or there is a high system load. ADP's request might still be in the DMQ. MIRA defers ADP requests in favor of manual requests, and part of the active queue is for manual requests only.

Request a restore on the hardware unit or community if the hardware unit, community, or top unit does not have a restore request in the queue. No further action is required if the restore is successful.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 469.
Format 2 has an OMDB key of 470.
Format 3 has an OMDB key of 471.

Input Messages
ALW:DMQ
DGN:CU
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:MHD
DGN:MT
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
OP:DMQ
RST:CU
RST:DFC
RST:DUI
RST:DUIC
RST:HSD
RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY

SEE PROPRIETARY NOTICE ON COVER PAGE

RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC

Output Messages

DGN-AUDIT
DGN-CU
DGN-CU,MASC
DGN-DFC
DGN-DUIC
DGN-HSDC
DGN-IOP
DGN-MHD
DGN-MT
DGN-MTC
DGN-MTTYC
DGN-SCSDC
DGN-SDLC
DGN-TTYC
DGN-TTYC
OP-DMQ
REPT-ADPAB
REPT-AUTORST
RMV-CU
RMV-DFC
RMV-DUI
RMV-DUIC
RMV-HSD
RMV-HSDC
RMV-IOP
RMV-MHD
RMV-MT
RMV-MTC
RMV-MTTY
RMV-MTTYC
RMV-ROP
RMV-SBUS
RMV-SCC
RMV-SCSDC
RMV-SDL
RMV-SDLC
RMV-TTY
RMV-TTYC
RST-SBUS

SEE PROPRIETARY NOTICE ON COVER PAGE

```
RST-MTTYC
RST-TTYC
RST-CU
RST-MT
RST-DUI
RST-SCC
RST-IOP
RST-MTTY
RST-DUIC
RST-MTC
RST-MHD
RST-SDLC
RST-ROP
RST-SDL
RST-HSD
RST-TTY
RST-DFC
RST-SCSDC
RST-HSDC
```

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-ADP-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `REPT ADP AUTORST FAILURE FOR` *a b* [*c*] [*d*]

[2] `REPT ADP MAJOR ALARM AUTORST FAILURE FOR` *a b* [*c*] [*d*]

[3] `REPT ADP MINOR ALARM AUTORST FAILURE FOR` *a b* [*c*] [*d*]

[4] `REPT ADP NO AUTORST, UNIT IS MAN RMV FOR` *a b* [*c*] [*d*]

[5] `REPT ADP NO AUTORST, UNIT IS FLT RMV FOR` *a b* [*c*] [*d*]

[6] `REPT ADP NO AUTORST, UNIT IS NOT OOS FOR` *a b* [*c*] [*d*]

2. REASON FOR OUTPUT

The automatic diagnostic process (ADP) after fault branch was unable to restore a suspected faulty hardware unit, and ADP will no longer attempt to diagnose or restore the hardware unit or community.

Format 1 is output to report that the suspected faulty hardware unit or community has exceeded its error threshold.

Format 2 is output when the hardware unit or community is essential.

Format 3 is output when the hardware unit or community is a unit or community whose top unit is an input/output processor (IOP).

Format 4 is output to report that the unit will not be automatically restored because it was manually removed.

Format 5 is output to report that the unit will not be automatically restored because it was fault removed.

Format 6 is output to report that the unit will not be automatically restored because it was not out of service.

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

c = Subunit name.

d = Subunit number.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

For format 1, manual action is required to diagnose, repair, and restore the hardware unit or community to service.

For formats 2 and 3, if the hardware unit or community failed the restore, manual action is required to diagnose, repair, and restore the hardware unit or community to service.

The maintenance input request administration (MIRA) process might not start or complete ADP's restore requests for one of the following reasons (use the `OP:DMQ` input message to check the deferred maintenance queue [DMQ]):

— The DMQ already has a restore request for the hardware unit, community, or top unit. MIRA canceled ADP's restore request as a duplicate.

— Request source ADP is inhibited in the DMQ. Determine why ADP was inhibited and, if practical, use the `ALW:DMQ` input message to remove the inhibit.

— An initialization interval is in the progress. MIRA aborted tasks in the active queue. Tasks in the waiting queue are started at the end of the initialization interval. ADP may generate another restore request.

— ADP's internal request timer may have expired if there is a large number of manual requests and/or there is a high system load. ADP's request might still be in the DMQ. MIRA defers ADP requests in favor of manual requests, and part of the active queue is for manual requests only.

Request a restore on the hardware unit or community if the hardware unit, community, or top unit does not have a restore request in the queue. No further action is required if the restore is successful.

For format 4, if the hardware unit should be restored, then restore the unit manually.

For format 5, if the hardware unit should be restored, determine what is wrong with the unit using diagnostics, correct the problem, and manually restore the unit.

For format 6, if the hardware unit is not active and not OOS, and if the hardware unit should be restored, then move the unit to OOS using RC/V UCB and manually restore the unit.

5. ALARMS

There is no alarm for an automatically-generated report that is for information only.

If a minor alarm occurs, take action as indicated in the report.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Formats 1, 4, 5, and 6 have an OMDB key of 474.
Format 2 has an OMDB key of 475.
Format 3 has an OMDB key of 476.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
ALW:DMQ
DGN:CU
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:MHD
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
OP:DMQ
RST:CU
RST:DFC
RST:DUI
RST:DUIC
RST:HSD
RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC
```

Output Messages

```
DGN-AUDIT
DGN-CU
DGN-CU,MASC
DGN-DFC
DGN-DUIC
DGN-HSDC
DGN-IOP
DGN-MHD
DGN-MTC
DGN-MTTYC
DGN-SCSDC
DGN-SDLC
DGN-TTYC
OP-DMQ
REPT-ADPAB
```

SEE PROPRIETARY NOTICE ON COVER PAGE

```
REPT-AUTORST
RMV-CU
RMV-DFC
RMV-DUI
RMV-DUIC
RMV-HSD
RMV-HSDC
RMV-IOP
RMV-MHD
RMV-MT
RMV-MTC
RMV-MTTY
RMV-MTTYC
RMV-ROP
RMV-SBUS
RMV-SCC
RMV-SCSDC
RMV-SDL
RMV-SDLC
RMV-TTY
RMV-TTYC
RST-CU
RST-DFC
RST-DUI
RST-DUIC
RST-HSD
RST-HSDC
RST-IOP
RST-MHD
RST-MT
RST-MTC
RST-MTTY
RST-MTTYC
RST-ROP
RST-SBUS
RST-SCC
RST-SCSDC
RST-SDL
RST-SDLC
RST-TTY
RST-TTYC
```

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-ADP,AUT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT ADP AUTORST THRESHOLD EXCEEDED FOR` *a b* [*c*] [*d*]

2. REASON FOR OUTPUT

To report that the specified faulty hardware unit or community of units has exceeded its error threshold. The automatic diagnostic process (ADP) will no longer attempt to diagnose or restore the unit or community of units. The maximum number of restorations allowed is found in the max_restorable field in the ucbdyn form in the ECD.

NOTE: The ucbdyn form is a review-only form.

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

c = Subunit name.

d = Subunit number.

4. ACTION TO BE TAKEN

Manual diagnosis and restoration of the unit is required. This can be accomplished by using the `RST` input message for a restoration on a specified unit with or without running diagnostics. The `DGN` input command will run diagnostics on the specified unit with no restoration.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 405.

Input Messages
`DGN:CU`
`DGN:DFC`
`DGN:DUIC`
`DGN:HSDC`
`DGN:MHD`
`DGN:MTC`
`DGN:MTTYC`

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```
DGN:SCSDC
DGN:SDLC
DGN:TTYC
RST:CU
RST:DFC
RST:DUI
RST:DUIC
RST:HSD
RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC
```

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-ADP,INHIBIT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT ADP INHIBIT ACTIVE` *a b* [*c*] [*d*]

2. REASON FOR OUTPUT

To report that the automatic diagnostic process (ADP) attempted to diagnose and restore the specified hardware unit or community but was inhibited from doing so by the diagnostics subsystem (MIRA).

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

c = Subunit name.

d = Subunit number.

4. ACTION TO BE TAKEN

Manual action is required to diagnose, repair, and restore the unit to service. Diagnostic inhibit status can be determined via the `OP:DMQ` input message. The diagnostic inhibit on ADP can be allowed via the `ALW:DMQ` input message.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 405.

Input Messages
`ALW:DMQ`
`DGN:CU`
`DGN:DFC`
`DGN:DUIC`
`DGN:HSDC`
`DGN:MHD`
`DGN:MT`
`DGN:MTC`
`DGN:MTTYC`
`DGN:SCSDC`

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DGN:SDLC
DGN:TTYC
INH:DMQ
OP:DMQ
RST:CU
RST:DFC
RST:DUI
RST:DUIC
RST:HSD
RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC

Output Messages

DGN-AUDIT
DGN-CU
DGN-CU,MASC
DGN-DFC
DGN-DUIC
DGN-HSDC
DGN-IOP
DGN-MHD
DGN-MT
DGN-MTC
DGN-MTTYC
DGN-SCSDC
DGN-SDLC
DGN-TTYC
DGN-TTYC
OP-DMQ
REPT-ADP
REPT-ADPAB
REPT-AUTORST
REPT-DMQ
RMV-CU
RMV-DFC
RMV-DUI
RMV-DUIC

SEE PROPRIETARY NOTICE ON COVER PAGE

```
RMV-HSD
RMV-HSDC
RMV-IOP
RMV-MHD
RMV-MT
RMV-MTC
RMV-MTTY
RMV-MTTYC
RMV-ROP
RMV-SBUS
RMV-SCC
RMV-SCSDC
RMV-SDL
RMV-SDLC
RMV-TTY
RMV-TTYC
RST-SBUS
RST-MTTYC
RST-TTYC
RST-CU
RST-MT
RST-DUI
RST-SCC
RST-IOP
RST-MTTY
RST-DUIC
RST-MTC
RST-MHD
RST-SDLC
RST-ROP
RST-SDL
RST-HSD
RST-TTY
RST-DFC
RST-SCSDC
RST-HSDC
```

ID . . . . . REPT-ADP,INTER
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT ADP INTERFACE ERROR` *a* [*b*][*c*][*d*][*e*]

2. REASON FOR OUTPUT

To report that the automatic diagnostic process (ADP) has encountered a problem interfacing with another part of the UNIX® RTR system while attempting to restore a hardware unit or community of units.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes:

1 — `ADP` could not open the equipment configuration data base (ECD).

2 — `ADP` could not obtain a unit control block (UCB).

3 — `ADP` could not set a value in a UCB.

4 — `ADP` could not enable messages.

5 — `ADP` could not send a message to the port that is assigned to the maintenance input request administrator (MIRA).

6 — `MIRA` could not execute a request that was sent to it by `ADP`.

7 — `ADP` could not retrieve an IOP peripheral controller (IOP PC) UCB.

b = Unit name.

c = Unit number.

d = Subunit name.

e = Subunit number.

4. ACTION TO BE TAKEN

For error code 6, use the `OP:DMQ` input message to determine the status of the `MIRA` process. If automatic diagnostics are inhibited in `MIRA`, the `ALW:DMQ` input message may be used to remove the inhibit. If the problem persists, obtain technical assistance.

5. ALARMS

None. This automatically-generated report is for information only.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Key
There is an OMDB key of 405.

Input Messages
ALW:DMQ
INH:DMQ
OP:DMQ

Output Messages
DGN-AUDIT
DGN-CU
DGN-CU,MASC
DGN-DFC
DGN-DUIC
DGN-HSDC
DGN-IOP
DGN-MHD
DGN-MT
DGN-MTC
DGN-MTTYC
DGN-SCSDC
DGN-SDLC
DGN-TTYC
DGN-TTYC
OP-DMQ
REPT-ADP
REPT-ADPAB
REPT-AUTORST
REPT-DMQ
RMV-CU
RMV-DFC
RMV-DUI
RMV-DUIC
RMV-HSD
RMV-HSDC
RMV-IOP
RMV-MHD
RMV-MT
RMV-MTC
RMV-MTTY
RMV-MTTYC
RMV-ROP
RMV-SBUS
RMV-SCC
RMV-SCSDC
RMV-SDL
RMV-SDLC
RMV-TTY

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```
RMV-TTYC
RST-SBUS
RST-MTTYC
RST-TTYC
RST-CU
RST-MT
RST-DUI
RST-SCC
RST-IOP
RST-MTTY
RST-DUIC
RST-MTC
RST-MHD
RST-SDLC
RST-ROP
RST-SDL
RST-HSD
RST-TTY
RST-DFC
RST-SCSDC
RST-HSDC
```

ID . . . . . REPT-ADPAB-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT ADPAB MAJOR ALARM RESTORE FAILURE`
`FOR` *a b* [*c*] [*d*]

[2] `REPT ADPAB MAJOR ALARM RESTORE FAILURE`
`FOR` *a b* [*c*] [*d*]

2. REASON FOR OUTPUT

The automatic diagnostic process (ADP) After Boot (AB) branch was unable to restore a hardware unit left out of service (OOS) after a bootstrap. ADPAB will no longer attempt to diagnose or restore the hardware unit or community.

Format 1 is output when the hardware unit or community is essential.

Format 2 is output when the hardware unit or community is a unit or community whose top unit is an input/output processor (IOP).

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

c = Subunit name.

d = Subunit number.

4. ACTION TO BE TAKEN

If the hardware unit or community actually failed the restore, manual action is required to diagnose, repair, and restore the hardware unit or community to service.

The maintenance input request administration (MIRA) process might not start or complete ADPAB's restore requests for one of the following reasons (use the `OP:DMQ` input message to check the deferred maintenance queue [DMQ]):

— The DMQ already has a restore request for the hardware unit, community, or top unit. MIRA canceled ADP's restore request as a duplicate.

— Request source ADP is inhibited in the DMQ. Determine why ADP was inhibited and, if practical, use the `ALW:DMQ` input message to remove the inhibit.

— An initialization interval is in the progress. MIRA aborted tasks in the active queue. Tasks in the waiting queue are started at the end of the initialization interval. ADP may generate another restore request.

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— ADP's internal request timer may have expired if there is a large number of manual requests and/or there is a high system load. ADP's request might still be in the DMQ. MIRA defers ADP requests in favor of manual requests, and part of the active queue is for manual requests only.

Request a restore on the hardware unit or community if the hardware unit, community, or top unit does not have a restore request in the queue. No further action is required if the restore is successful.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 470.
Format 2 has an OMDB key of 471.

Input Messages

```
ALW:DMQ
DGN:CU
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:MHD
DGN:MT
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
OP:DMQ
RST:CU
RST:DFC
RST:DUI
RST:DUIC
RST:HSD
RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
```

SEE PROPRIETARY NOTICE ON COVER PAGE

RST:TTY
RST:TTYC

Output Messages
DGN-AUDIT
DGN-CU
DGN-CU,MASC
DGN-DFC
DGN-DUIC
DGN-HSDC
DGN-IOP
DGN-MHD
DGN-MT
DGN-MTC
DGN-MTTYC
DGN-SCSDC
DGN-SDLC
DGN-TTYC
DGN-TTYC
OP-DMQ
REPT-ADP
REPT-AUTORST
RMV-CU
RMV-DFC
RMV-DUI
RMV-DUIC
RMV-HSD
RMV-HSDC
RMV-IOP
RMV-MHD
RMV-MT
RMV-MTC
RMV-MTTY
RMV-MTTYC
RMV-ROP
RMV-SBUS
RMV-SCC
RMV-SCSDC
RMV-SDL
RMV-SDLC
RMV-TTY
RMV-TTYC
RST-SBUS
RST-MTTYC
RST-TTYC
RST-CU
RST-MT
RST-DUI
RST-SCC
RST-IOP

```
RST-MTTY
RST-DUIC
RST-MTC
RST-MHD
RST-SDLC
RST-ROP
RST-SDL
RST-HSD
RST-TTY
RST-DFC
RST-SCSDC
RST-HSDC
```

ID . . . . . REPT-ADPAB-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `REPT ADPAB MAJOR ALARM RESTORE FAILURE`
`FOR` *a b* [*c*] [*d*]

[2] `REPT ADPAB MINOR ALARM RESTORE FAILURE`
`FOR` *a b* [*c*] [*d*]

[3] `REPT ADPAB - COMMAND LINE ERROR`

2. REASON FOR OUTPUT

The automatic diagnostic process (ADP) after boot (AB) branch was unable to restore a hardware unit left out of service (OOS) after a bootstrap. ADPAB will no longer attempt to diagnose or restore the hardware unit or community.

Format 1 is output when the hardware unit or community is essential.

Format 2 is output when the hardware unit or community is a unit or community whose top unit is an input/output processor (IOP).

Format 3 is output when there is an error with the wait time option is used to invoke adp.ab. The -w option is used when the application wants to extend the wait time before restoring the Units after an initialization without extending the initialization interval. If an other option is used then an error will occur. The range of the wait time is between 0 and 3600 seconds. If the option is under 0 seconds, the wait time will be set to 0 and this message will be output. If the option is over 3600 seconds, then the wait time will be set to 3600 seconds and this message will be output.

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

c = Subunit name.

d = Subunit number.

4. ACTION TO BE TAKEN

If the hardware unit or community actually failed the restore, manual action is required to diagnose, repair, and restore the hardware unit or community to service.

SEE PROPRIETARY NOTICE ON COVER PAGE

The maintenance input request administration (MIRA) process might not start or complete ADPAB's restore requests for one of the following reasons (use the OP:DMQ input message to check the deferred maintenance queue (DMQ)):

— The DMQ already has a restore request for the hardware unit, community, or top unit. MIRA canceled ADP's restore request as a duplicate.

— Request source ADP is inhibited in the DMQ. Determine why ADP was inhibited and, if practical, use the ALW:DMQ input message to remove the inhibit.

— An initialization interval is in the progress. MIRA aborted tasks in the active queue. Tasks in the waiting queue are started at the end of the initialization interval. ADP may generate another restore request.

— ADP's internal request timer may have expired if there is a large number of manual requests and/or there is a high system load. ADP's request might still be in the DMQ. MIRA defers ADP requests in favor of manual requests, and part of the active queue is for manual requests only.

Request a restore on the hardware unit or community if the hardware unit, community, or top unit does not have a restore request in the queue. No further action is required if the restore is successful.

For format 3 examine the ULARP record in the ecd that is used to create adp and correct the command line. If the -w option is used then it must include a value in the range of 0 o 3600.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 475.
Format 2 has an OMDB key of 476.
Format 3 has an OMDB key of 742.

Input Messages
ALW:DMQ
DGN:CU
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:MHD
DGN:MT
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
OP:DMQ
RST:CU

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RST:DFC
RST:DUI
RST:DUIC
RST:HSD
RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC

Output Messages

DGN-AUDIT
DGN-CU
DGN-CU,MASC
DGN-DFC
DGN-DUIC
DGN-HSDC
DGN-IOP
DGN-MHD
DGN-MT
DGN-MTC
DGN-MTTYC
DGN-SCSDC
DGN-SDLC
DGN-TTYC
DGN-TTYC
OP-DMQ
REPT-ADP
REPT-AUTORST
RMV-CU
RMV-DFC
RMV-DUI
RMV-DUIC
RMV-HSD
RMV-HSDC
RMV-IOP
RMV-MHD
RMV-MT
RMV-MTC
RMV-MTTY

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```
RMV-MTTYC
RMV-ROP
RMV-SBUS
RMV-SCC
RMV-SCSDC
RMV-SDL
RMV-SDLC
RMV-TTY
RMV-TTYC
RST-SBUS
RST-MTTYC
RST-TTYC
RST-CU
RST-MT
RST-DUI
RST-SCC
RST-IOP
RST-MTTY
RST-DUIC
RST-MTC
RST-MHD
RST-SDLC
RST-ROP
RST-SDL
RST-HSD
RST-TTY
RST-DFC
RST-SCSDC
RST-HSDC
```

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-ANALY,TLP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has nine formats.

[1] `REPT ANALY TLP NULL PACK LIST`

[2] `REPT ANALY TLP CANNOT FIND PACK LOCATION` *a*

[3] `REPT ANALY TLP UNABLE TO OPEN TLDB` *b*

[4] `REPT ANALY TLP UNABLE TO READ HEADER FROM DATABASE` *b*

[5] `REPT ANALY TLP ILLEGAL ARGUMENT` *c*

[6] `REPT ANALY TLP CONNSEG FAILED ERRNO` *d*

[7] `REPT ANALY TLP CANNOT OPEN INPUT FILE` *e*

[8] `REPT ANALY TLP CANNOT OPEN DIRECTORY ../datatbl/tlp/misc`

[9] `REPT ANALY TLP NO KEYS SET FOR INPUT TO TLP`

2. REASON FOR OUTPUT

To report error conditions encountered by a trouble locating process (TLP).

Format 1 is printed when a search of the trouble location database (TLDB) found no suspected faulty circuit packs. The fault signature from first failing phase is substantially different from fault signatures in the trouble location database file.

Format 2 is printed when a circuit-pack location cannot be found by the TLP.

Format 3 is printed when the `TLP` search program cannot open the trouble-locating database file associated with the diagnostic phase that failed.

Format 4 is printed when the trouble-locating database could be opened, but the header information was not there.

Format 5 is printed when the diagnostic monitor (DIAMON) passes an illegal argument to `TLP`.

Format 6 is printed when `TLP` cannot connect to the diagnostic control block segment.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 7 is printed when TLP cannot open the file created by the diagnostic control process, which contains the diagnostic fault signatures.

Format 8 is printed when the directory /diag/datatbl/tlp/misc cannot be opened. This directory contains the pack location file for each subunit.

Format 9 is printed when a diagnostic failure did not set any TLP keys and consequently sent a null signature to TLP.

3. VARIABLE FIELD DEFINITIONS

a = Pack number.

b = Pathname that specifies the filename of the TLDB.

c = Illegal argument passed by DIAMON to TLP.

d = Error code returned by the operating system call connseg. See the System Error Codes Output Appendix, SYSERR-APP.

e = Name of TLP file containing the diagnostic fault signatures.

4. ACTION TO BE TAKEN

Retry the request to determine if the condition is repeatable. If it is, perform the actions below appropriate for each output message format. If that fails to clear the problem, seek technical assistance.

For Formats 1, 2, 5, 6, and 7, check trouble location process file /diag/dgnc/tlp, and restore from backup file system.

Also, for Formats 5, 6, and 7, check diagnostic monitor process file /diag/dgnc/ppdiamon, and restore from backup file system.

In addition, for Format 2, check pack location file, and restore from backup file system. Pack location files are in /diag/datatbl/tlp/misc and are named p.*unit_number_number*. For example, p.cu.0_10 and p.dfc.21_22.

For Formats 1, 3, and 4, check TLDB file, and restore from backup file system. TLDB files are in directory /diag/datatbl/tlp/*unit*[*c*|*e*|*s*|*v*|*x*] and are named *unitphase*.db. For example: /diag/databl/tlp/dmac/dca10.db (see the *unit/subunit* UCB mv value and the tldb lines in the /diag/util/cu|pu/*unit* file for the TLDB directory).

For Formats 1 and 9, check the diagnostic data table file and offline main store file; if these are missing or corrupted, restore them from backup file system. Data table files are in directories under /diag/datatbl (see the *unit/subunit* UCB mv value and the dgn lines in the *unit/subunit* util file under /diag/util for the dpt file name, then the dpt file under /diag/dtp for the data table file names). Offline main store files are in directories under /diag/offcode/mas (see excofl statements in the diagnostic listing file to identify the offline main store files - executed).

For Format 8, verify that the directory and files exist and have correct permissions. Restore directory and files from backup file system, if necessary.

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5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
Formats 1, 8, and 9 have an OMDB key of 21.
Formats 2 and 6 have an OMDB key of 22.
Formats 3, 4, 5, and 7 have an OMDB key of 20.

Output Appendix
`SYSERR-APP`

Output Message
`ANALY-TLPFILE`

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ID . . . . . REPT-AUDSTAT-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1]
```
REPT AUDSTAT a
ROUTINE AUDIT SCHEDULING IS b
INHIBITED AND/OR BLOCKED AUDITS:
 AUDIT    AUDIT INSTANCES INHIBITED/BLOCKED
NAME    MBR  INH  NAME                 INH BLK
c    d  e  f          g  h
```

[2]
```
REPT AUDSTAT COMPLETED
ROUTINE AUDIT SCHEDULING IS b
NO INHIBITED OR BLOCKED AUDITS
```

[3]
```
REPT AUDSTAT ABORTED
ECD INTERFACE ERROR i [AUDIT RID j]
```

[4]
```
REPT AUDSTAT ABORTED
CANNOT OPEN OUTPUT FILE k
```

2. REASON FOR OUTPUT

Formats 1 and 2 print the status of audits controlled by the system integrity monitor (SIM). Inhibited audits whose mode permissions prevent them from executing in routine or software request modes will not appear in the output message, unless the blocking state causes the audit to appear. In this case, the inhibit source will be enclosed in parentheses.

Blocked audits whose mode permissions prevent them from executing in any mode will not appear in the output message.

Format 3 reports an equipment configuration database (ECD) interface error.

Format 4 reports an error when creating a temporary file.

3. VARIABLE FIELD DEFINITIONS

a = Output message status.

- `COMPLETED` — Last or only segment of message.
- `IN PROGRESS` — Intermediate segment(s) of message.
- `STARTED` — First segment of message.

b = Master audit inhibit status for all audits controlled by SIM. One of the following.

ALLOWED - Not inhibited.

AUTOMATICALLY INHIBITED

IN UNKNOWN STATE

MANUALLY INHIBITED

c = Audit name. This field is blank for all instances after the first.

d = Member number. This field is blank for all instances after the first.

e = Inhibit state of the audit.

MAN — Manual request.

AUTO — Automatic action.

??? — Unrecognized reason.

If the audit is not inhibited, this field is blank. This field is also blank for all instances after the first.

f = Instance name. This field may be blank.

g = Inhibit state of a given instance of the audit blank if the audit is not inhibited.

MAN — Manual request.

AUTO — Automatic request.

??? — Unrecognized reason.

h = Y if this instance of the audit is blocked. This field is blank if this instance of the audit is not blocked.

i = ECD interface error number.

10 — Cannot open audit record sequence.

11 — Cannot sequence through audit records.

20 — Cannot open audit instance record sequence.

21 — Cannot sequence through instance records.

30 — Cannot open audit instance record sequence.

31 — Cannot sequence through instance records.

j = Associated audit record ID (RID).

k = Name of temporary file.

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4. ACTION TO BE TAKEN

Use the OP:AUD input message to obtain additional status on the audits. Use the ALW:AUD input message to allow audits which are to be allowed.

5. ALARMS

None. This alarm is either a manually-requested report or an automatically-generated report for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 440.
Format 2 has an OMDB key of 441.
Format 3 has an OMDB key of 435.
Format 4 has an OMDB key of 438.

Input Messages
ALW:AUD
OP:AUD

Output Message
OP-AUD

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ID . . . . . REPT-AUDSTAT-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has five formats.

[1]
```
REPT AUDSTAT a
ROUTINE AUDIT SCHEDULING IS b
INHIBITED AND/OR BLOCKED AUDITS:
 AUDIT    AUDIT INSTANCES INHIBITED/BLOCKED
NAME    MBR  INH  NAME                 INH BLK
c    d   e   f        g   h
```

[2]
```
REPT AUDSTAT COMPLETED
ROUTINE AUDIT SCHEDULING IS b
NO INHIBITED OR BLOCKED AUDITS
```

[3]
```
REPT AUDSTAT ABORTED
ECD INTERFACE ERROR i [AUDIT RID j]
```

[4]
```
REPT AUDSTAT ABORTED
CANNOT OPEN OUTPUT FILE k
```

[5]
```
REPT AUDSTAT ABORTED  CANNOT WRITE OUTPUT FILE k
```

2. REASON FOR OUTPUT

Formats 1 and 2 print the status of audits controlled by the system integrity monitor (SIM). Inhibited audits whose mode permissions prevent them from executing in routine or software request modes will not appear in the output message, unless the blocking state causes the audit to appear. In this case, the inhibit source will be enclosed in parentheses.

Blocked audits whose mode permissions prevent them from executing in any mode will not appear in the output message.

Format 3 reports an equipment configuration database (ECD) interface error.

Format 4 reports an error when creating a temporary file.

Format 5 reports an error when writing to a temporary output file.

3. VARIABLE FIELD DEFINITIONS

a = Output message status.

- `COMPLETED` — Last or only segment of message.
- `IN PROGRESS` — Intermediate segment(s) of message.
- `STARTED` — First segment of message.

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b = Master audit inhibit status for all audits controlled by SIM. One of the following.

ALLOWED - Not inhibited.

AUTOMATICALLY INHIBITED

IN UNKNOWN STATE

MANUALLY INHIBITED

c = Audit name. This field is blank for all instances after the first.

d = Member number. This field is blank for all instances after the first.

e = Inhibit state of the audit.

MAN — Manual request.

AUTO — Automatic action.

??? — Unrecognized reason.

If the audit is not inhibited, this field is blank. This field is also blank for all instances after the first.

f = Instance name. This field may be blank.

g = Inhibit state of a given instance of the audit blank if the audit is not inhibited.

MAN — Manual request.

AUTO — Automatic request.

??? — Unrecognized reason.

h = Y if this instance of the audit is blocked. This field is blank if this instance of the audit is not blocked.

i = ECD interface error number.

10 — Cannot open audit record sequence.

11 — Cannot sequence through audit records.

20 — Cannot open audit instance record sequence.

21 — Cannot sequence through instance records.

30 — Cannot open audit instance record sequence.

31 — Cannot sequence through instance records.

j = Associated audit record ID (RID).

k = Name of temporary file.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

Use the OP:AUD input message to obtain additional status on the audits. Use the ALW:AUD input message to allow audits which are to be allowed.

5. ALARMS

None. This alarm is either a manually-requested report or an automatically-generated report for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 440.
Format 2 has an OMDB key of 441.
Format 3 has an OMDB key of 435.
Format 4 has an OMDB key of 438.
Format 5 has an OMDB key of 628.

Input Messages
ALW:AUD
OP:AUD

Output Message
OP-AUD

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ID . . . . . REPT-AUDSTAT-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1]
```
REPT AUDSTAT a
ROUTINE AUDIT SCHEDULING IS b
INHIBITED AND/OR BLOCKED AUDITS:
 AUDIT    AUDIT INSTANCES INHIBITED/BLOCKED
NAME    MBR  INH  NAME                 INH BLK
c    d   e  f        g   h
```

[2]
```
REPT AUDSTAT COMPLETED
ROUTINE AUDIT SCHEDULING IS b
```

[3] `REPT AUDSTAT ABORTED ECD INTERFACE ERROR i [AUDIT RID j]`

[4] `REPT AUDSTAT ABORTED CANNOT OPEN OUTPUT FILE k`

[5] `REPT AUDSTAT ABORTED CANNOT WRITE OUTPUT FILE k`

[6] `REPT AUDSTAT ABORTED CANNOT CREATE TEMPORARY FILE`

2. REASON FOR OUTPUT

Formats 1 and 2 print the status of audits controlled by the system integrity monitor (SIM). Inhibited audits whose mode permissions prevent them from executing in routine or software request modes will not appear in the output message, unless the blocking state causes the audit to appear. In this case, the inhibit source will be enclosed in parentheses.

Blocked audits whose mode permissions prevent them from executing in any mode will not appear in the output message.

Format 3 reports an equipment configuration database (ECD) interface error.

Format 4 reports an error when creating a temporary file.

Format 5 reports an error when writing to a temporary output file.

Format 6 reports an error when unable to create a uniquely named temporary file.

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3. VARIABLE FIELD DEFINITIONS

a = Output message status.

STARTED — First segment of message.

IN PROGRESS — Intermediate segment(s) of message.

COMPLETED — Last or only segment of message.

b = Master audit inhibit status for all audits controlled by SIM. One of the following.

ALLOWED - Not inhibited.

AUTOMATICALLY INHIBITED

IN UNKNOWN STATE

MANUALLY INHIBITED

c = Audit name. This field is blank for all instances after the first.

d = Member number. This field is blank for all instances after the first.

e = Inhibit state of the audit.

MAN — Manual request.

AUTO — Automatic action.

??? — Unrecognized reason.

If the audit is not inhibited, this field is blank. This field is also blank for all instances after the first.

f = Instance name. This field may be blank.

g = Inhibit state of a given instance of the audit blank if the audit is not inhibited.

MAN — Manual request.

AUTO — Automatic request.

??? — Unrecognized reason.

h = Y if this instance of the audit is blocked. This field is blank if this instance of the audit is not blocked.

i = ECD interface error number.

10 — cannot open audit record sequence.
11 — cannot sequence through audit records
20 — cannot open audit instance record sequence
21 — cannot sequence through instance records
30 — cannot open audit instance record sequence
31 — cannot sequence through instance records

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j = Associated audit record identification (RID).

k = Name of temporary file.

4. ACTION TO BE TAKEN

If Formats 1, 2, or 3 prints, use the `OP:AUD` input message to obtain additional status on the audits. Use the `ALW:AUD` input message to allow audits which are to be allowed.

Format 4 indicates all the inodes of the tmp file system are being used. Clean up unused files in the tmp file system using `CLR:FILESYS;FILE`.

Format 5 indicates all tmp file system space has been used. Clean up unused files in the tmp file system using `CLR:FILESYS;FILE`.

Format 6 indicates system resources do not permit the running of this command at this time; retry later. If command continues to fail, see technical assistance.

5. ALARMS

None. This alarm is either a manually-requested report or an automatically-generated report for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 440.
Format 2 has an OMDB key of 441.
Format 3 has an OMDB key of 435.
Format 4 has an OMDB key of 438.
Format 5 has an OMDB key of 628.
Format 6 has an OMDB key of 667.

Input Messages
`ALW:AUD`
`OP:AUD`
`CLR:F;FILE`

Output Message
`OP-AUD`

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ID . . . . . REPT-AUTORST-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT AUTORST FAILURE FOR` *a b* [*c*] [*d*]

2. REASON FOR OUTPUT

To report that the automatic diagnostic process (ADP) was unable to restore a faulty hardware unit.

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

c = Subunit name.

d = Subunit number.

4. ACTION TO BE TAKEN

Manual action is required to diagnose, repair, and restore the unit to service.

5. ALARMS

None.

6. REFERENCES

OMDB Key
This message has an OMDB key of 469.

Input Messages
`DGN:CU`
`DGN:DFC`
`DGN:DUIC`
`DGN:HSDC`
`DGN:MHD`
`DGN:MT`
`DGN:MTC`
`DGN:MTTYC`
`DGN:SCSDC`
`DGN:SDLC`
`DGN:TTYC`
`RST:CU`
`RST:DFC`
`RST:DUI`
`RST:DUIC`

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RST:HSD
RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC

Output Messages

DGN-AUDIT
DGN-CU
DGN-CU,MASC
DGN-DFC
DGN-DUIC
DGN-HSDC
DGN-IOP
DGN-MHD
DGN-MT
DGN-MTC
DGN-MTTYC
DGN-SCSDC
DGN-SDLC
DGN-TTYC
DGN-TTYC
REPT-ADP
REPT-ADPAB
RMV-CU
RMV-DFC
RMV-DUI
RMV-DUIC
RMV-HSD
RMV-HSDC
RMV-IOP
RMV-MHD
RMV-MT
RMV-MTC
RMV-MTTY
RMV-MTTYC
RMV-ROP
RMV-SBUS
RMV-SCC

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```
RMV-SCSDC
RMV-SDL
RMV-SDLC
RMV-TTY
RMV-TTYC
RST-SBUS
RST-MTTYC
RST-TTYC
RST-CU
RST-MT
RST-DUI
RST-SCC
RST-IOP
RST-MTTY
RST-DUIC
RST-MTC
RST-MHD
RST-SDLC
RST-ROP
RST-SDL
RST-HSD
RST-TTY
RST-DFC
RST-SCSDC
RST-HSDC
```

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-AUTORST-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT AUTORST FAILURE FOR` *a b* [*c*] [*d*]

2. REASON FOR OUTPUT

To report that the automatic diagnostic process (ADP) was unable to restore a faulty hardware unit, and that it will no longer attempt to diagnose or restore the specified hardware unit or community.

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

c = Subunit name.

d = Subunit number.

4. ACTION TO BE TAKEN

Manual action is required to diagnose, repair, and restore the unit to service.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 474.

Input Messages
`DGN:CU`
`DGN:DFC`
`DGN:DUIC`
`DGN:HSDC`
`DGN:MHD`
`DGN:MT`
`DGN:MTC`
`DGN:MTTYC`
`DGN:SCSDC`
`DGN:SDLC`
`DGN:TTYC`
`RST:CU`
`RST:DFC`

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RST:DUI
RST:DUIC
RST:HSD
RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC

Output Messages
DGN-AUDIT
DGN-CU
DGN-CU,MASC
DGN-DFC
DGN-DUIC
DGN-HSDC
DGN-IOP
DGN-MHD
DGN-MT
DGN-MTC
DGN-MTTYC
DGN-SCSDC
DGN-SDLC
DGN-TTYC
DGN-TTYC
REPT-ADP
REPT-ADPAB
RMV-CU
RMV-DFC
RMV-DUI
RMV-DUIC
RMV-HSD
RMV-HSDC
RMV-IOP
RMV-MHD
RMV-MT
RMV-MTC
RMV-MTTY
RMV-MTTYC
RMV-ROP

SEE PROPRIETARY NOTICE ON COVER PAGE

```
RMV-SBUS
RMV-SCC
RMV-SCSDC
RMV-SDL
RMV-SDLC
RMV-TTY
RMV-TTYC
RST-SBUS
RST-MTTYC
RST-TTYC
RST-CU
RST-MT
RST-DUI
RST-SCC
RST-IOP
RST-MTTY
RST-DUIC
RST-MTC
RST-MHD
RST-SDLC
RST-ROP
RST-SDL
RST-HSD
RST-TTY
RST-DFC
RST-SCSDC
RST-HSDC
```

Practice 254-301-812 *Control Unit Trouble Clearing*

ID . . . . . REPT-BAD,ALIGN
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . EIH

1. FORMAT

```
REPT BAD ALIGNMENT ON MEMORY REFERENCE X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e


            SAVE STATE
PA: gggggggg  PSW: hhhhhhhh  PSBR: iiiiiii  SSBR: jjjjjjj

           GENERAL REGISTERS
 0: kkkkkkkk   1: kkkkkkkk   2: kkkkkkkk   3: kkkkkkkk
 4: kkkkkkkk   5: kkkkkkkk   6: kkkkkkkk   7: kkkkkkkk
 8: kkkkkkkk   9: kkkkkkkk   A: kkkkkkkk   B: kkkkkkkk
 C: kkkkkkkk   D: kkkkkkkk   E: kkkkkkkk   F: kkkkkkkk
UTILITY ID: lllllll       PROCESS NUMBER: mmmmmmmm

REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

To indicate software fault; an instruction executed with wrong address (for example, full-word instruction executed with half-word address).

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in the form `mm/dd/yy hh:mm:ss`.

g = The program address at the time of initialization (in hexadecimal). For software-requested initializations, this is the address of the `PHASE OST` and NOT the address where the problem was detected.

h = The processor status word (in hexadecimal). Among the information it contains are the execution level and the processor mode, that is, kernel mode, kernel process, supervisor process, or user process. See the *System Maintenance Manual*, Appendix P.

i = The contents of the primary segment base register (in hexadecimal).

SEE PROPRIETARY NOTICE ON COVER PAGE

j = The contents of the secondary segment base register (in hexadecimal).

k = The contents of the 16 general purpose registers (in hexadecimal).

R9: argument pointer
RA: frame pointer
RB: stack pointer

l = Process utility ID (in hexadecimal). See the *System Maintenance Manual* Process / Problem Table.

m = Process number (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the CU interrupt.

4. ACTION TO BE TAKEN

Forward the software log entry information to the technical assistance organization.

5. ALARMS

None.

6. REFERENCES

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-BAD,OST
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . EIH

1. FORMAT

```
REPT BAD OST X'a
FAULTY UNIT:    CU b
TIME OF ERROR: c


            SAVE STATE
PA: dddddddd  PSW: eeeeeeee  PSBR: ffffffff  SSBR: gggggggg


          GENERAL REGISTERS
 0: hhhhhhhh   1: hhhhhhhh   2: hhhhhhhh   3: hhhhhhhh
 4: hhhhhhhh   5: hhhhhhhh   6: hhhhhhhh   7: hhhhhhhh
 8: hhhhhhhh   9: hhhhhhhh   A: hhhhhhhh   B: hhhhhhhh
 C: hhhhhhhh   D: hhhhhhhh   E: hhhhhhhh   F: hhhhhhhh
UTILITY ID: iiiiiiii       PROCESS NUMBER: jjjjjjjj


OST CODE: kkkkkkkk
OST ARGUMENTS:
ARG1: llllllll  ARG2: llllllll  ARG3: llllllll  ARG4: llllllll
ARG5: llllllll  ARG6: llllllll  ARG7: llllllll
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

The kernel has determined that a process has attempted an operating system trap (OST) with a bad argument.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report.

b = Control unit (CU) member number.

c = Time in the form `mm/dd/yy hh:mm:ss`.

d = The program address at the time of error interrupt (in hexadecimal). For software-requested initializations this is the address of the `PHASE OST` and NOT the address where the problem was detected.

e = The processor status word (in hexadecimal). Among the information it contains are the execution level and the processor mode, that is, kernel mode, kernel process, supervisor process, or user process. See the *System Maintenance Manual*, Appendix P.

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f = The contents of the primary segment base register (in hexadecimal).

g = The contents of the secondary segment base register (in hexadecimal).

h = The contents of the 16 general purpose registers (in hexadecimal).

R9: argument pointer
RA: frame pointer
RB: stack pointer

i = Process utility ID (in hexadecimal). See the *System Maintenance Manual* Process / Problem Table.

j = Process number (in hexadecimal).

k = OST code (in hexadecimal).

l = OST arguments (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time the error interrupt.

4. ACTION TO BE TAKEN

Save the read-only printer (ROP) output, note the UID of the process that was reported and inform the next level of support. This is a software problem and requires no diagnostic or board replacements.

5. ALARMS

None.

6. REFERENCES

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-BAD,PRTY-DIO
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . EIH

1. FORMAT

```
REPT BAD PARITY ON DIO BUS X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e
DMA ADDRESS:  fffffffff  DMA STATUS REGISTER:  gggggggg
h
CHANNEL ADDRESS: iiiiiiii CHANNEL STATUS REGISTER: jjjjjjjj
DMA RAM:  kkkkkkkk  llllllll  mmmmmmmm  nnnnnnnn
DMA STORE DATA REGISTER:  oooooooo  DMA INCREMENTOR:  pppppppp
DMA BUFFER REGISTER:  qqqqqqqq
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

The direct memory access controller (DMAC) received bad parity from the named CHANNEL ADDRESS device on data destined for the main memory during a direct memory access (DMA) transfer.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in the form mm/dd/yy hh:mm:ss.

f = Input/output address of the DMA DMAC encountering the fault (in hexadecimal).

g = DMA status register (in hexadecimal). See the *System Maintenance Manual*, Appendixes C and D.

h = For Model 1:

DMA CHANNEL STATUS REGISTER: *xxxxxxxx*

For Model 2:

CHANNEL DATA REGISTER: *yyyyyyyy*

i = Input/output address of the channel that caused the problem (in hexadecimal).

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j = Status of the DMA channel (in hexadecimal). This is the dual serial channel register (DSCH). See the *System Maintenance Manual*, Appendix E.

k = First word entry in the DMA RAM for the device that failed (in hexadecimal).

l = Second word entry in the DMA RAM for the device that failed (in hexadecimal).

m = Third word entry in the DMA RAM for the device that failed (in hexadecimal).

n = Fourth word entry in the DMA RAM for the device that failed (in hexadecimal).

o = The contents of the DMA store data register (in hexadecimal).

p = The contents of the DMA incrementor (in hexadecimal).

q = The contents of the DMA buffer register (in hexadecimal).

x = Status of the channel under the DMAC that encountered the fault (in hexadecimal). See the *System Maintenance Manual*, Appendix B.

y = Contents of the faulted channels data register (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Run diagnostics on the indicated unit.

5. ALARMS

None.

6. REFERENCES

Output Message
DGN:UNIT

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-BAD,PRTY-DMA
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . EIH

1. FORMAT

```
REPT BAD PARITY ON DMA READ  X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e
DMA ADDRESS:  ffffffff  DMA STATUS REGISTER:  gggggggg
DMA RAM:  hhhhhhhh  iiiiiiii  jjjjjjj  kkkkkkkk
DMA STORE DATA REGISTER:  lllllll  DMA INCREMENTOR:  mmmmmmmm
DMA BUFFER REGISTER:  nnnnnnnn
o
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

The direct memory access (DMA) controller (DMAC) detected bad parity on its internal bus. This can be caused by a DMAC failure or a request from a device that has not had its DMAC RAM block initialized.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in the form `mm/dd/yy hh:mm:ss`.

f = Input/output address of the DMAC encountering the fault (in hexadecimal).

g = The contents of the DMA status register (in hexadecimal). See the *System Maintenance Manual*, Appendixes C and D.

h = First word entry in the DMA RAM for the device that failed (in hexadecimal).

i = Second word entry in the DMA RAM for the device that failed (in hexadecimal).

j = Third word entry in the DMA RAM for the device that failed (in hexadecimal).

k = Fourth word entry in the DMA RAM for the device that failed (in hexadecimal).

l = Internal DMAC register contents (in hexadecimal).

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m = Internal DMAC register contents (in hexadecimal).

n = Internal DMAC register contents (in hexadecimal).

o = For Model 1:

```
CHANNEL DATA REGISTER:    xxxxxxxx
```

For Model 2:

a blank line

x = Contents of the faulted channels data register (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Run diagnostics on the indicated unit.

5. ALARMS

None.

6. REFERENCES

Output Message
DGN:UNIT

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-BDG
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has five formats.

[1] `REPT BDG CANNOT CLOSE DEVICE` *a* `STATUS` *b*

[2] `REPT BDG CANNOT OPEN DEVICE` *a* `STATUS` *b*

[3] `REPT BDG WRONG FILE TYPE` *a*

[4] `REPT BDG UNEXPECTED ACK RECEIVED FROM` *c*

[5] `REPT BDG FATAL FAULT CODE` *d* `PA` *e*

2. REASON FOR OUTPUT

To report an error condition or a fault condition resulting from the BDG process execution.

3. VARIABLE FIELD DEFINITIONS

a = Device name.

b = System error code. See the System Error Codes Appendix, `SYSERR-APP`.

c = Process ID.

d = Fault code.

e = Program address where the fault occurred.

4. ACTION TO BE TAKEN

If Formats 2 through 5 print, or if Format 1 prints repeatedly, seek technical assistance.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Formats 1 through 4 have an OMDB key of 303.
Format 5 has an OMDB key of 311.

Output Appendix
SYSERR-APP

ID . . . . . REPT-BWMINT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT BWMINT` *a*

2. REASON FOR OUTPUT

To report error messages when errors occur during a field update.

3. VARIABLE FIELD DEFINITIONS

a = Describes the specific error that occurred. See the Field Update Error Codes Output Appendix, `FUEC-APP`, for explanations of error codes which may appear in error messages.

4. ACTION TO BE TAKEN

The error should be corrected and the field update continued. If the error cannot be corrected, the update should then be reset. If the update cannot be reset, it must be omitted before another update can be applied.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

Output Appendix
`FUEC-APP`

Input Messages
`UPD:APPLY;BYTER`
`UPD:APPLY;FILER`
`UPD:APPLY;FUNCR`
`UPD:BKOUT`
`UPD:RESET`

Output Message
`UPD-REPT`

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-CCIO,CMD
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . EIH

1. FORMAT

```
REPT CCIO - COMMAND FAILURE X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e


            SAVE STATE
PA: gggggggg  PSW: hhhhhhhh  PSBR: iiiiiii  SSBR: jjjjjjj


           GENERAL REGISTERS
 0: kkkkkkkk   1: kkkkkkkk   2: kkkkkkkk   3: kkkkkkkk
 4: kkkkkkkk   5: kkkkkkkk   6: kkkkkkkk   7: kkkkkkkk
 8: kkkkkkkk   9: kkkkkkkk   A: kkkkkkkk   B: kkkkkkkk
 C: kkkkkkkk   D: kkkkkkkk   E: kkkkkkkk   F: kkkkkkkk
UTILITY ID: lllllll       PROCESS NUMBER: mmmmmmmm

REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

A second programmed input/output order was sent to the direct memory access controller (DMAC) before the first one was completed.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in the form `mm/dd/yy hh:mm:ss`.

g = The program address at the time of error interrupt (in hexadecimal). For software-requested initializations, this is the address of the `PHASE OST` and NOT the address where the problem was detected.

h = The processor status word (in hexadecimal). Among the information it contains are the execution level and the processor mode, that is, kernel mode, kernel process, supervisor process, or user process. See the *System Maintenance Manual*, Appendix P.

i = The contents of the primary segment base register (in hexadecimal).

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j = The contents of the secondary segment base register (in hexadecimal).

k = The contents of the 16 general purpose registers (in hexadecimal).

R9: argument pointer
RA: frame pointer
RB: stack pointer

l = Process utility ID (in hexadecimal). See the *System Maintenance Manual*, Process / Problem Table.

m = Process number (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time the error interrupt.

4. ACTION TO BE TAKEN

Run diagnostics on the indicated unit.

5. ALARMS

None.

6. REFERENCES

Output Message
`DGN:UNIT`

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-CCIO,DATA
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . EIH

1. FORMAT

```
REPT CCIO - DATA PARITY FAILURE X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e
DMA ADDRESS:  ffffffff  DMA STATUS REGISTER:  gggggggg
DMA RAM:  hhhhhhhh  iiiiiiii  jjjjjjjj  kkkkkkkk
DMA STORE DATA REGISTER:  lllllllll  DMA INCREMENTOR:  mmmmmmmm
DMA BUFFER REGISTER:  nnnnnnnn

REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

A command received by the direct memory access controller (DMAC) on a processor input/output (PIO) operation had bad parity.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in the form `mm/dd/yy hh:mm:ss`.

f = Input/output address of the DMAC encountering the fault (in hexadecimal).

g = Direct memory access (DMA) status register (in hexadecimal). See the *System Maintenance Manual*, Appendixes C and D.

h = First word entry in the DMA RAM for the device that failed (in hexadecimal).

i = Second word entry in the DMA RAM for the device that failed (in hexadecimal).

j = Third word entry in the DMA RAM for the device that failed (in hexadecimal).

k = Fourth word entry in the DMA RAM for the device that failed (in hexadecimal).

l = The contents of the internal DMAC register (in hexadecimal).

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m = The contents of the internal DMAC register (in hexadecimal).

n = The contents of the internal DMAC register (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time the error interrupt.

4. ACTION TO BE TAKEN

Run diagnostics on the indicated unit.

5. ALARMS

None.

6. REFERENCES

Output Message
`DGN:UNIT`

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID REPT-CD,CIA0
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `REPT C/D CIA CANNOT OPEN DEVICE` *a*

[2] `REPT C/D CIA CANNOT GET PROCESS ID OF DAP`

[3] `REPT C/D CIA CANNOT SEND A MESSAGE TO DAP`

2. REASON FOR OUTPUT

Format 1 informs the user that the current state of the switching control center (SCC) links indicates that the equipment configuration database (ECD) must be updated in order for the SCC to become active.

Formats 2 and 3 indicate that the critical indicators administrator (CIA) could not communicate with the display administration process (DAP).

3. VARIABLE FIELD DEFINITIONS

a = Device filename.

4. ACTION TO BE TAKEN

Format 1 prints when the status of the SCC links in the ECD is something other than `ACT`, `STBY`, `OOS` or `INIT`. If the SCC is not needed, use recent change/verify (RC/V) to delete the `ULARP` record for CIA to prohibit `ULARP` from trying to restart the CIA process. If the SCC link is needed, follow growth procedures to activate the link.

If Format 2 or Format 3 is output, seek technical assistance.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
Formats 1, 2, and 3 have an OMDB key of 273.

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-CD,DLGGETTY
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT C/D DLGGETTY CHANID FOUND IN LOGDEV RECORD
```

2. REASON FOR OUTPUT

To inform the user that the DLGGETTY process has encountered an error while trying to process initialization information for a control/display device. The messages will appear on the originating device only.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Seek technical assistance to verify correctness of channel ID field found in the logdev form for the dialogue device.

5. ALARMS

None.

6. REFERENCES

None.

ID . . . . . REPT-CD,ERROR-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has five formats.

[1] `REPT C/D ERROR 1` *a* [`PID` *b*] [*c*]

[2] `REPT C/D ERROR 2` *c d* [*e*]

[3] `REPT C/D ERROR 3` *f g*

[4] `REPT C/D ERROR 4` *h i* [`ERRNO` *j*] [*k*]

[5] `REPT C/D ERROR 5 1 DAP EXITING RECEIVED SIGNAL` *l*

2. REASON FOR OUTPUT

To inform the user that control/display (C/D) detected an exceptional condition while trying to process a message or poke request from the maintenance cathode ray terminal (CRT).

For Format 1, error types 1, 2, and 3 indicate severe problems in which the display administration process (DAP) died upon initialization and will have been restarted by `ULARP`. Error types 4, 5, 6, and 7 can be ignored unless persistent; if persistent, seek technical assistance.

Format 2 indicates that DAP is overloaded with outstanding writes. This may indicate an `IODRV` or system overload, or that more requests for change to displays are arriving than DAP can handle.

For Format 3, error types 1, 2, and 4 indicate that DAP could not allocate memory or process the `transtab` file, and that a default translation table will be used. Error type 3 indicates that `tty` information is missing for a particular terminal, and that DAP is using default information for the terminal.

For Format 4, error type 1 indicates that DAP could not open the translation table, and that a default is being used. Error type 2 indicates that DAP incurred a write error, and data for a terminal has been lost. Error types 9, 10, 11, and 13 indicate an error while attempting to attach a device. Error type 12 indicates that a problem occurred in finding or updating an indicator for a page. Error type 14 indicates that DAP was unable to request new memory to buffer output destined for a terminal, and that data has been lost.

Format 5 occurs when DAP dies from a signal, and can indicate a problem that should be noted.

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3. VARIABLE FIELD DEFINITIONS

Format 1

a = Error type.

1 — unable to attach to C/D port
2 — cannot enable message reception
3 — unable to get shared segment or fork/exec critical indicator administrator (CIA)
4 — invalid C/D administrative request received
5 — unable to send DAP status to application
6 — unable to send message to page owner
7 — invalid C/D poke operation request received

b = Process ID of the process which sent the bad message.

c = `APPLICATION NOTIFICATION FAILURE`.

Format 2

c = Error type.

2 — Write error

d = `DAP LOCAL DEVICE I/O BUFFER OVERFLOW` *e*

`DAP PROCESS I/O BUFFER OVERFLOW`

e = Device ID.

Format 3

f = Error type.

1 — file format error
2 — file read failure
3 — `gettrap` returned no data
4 — memory request failure

`If` *f* = 3:

g = Device ID.

If *f* = `1` or `2`:

g = File name.

Format 4

g = CANNOT ALLOCATE MEMORY FOR PAGE INITIALIZATION.

h = Error type.

NOTE: Although previously valid, error codes 3 through 8 are now obsolete.

1 — file open error.
2 — write error.
9 — attach settrap error
10 — attach gettrap error
11 — attach incore ECD error
12 — indicator operation error
13 — retrieve incore ECD device record error
14 — error when attempting to allocate memory

If *h* = 1:

i = File name.

If *h* = 14:

i = DAPMALLOC FAILED DATA LOST FOR DEVICE

k = Device ID.

Else:

i = Device ID.

j = System error code. See the System Error Codes Appendix, SYSERR-APP.

Format 5

l = Signal received.

4. ACTION TO BE TAKEN

For Format 1, error types 1, 2, and 3 indicate severe problems in which DAP died upon initialization, and will have been restarted by ULARP. Error types 4, 5, 6, and 7 can be ignored unless persistent; if persistent, seek technical assistance.

For Format 4, error types 9, 10, 11, and 13 indicate an error while attempting to attach a device. The terminal should be power cycled for these conditions. If the problem persists, seek technical assistance.

For Format 2 through 5, except where previously noted for Format 4, if the message is intermittent, take no action. If the message persists for a local terminal, power cycle the terminal. If it persists for a removed terminal, terminate and re-establish the terminal's connections.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
Formats 1 through 5 have an OMDB key of 175.

Output Appendix
SYSERR-APP

ID . . . . . REPT-CD,ERROR-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has five formats.

[1] `REPT C/D ERROR 1` *a* [`PID` *b*] [*c*]

[2] `REPT C/D ERROR 2` *c d* [*e*]

[3] `REPT C/D ERROR 3` *f g*

[4] `REPT C/D ERROR 4` *h i* [`ERRNO` *j*] [*k*]

[5] `REPT C/D ERROR 5 1 DAP EXITING RECEIVED SIGNAL` *l*

2. REASON FOR OUTPUT

To inform the user that control/display (C/D) detected an exceptional condition while trying to process a message or poke request from the maintenance cathode ray terminal (CRT).

For Format 1, error types 1, 2, and 3 indicate severe problems in which the display administration process (DAP) died upon initialization and has been restarted by `ULARP`. Error types 4 through 7 can be ignored unless persistent, which indicates technical assistance is needed.

Format 2 indicates that DAP is overloaded with outstanding writes. This may indicate an input/output driver or system overload, or that more requests for change to displays are arriving than DAP can handle.

For Format 3, error types 1, 2, and 4 indicate that DAP could not allocate memory or process the `transtab` file, and that a default translation table will be used. Error type 3 indicates that `tty` information is missing for a particular terminal, and that DAP is using default information for the terminal.

For Format 4, error types 3, 4, 5, and 7 indicate an error while attempting to attach a device. Error type 1 indicates that DAP could not open the translation table, and that a default is being used. Error type 2 indicates that DAP incurred a write error, and data for a terminal has been lost. Error type 6 indicates that a problem occurred in finding or updating an indicator for a page. Error type 8 indicates that DAP was unable to request new memory to buffer output destined for a terminal, and that data has been lost.

Format 5 occurs when DAP dies from a signal, and may indicate a problem that should be noted.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

Format 1

a = Error type.

1 — unable to attach to C/D port
2 — cannot enable message reception
3 — unable to get shared segment or fork/exec critical indicator administrator (CIA)
4 — invalid C/D administrative request received
5 — unable to send display administration process (DAP) status to application
6 — unable to send message to page owner
7 — invalid C/D poke operation request received

b = Process ID of the process which sent the bad message.

c = `APPLICATION NOTIFICATION FAILURE`.

Format 2

c = Error type.

`2` — write error

d = `DAP LOCAL DEVICE I/O BUFFER OVERFLOW` *e*

`DAP PROCESS I/O BUFFER OVERFLOW`

e = Device ID which is a single character (lower case letter) suffix representing a control display device. For example, if a logical device is defined as `/dev/cda`, then *a* is the device ID.

Format 3

f = Error type.

1 — file format error
2 — file read failure
3 — `gettrap` returned no data
4 — memory request failure

If *f* = `3`:

g = Device ID which is a single character (lower case letter) suffix representing a control display device. For example, if a logical device is defined as `/dev/cda`, then `a` is the device ID.

If *f* = `1` or `2`:

g = File name.

Else:

Format 4

g = CANNOT ALLOCATE MEMORY FOR PAGE INITIALIZATION.

h = Error type.

1 — file open error
2 — write error
3 — attach settrap error
4 — attach gettrap error
5 — attach incore ECD error
6 — indicator operation error
7 — retrieve incore ECD device record error
8 — error when attempting to allocate memory

If *h* = 1:

i = File name.

If *h* = 8:

i = DAPMALLOC FAILED DATA LOST FOR DEVICE

k = Device ID which is a single character (lower case letter) suffix representing a control display device. For example, if a logical device is defined as /dev/cda, then *a* is the device ID.

Else:

i = Device ID which is a single character (lower case letter) suffix representing a control display device. For example, if a logical device is defined as /dev/cda, then *a* is the device ID.

j = System error code. See the System Error Codes Output Appendix, SYSERR-APP.

Format 5

l = Signal received.

4. ACTION TO BE TAKEN

For Format 1, error types 1, 2, and 3 indicate severe problems in which DAP died upon initialization, and has been restarted by ULARP. Error types 4 through 7 can be ignored unless persistent, which indicates technical assistance is needed.

For Formats 2 through 5, except where noted for Format 4, if the message is intermittent, take no action. If the message persists for a local terminal, power cycle the terminal. If it persists for a removed terminal, terminate and re-establish the terminal's connections.

For Format 4, error types 3, 4, 5, and 7 indicate an error while attempting to attach a device. The terminal should be power cycled for these conditions. If the problem persists, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
Formats 1 through 5 have an OMDB key of 175.

Output Appendix
SYSERR-APP

ID . . . . . REPT-CD,GETTY-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `REPT C/D GETTY UNABLE TO RETRIEVE LCHAN FROM ENVIRONMENT`

[2] `REPT C/D GETTY UNABLE TO ACCESS ECD FOR` *a*

[3] `REPT C/D GETTY FAILED TO OPEN DEVICE` *a* `FOR WRITING`

[4] `REPT C/D GETTY UNABLE TO COMMUNICATE WITH DAP PORT` *b*

[5] `REPT C/D GETTY FOR DEVICE` *a* `FAILED TO CREATE` *c*

[6] `REPT C/D GETTY PATHNAME NOT IN THE ECD FOR` *a*

2. REASON FOR OUTPUT

To inform the user that the `CDGETTY` process has encountered an error while trying to process initialization information for control/display (C/D) devices following terminal restores. The messages may appear on the originating device, or the receive-only printer (ROP).

3. VARIABLE FIELD DEFINITIONS

a = Device ID which is a single character (lower case letter) suffix representing a control display device. For example, if a logical device is defined as `/dev/cda`, then *a* is the device ID.

b = Port ID.

c = Pathname of the process to be created.

4. ACTION TO BE TAKEN

Format 1 indicates that the UNIX® process `/prc/init` is not setting the proper environment for `getty`. Seek technical assistance.

Format 2 indicates that either it could not attach to the incore database or it failed to get the required record; the `getty` record, for example. Seek technical assistance.

Format 3 indicates that it cannot open the acknowledgment channel for the listed device. Seek technical assistance.

Format 4 indicates that the DAP process is not connected to its port. Seek technical assistance to verify that the DAP process is currently running.

Formats 5 and 6 indicate that they could not execute the shell listed in the `getty` record. Verify the correctness of the `getty` record in the incore database and seek technical assistance.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Formats 1, 2, 4, and 6 have an OMDB key of 273.
Formats 3 and 5 have an OMDB key of 313.

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ID . . . . . REPT-CD,GETTY-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has five formats.

[1] `REPT C/D GETTY UNABLE TO RETRIEVE LCHAN FROM ENVIRONMENT`

[2] `REPT C/D GETTY UNABLE TO ACCESS ECD FOR` *a*

[3] `REPT C/D GETTY UNABLE TO COMMUNICATE WITH DAP PORT` *b*

[4] `REPT C/D GETTY FOR DEVICE` *a* `FAILED TO CREATE` *c*

[5] `REPT C/D GETTY PATHNAME NOT IN THE ECD FOR` *a*

2. REASON FOR OUTPUT

To inform the user that the `CDGETTY` process has encountered an error while trying to process initialization information for `control/display` (C/D) devices following terminal restores. The messages may appear on the originating device, or the receive-only printer (ROP).

3. VARIABLE FIELD DEFINITIONS

a = Device ID which is a single character (lower case letter) suffix representing a control display device. For example, if a logical device is defined as `/dev/cda`, then *a* is the device ID.

b = Port ID.

c = Pathname of the process to be created.

4. ACTION TO BE TAKEN

Format 1 indicates that the UNIX® process `/prc/init` is not setting the proper environment for `getty`. Seek technical assistance.

Format 2 indicates that either it could not attach to the incore database or it failed to get the required record; the `getty` record, for example. Seek technical assistance.

Format 3 indicates that the DAP process is not connected to its port. Seek technical assistance to verify that the DAP process is currently running.

Formats 4 and 5 indicate that they could not execute the shell listed in the `getty` record. Verify the correctness of the `getty` record in the incore database and seek technical assistance.

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5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Formats 1, 2, 3, and 5 have an OMDB key of 273.
Format 4 has an OMDB key of 313.

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ID . . . . . REPT-CD,POKER
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has 13 formats.

[1] `REPT C/D POKER UNRECOGNIZED SIGNAL` *b* `ERRNO` *f*

[2] `REPT C/D POKER CANNOT OPEN` *c* `ERRNO` *f*

[3] `REPT C/D POKER GETPORT ERROR PORT` *d*
`ERRNO` *f*

[4] `REPT C/D POKER FAILED TO GET TTOPTS FOR` *e*
`ERRNO` *f*

[5] `REPT C/D POKER MESSAGE NOT RECEIVED BY DAP FOR DEVICE` *e*

[6] `REPT C/D POKER INVALID PAGENAME SPECIFIED IN THE ECD FOR DEVICE`

[7] `REPT C/D POKER PAGE OWNER FAILED TO CONNECT TO PORT` *d*

[8] `REPT C/D POKER DAP CANNOT ATTACH TO DEVICE` *e*

[9] `REPT C/D POKER FIFO WRITE ERROR, RTN =` *a* `ERRNO` *f*

[10] `REPT C/D POKER UNABLE TO SEND MSG ERRNO` *f*

[11] `REPT C/D POKER SWITCH DIVERT WRITE ERROR RTN` *a*

[12] `REPT C/D POKER OPENCH FAILURE FOR DEVICE` *e*

[13] `REPT C/D POKER CSOP FAILED TO CONNECT TO PORT` *d*

2. REASON FOR OUTPUT

To report errors detected by poker associated with control/display (C/D) devices.

Formats 1, 9, and 11 indicate errors in setting up or diverting output to a secondary reader (for example, RCV/ECD).

Formats 2, 4 through 8, 12, and 13 indicate poker initialization errors.

Format 10 indicates an error with sending poke input to DAP from a dialogue terminal.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

a = Failure return from `write()`.

b = Signal number.

c = File name.

d = Port number.

e = Device ID which is a single character (lower case letter) suffix representing a control/display device. For example, if a logical device is defined as `/dev/cda`, then *a* is the device ID.

f = System error numbers. See the System Error Codes Output Appendix, SYSERR-APP.

4. ACTION TO BE TAKEN

For Formats 1, 2, 5, and 7 through 11, an operating system function call is failing; seek technical assistance.

For Format 3, if DAP is running, execute menu 807 from the C/D update page to restart the poker. If DAP is not running, seek technical assistance.

For Format 4, seek technical assistance to verify correctness of `ttopt` form for this device.

For Format 6, seek technical assistance to verify correctness of pagename field found in the `getty` form for this device. If correct, take no action; message was the result of a request to display an uninitialized page at time of request.

For Format 12, seek technical assistance to verify correctness of channel ID field found in the `logdev` form for this device.

For Format 13, if CSOP is running, display page 103 and execute menu 807 to restart the poker. If CSOP is not running, seek technical assistance.

5. ALARMS

None. These automatically-generated reports are for information only.

6. REFERENCES

OMDB Keys
Formats 1 through 8, 11, and 12 have an OMDB key of 296.
Formats 9 and 10 have an OMDB key of 317.
Format 13 does not have an OMDB key.

Output Appendix
SYSERR-APP

SEE PROPRIETARY NOTICE ON COVER PAGE

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ID . . . . . REPT-CD,STARTER-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has 15 formats.

[1] `REPT C/D STARTER OPEN_I` *a* `ERRNO` *f*

[2] `REPT C/D STARTER OPEN_O` *b* `ERRNO` *f*

[3] `REPT C/D STARTER SIGNAL TO` *d* `FAILED ERRNO` *f*

[4] `REPT C/D STARTER DAP REQUEST FAILED PORT` *e*
`ERRNO` *f*

[5] `REPT C/D STARTER OPEN O_WRONLY FAILED` *a*
`ERRNO` *f*

[6] `REPT C/D STARTER TMP FILE SYSTEM NOT ACCESSIBLE`
[`ERRNO` *f*]

[7] `REPT C/D STARTER CHILD TERMINATION STATUS` *g* [`SIGNAL` *h*]

[8] `REPT C/D STARTER FAILED TO OPEN` *i* `ERRNO` *f*

[9] `REPT C/D STARTER FAILED TO EXECUTE` *c* `ERRNO` *f*

[10] `REPT C/D STARTER FAILED TO CREATE PIPE` *i* `ERRNO` *f*

[11] `REPT C/D STARTER FORK FAILED ERRNO` *f*

[12] `REPT C/D STARTER ALREADY ACTIVE STARTER ON` *j*

[13] `REPT C/D STARTER ARGUMENT ERROR`

[14] `REPT C/D STARTER ALREADY RUNNING ON TERMINAL` *j*

[15] `REPT C/D STARTER ERROR EXIT` *g* `ERRNO` *f*

2. REASON FOR OUTPUT

To report the control / display (C / D) starter process encountered an error while attempting to set up the device for a secondary input read process; for example, recent change and verify (RCV).

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

a = Input file name.

b = Output file name.

c = Pathname of secondary input read process.

d = Poker process ID.

e = Display administration process (DAP) port number.

f = System error number. See the System Error Codes Output Appendix, SYSERR.

g = Child's exit status.

h = Signal that terminated the child.

i = File name.

j = Device id.

4. ACTION TO BE TAKEN

For Formats 1, 2, 5, and 8 through 13, re-enter the menu and try to restart the STARTER process. If this fails again, seek technical assistance.

For Formats 3 and 4, if the message is printed for a local terminal, power cycle the terminal. If the message is printed for a remote terminal, terminate and re-establish the terminal's connection.

For Format 6, if system initialization is in progress, wait and re-enter the menu later to restart the STARTER process. If system initialization is not in progress, mount the /tmp filesystem or seek technical assistance.

Formats 7 and 15 indicate the child process of STARTER terminated abnormally. Re-enter the menu to restart the STARTER process.

Format 14 indicates that an active child process is running on the named terminal. Use the PF3 key to resume communication with that process.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
Formats 1 through 15 have an OMDB key of 275.

Output Appendix
SYSERR

ID . . . . . REPT-CD,STARTER-B
GENERIC . . . . . UNIX RTR R6.4, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has 11 formats.

[1] `REPT C/D STARTER SIGNAL TO` *d* `FAILED ERRNO` *f*

[2] `REPT C/D STARTER DAP REQUEST FAILED PORT` *e*
`ERRNO` *f*

[3] `REPT C/D STARTER TMP FILE SYSTEM NOT ACCESSIBLE`
[`ERRNO` *f*]

[4] `REPT C/D STARTER CHILD TERMINATION STATUS` *b*
[`SIGNAL` *g*]

[5] `REPT C/D STARTER FAILED TO OPEN` *a* `ERRNO` *f*

[6] `REPT C/D STARTER FAILED TO EXECUTE` *c* `ERRNO` *f*

[7] `REPT C/D STARTER FAILED TO CREATE PIPE` *a*
`ERRNO` *f*

[8] `REPT C/D STARTER FORK FAILED ERRNO` *f*

[9] `REPT C/D STARTER ALREADY ACTIVE STARTER ON` *h*

[10] `REPT C/D STARTER ARGUMENT ERROR`

[11] `REPT C/D STARTER ALREADY RUNNING ON TERMINAL` *h*

2. REASON FOR OUTPUT

To report the control / display (C / D) starter process encountered an error while attempting to set up the device for a secondary input read process; for example, recent change and verify (RCV).

3. VARIABLE FIELD DEFINITIONS

a = File name.

b = Child exit status.

c = Pathname of secondary input read process (RCV).

d = Poker process ID.

SEE PROPRIETARY NOTICE ON COVER PAGE

e = Display administration process (DAP) port number.

f = System error number. See the System Error Codes Output Appendix, SYSERR.

g = Signal that terminated the child.

h = Device ID which is a single character (lower-case letter) suffix representing a control display device. For example, if a logical device is defined as `/dev/cd`*a*, then *a* is the device ID.

4. ACTION TO BE TAKEN

For Formats 1 and 2, if the message is printed for a local terminal, power cycle the terminal. If the message is printed for a remote terminal, terminate and re-establish the terminal's connection.

For Format 3, if the system initialization is in progress, wait and re-enter the menu later to re-start the STARTER process. If system initialization is not in progress, mount the `/tmp` filesystem, or seek technical assistance.

Format 4 indicates the child process of STARTER terminated abnormally. Re-enter the menu to re-start the STARTER process.

For Formats 5 through 10, re-enter the menu to try to re-start the STARTER process. If this fails again, seek technical assistance.

Format 11 indicates that an active child process is running on the named terminal. Use the PF3 key to resume communication with that process.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
Formats 1 through 11 have an OMDB key of 275.

Output Appendix
SYSERR-APP

ID . . . . . REPT-CD,STARTER-C
GENERIC . . . . . UNIX RTR R21.3 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has 11 formats.

[1] `REPT C/D STARTER SIGNAL TO` *d* `FAILED ERRNO` *f*

[2] `REPT C/D STARTER DAP REQUEST FAILED PORT` *e*
`ERRNO` *f*

[3] `REPT C/D STARTER TMP FILE SYSTEM NOT ACCESSIBLE`
[`ERRNO` *f*]

[4] `REPT C/D STARTER CHILD TERMINATION` *c*
{`STATUS` *b* | `SIGNAL` *g*}

[5] `REPT C/D STARTER FAILED TO OPEN` *a* `ERRNO` *f*

[6] `REPT C/D STARTER FAILED TO EXECUTE` *c* `ERRNO` *f*

[7] `REPT C/D STARTER FAILED TO CREATE PIPE` *a*
`ERRNO` *f*

[8] `REPT C/D STARTER FORK FAILED ERRNO` *f*

[9] `REPT C/D STARTER ALREADY ACTIVE STARTER ON` *h*

[10] `REPT C/D STARTER ARGUMENT ERROR`

[11] `REPT C/D STARTER ALREADY RUNNING ON TERMINAL` *h*

2. REASON FOR OUTPUT

To report the control / display (C / D) starter process encountered an error while attempting to set up the device for a secondary input read process; for example, recent change and verify (RCV).

3. VARIABLE FIELD DEFINITIONS

a = File name.

b = Child exit status.

c = Pathname of secondary input read process.

d = Poker process ID.

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e = Display administration process (DAP) port number.

f = System error number. See the System Error Codes Output Appendix, SYSERR.

g = Signal that terminated the child.

h = Device ID which is a single character (lower-case letter) suffix representing a control display device. For example, if a logical device is defined as `/dev/cd`*a*, then *a* is the device ID.

4. ACTION TO BE TAKEN

For Formats 1 and 2, if the message is printed for a local terminal, power cycle the terminal. If the message is printed for a remote terminal, terminate and re-establish the terminal's connection.

For Format 3, if the system initialization is in progress, wait and re-enter the menu later to re-start the STARTER process. If system initialization is not in progress, mount the `/tmp` filesystem, or seek technical assistance.

Format 4 indicates the child process of STARTER terminated abnormally. If STATUS is specified, then refer to documentation for the child process. If SIGNAL is specified, then seek technical assistance.

For Formats 5 through 10, re-enter the menu to try to re-start the STARTER process. If this fails again, seek technical assistance.

Format 11 indicates that an active child process is running on the named terminal. Use the PF3 key to resume communication with that process.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
Formats 1 through 11 have an OMDB key of 275.

Output Appendix
SYSERR

ID . . . . . REPT-CFT,LIB-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has 13 formats.

[1] `REPT CFT LIB UNABLE TO OPEN AUTHORITY GROUPS FILE`

[2] `REPT CFT LIB AUTHORITY GROUPS FILE READ ERROR`

[3] `REPT CFT LIB AUTHORITY GROUPS FILE TOO MANY GROUPS`

[4] `REPT CFT LIB UNABLE TO OPEN AUTHORITY FILE`

[5] `REPT CFT LIB AUTHORITY FILE READ ERROR`

[6] `REPT CFT LIB UNABLE TO RETRIEVE DATE FORMAT FROM ECD`

[7] `REPT CFT LIB ILLEGAL DATE FORMAT IN ECD`

[8] `REPT CFT LIB UNABLE TO RETRIEVE IM FOR ECHO`

[9] `REPT CFT LIB CANNOT ACCESS ECD PDS ASSUMED`

[10] `REPT CFT LIB IA01 RMOVSEG FAILED ERRNO` *a*

[11] `REPT CFT LIB GETSEG FAILED ERRNO` *a*

[12] `REPT CFT LIB UNABLE TO PLACE INPUT MESSAGE IN ENVIRONMENT`

[13] `REPT CFT LIB CANNOT ACCESS ECD AUTHDEF RECORDS`

2. REASON FOR OUTPUT

To report a craft library (CFT LIB) related occurrence or error.

Format 1 indicates that the craft library could not access the file that contains the currently valid input message authority groups.

Format 2 indicates that the craft library encountered a read error when attempting to read the input message authority groups file.

Format 3 indicates that an error has been detected in the input message authority groups file. This can occur if there are too many authority groups specified (more than the defined maximum, currently 64) or if the wrong file is read.

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Format 4 indicates that the craft library could not access the file that contains the current assignments of authority groups to persons and terminals.

Format 5 indicates that the craft library encountered a read error when attempting to read the authority assignment file.

Format 6 indicates that the craft library could not retrieve the date format from the `eaiopt` record in the equipment configuration database (ECD).

Format 7 prints when the craft library detects an error in the layout of the date found in the `eaiopt` record in the ECD. The layout must include the desired position of the month (`m`), day (`d`), and year (`y`) with optional separators (for example, ":" or "-"). Some example layouts include: `m:d:y` and `d-m-y`.

Format 8 prints when the craft library is unable to retrieve an input message string from the calling process' environment.

Format 9 prints when the craft library is either unable to attach to the ECD or unable to read the `splrinfo` record in the ECD to determine whether the system is in PDS or MML mode. PDS mode is assumed.

Format 10 indicates that the craft library failed to remove the incore ECD data segment(s) from its address space.

Format 11 indicates that the craft library failed to add the incore ECD data segment(s) to its address space.

Format 12 indicates that the craft library failed to put the input message into the client process environment.

Format 13 indicates that the craft library failed in an attempt to attach to the ECD. As a result, the authority definition (`authdef`) records are not in effect.

3. VARIABLE FIELD DEFINITIONS

a = System error number. See the System Error Codes output appendix, SYSERR.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This alarm is a manually-requested report.

If a minor alarm occurs, take action as indicated in the report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Key(s)
Formats 1 through 5, 8, 10, 11, and 12 have an OMDB key of 290.
Formats 6, 7, 9, and 13 have an OMDB key of 291.

Output Appendix(es)
SYSERR

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ID . . . . . REPT-CFT,LIB-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has 13 formats.

[1] `REPT CFT LIB UNABLE TO OPEN AUTHORITY GROUPS FILE`

[2] `REPT CFT LIB AUTHORITY GROUPS FILE READ ERROR`

[3] `REPT CFT LIB AUTHORITY GROUPS FILE TOO MANY GROUPS`

[4] `REPT CFT LIB UNABLE TO OPEN AUTHORITY FILE`

[5] `REPT CFT LIB AUTHORITY FILE READ ERROR`

[6] `REPT CFT LIB UNABLE TO RETRIEVE DATE FORMAT FROM ECD` *a*

[7] `REPT CFT LIB ILLEGAL DATE FORMAT IN ECD`

[8] `REPT CFT LIB UNABLE TO RETRIEVE IM FOR ECHO`

[9] `REPT CFT LIB CANNOT ACCESS ECD PDS ASSUMED`

[10] `REPT CFT LIB IA01 RMOVSEG FAILED ERRNO` *b*

[11] `REPT CFT LIB GETSEG FAILED ERRNO` *b*

[12] `REPT CFT LIB UNABLE TO PLACE INPUT MESSAGE IN ENVIRONMENT`

[13] `REPT CFT LIB CLEARING SEMAPHORE`

2. REASON FOR OUTPUT

To report a craft library (CFT LIB) related occurrence or error.

Format 1 indicates that the craft library could not access the file that contains the currently valid input message authority groups.

Format 2 indicates that the craft library encountered a read error when attempting to read the input message authority groups file.

Format 3 indicates that an error has been detected in the input message authority groups file. This can occur if there are too many authority groups specified (more than the defined maximum, currently 91) or if the wrong file is read.

Format 4 indicates that the craft library could not access the file that contains the current assignments of authority groups to persons and terminals.

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Format 5 indicates that the craft library encountered a read error when attempting to read the authority assignment file.

Format 6 indicates that the craft library could not retrieve the date format from the `eaiopt` record in the equipment configuration database (ECD).

Format 7 prints when the craft library detects an error in the layout of the date found in the `eaiopt` record in the ECD. The layout must include the desired position of the month (`m`), day (`d`), and year (`y`) with optional separators (for example... ":", "-"). Some example layouts include: `m:d:y` and `d-m-y`.

Format 8 prints when the craft library is unable to retrieve an input message string from the calling process' environment.

Format 9 prints when the craft library is either unable to attach to the ECD or unable to read the `splrinfo` record in the ECD to determine whether the system is in PDS or MML mode. PDS mode will be assumed.

Format 10 indicates that the craft library failed to remove the incore ECD data segment(s) from its address space.

Format 11 indicates that the craft library failed to add the incore ECD data segment(s) to its address space.

Format 12 indicates that the craft library failed to put the input message into the client process environment.

Format 13 indicates that the craft library is releasing a locked semaphore.

3. VARIABLE FIELD DEFINITIONS

a = Reason for failure to obtain date format from the ECD.

- 1 = Could not attach ECD segment to process.
- 2 = Failure attaching to database.
- 3 = Could not get ECD origin.
- 4 = Could not get UCB record.
- 5 = Could not get IOPT record.
- 6 = Could not get EAIOPT record.
- 7 = Failure releasing database.
- 8 = Could not remove ECD segment from process.

b = System error number. See the System Error Codes Output Appendix, `SYSERR-APP`.

4. ACTION TO BE TAKEN

For Formats 1 through 12, no action is needed.

For Format 13, check the `/cdmp` directory for a dump file of the process that had the semaphore locked. If a file is present, save the file for future analysis.

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5. ALARMS

None. This alarm is a manually-requested report.

If a minor alarm occurs, take action as indicated in the report.

6. REFERENCES

OMDB Keys
Formats 1 through 5, 8, and 10 through 13 have an OMDB key of 290.
Formats 6, 7, and 9 have an OMDB key of 291.

Output Appendix
SYSERR-APP

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-CFTSHL
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has 13 formats.

[1] `REPT CFTSHL TERMINAL IN SERVICE *** f`
`CAPABILITY MODE / g`

[2] `REPT CFTSHL EOF ENCOUNTERED`

[3] `REPT CFTSHL UNABLE TO READ LINE a OF .pname file`
`INSTALL A .pname FILE in DIRECTORY i AND`
`SHELL WILL RECOVER`

[4] `REPT CFTSHL CANNOT CHANGE DIRECTORY TO b`

[5] `REPT CFTSHL SETGID TO c FAILED`

[6] `REPT CFTSHL SETUID TO d FAILED`

[7] `REPT CFTSHL CANNOT CREATE e AS ALTERNATE SHELL`

[8] `REPT CFTSHL INTERRUPT RECEIVED`

[9] `REPT CFTSHL INVALID ENVIRONMENT ARGUMENT PASSED`
`TO ALTERNATE SHELL`

[10] `REPT CFTSHL UNABLE TO READ LINE a OF .pname FILE FOR`
`ALTERNATE SHELL AND ENVIRONMENT ARGUMENT MISSING`

[11] `REPT CFTSHL CANNOT CREATE SEGMENT FOR INPUT AND OUTPUT`

[12] `REPT CFTSHL ON MTTY WILL USE DEFAULT .PNAME FILE`

[13] `REPT CFTSHL CRAFT SHELL IS IN LIMP CAPABILITY MODE`

2. REASON FOR OUTPUT

To report a CFTSHL-related occurrence or error. The messages may appear on the input (requesting) terminal, the receive-only printer (ROP), or both depending on the mode (terminal reading/background execution) of the CFTSHL. Some messages may be appended to an input command.

Format 1 indicates the CFTSHL is ready to accept input.

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Format 2 indicates the CFTSHL has been terminated.

Format 3 indicates a command has requested a change to an environment that does not exist in the .pname file. (This format is for LUCENT use only.)

Format 4 indicates a request to change an execution directory as a result of an environment change has not been honored. (This format is for LUCENT use only; occurs when cd command to variable *b* fails.)

Format 5 indicates an attempt to set the group ID for the CFTSHL failed. (This format is for LUCENT use only.)

Format 6 indicates an attempt to set the user ID of the CFTSHL failed. (This format is for LUCENT use only.)

Format 7 indicates the failure of an alternate shell process creation. (This format is for LUCENT use only.)

Format 8 prints as a result of encountering an interrupt. This interrupt usually occurs as a result of depressing the BREAK key.

Format 9 prints when CFTSHL is executed from another process (shell) and an improper environment is passed as argument two.

Format 10 prints when an alternate CFTSHL is invoked and the request environment cannot be read from the .pname file.

Format 11 prints when CFTSHL fails to allocate a memory segment for I/O buffer using RTR system call makeseg().

Format 12 prints when a CFTSHL is invoked for a maintenance terminal and the .pname file cannot be found in the current working directory. The CFTSHL will then use a default .pname file.

Format 13 indicates that the CFTSHL cannot attach to the *Input Message Catalog*.

3. VARIABLE FIELD DEFINITIONS

EOF = End of file.

a = Label of line.

b = Name of the requested directory.

c = Name of the requested group ID.

d = Name of the requested user ID.

e = Pathname of the alternate shell process.

f = CFTSHL capability mode: LIMP, PART or FULL.

g = Input message syntax: PDS or MML.

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4. ACTION TO BE TAKEN

For Format 3 the command or the `.pname` file is in error and must be corrected. For all other formats, escalate through appropriate channels.

5. ALARMS

None for Formats 1, 2, and 4 through 7. These reports are automatically generated for information only.

Action alarm for Formats 3, 9, and 10. Take action as indicated in the report.

Manual alarm for Format 8. This report is a result of manual input.

Minor alarm for Formats 11 and 13. Take action as indicated in the report.

Critical alarm for Format 12. Take immediate action as indicated in the report. Seek technical assistance if needed.

6. REFERENCES

OMDB Keys
Formats 11 and 13 have an OMDB key of 299.
Format 12 has an OMDB key of 298.

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-CONFIG
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT CONFIG FAULT TYPE` *a* `UNIT =` *b* `PID =` *c* `ASSERT =` *d*

[2] `REPT CONFIG FAULT TYPE` *a* `INACCESSIBLE RID =` *e* `PID =` *c*
`ASSERT =` *d*

2. REASON FOR OUTPUT

To report a fault condition in the configuration (`CONFIG`) library.

Format 1 is printed whenever the name of the unit can be determined. If not, Format 2 is printed.

3. VARIABLE FIELD DEFINITIONS

a = One or more fault types.

- `AMB` — could not allocate a message buffer
- `CI` — `CONFIG` internal failure
- `EA` — equipment configuration database (ECD) access problem
- `ED` — ECD data invalid
- `FSM` — could not fault a process or send a message to a process
- `IA` — possible invalid argument
- `PA` — plant measurements database access problem
- `PS` — unit in protected state

b = Name and number of unit.

c = Process number of the process which called the `CONFIG` function.

d = Identification number (ASSERT number) of the fault in `CONFIG`.

e = Record ID (RID) of the unit control block (UCB) record in the ECD of the unit.

4. ACTION TO BE TAKEN

Consider bootstrapping for fault types `EA`, `ED`, and `PA`. Fault types `AMB` and `FSM` suggest that the system is in overload. In all cases, save a copy of the output message and seek technical assistance.

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5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 447.
Format 2 has an OMDB key of 418.

ID . . . . . REPT-CONFIG,REC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT CONFIG RECONFIGURATION TYPE` *a* `UNIT` *b* `PID =` *c*

2. REASON FOR OUTPUT

To report a successfully executed reconfiguration requested by `CONFIG` when the indicated unit has exceeded an error threshold and cannot be removed or replaced.

3. VARIABLE FIELD DEFINITIONS

a = Reconfiguration type (or action).
SWCU - softswitch

b = Name and number of the unit causing reconfiguration.

c = Process ID of the process calling `CONFIG`.

4. ACTION TO BE TAKEN

The softswitch will eliminate the errors associated with the indicated unit only if the error sources are in the direct memory access (DMA) or the dial serial channel (DSCH) subunits of the now standby control unit (CU), or in the duplex dual serial bus selector (DDSBS) of the unit. If this is the case repair the appropriate DMA, DSCH, or DDSBS.

5. ALARMS

For a minor alarm, take action as indicated in the report.

6. REFERENCES

OMDB Key
This message has an OMDB key of 419.

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ID . . . . . REPT-CSOP-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT,VAR

1. FORMAT

This message has 54 formats.

[1] `REPT CSOP NO DEVICES IN CLASS` *e*

[2] `REPT CSOP PORT CONNECT FAILURE`

[3] `REPT CSOP UNABLE TO ACCESS` *c* `RECORDS IN ECD`

[4] `REPT CSOP UNABLE TO ALLOCATE TTY ENTRY FOR` *a*

[5] `REPT CSOP UNABLE TO ALLOCATE TTY LIST FOR CLASS` *e*

[6] `REPT CSOP UNABLE TO ATTACH TO ECD`

[7] `REPT CSOP UNABLE TO RETRIEVE GLOBAL DATA FROM ECD`

[8] `REPT CSOP CANNOT INITIALIZE PMS DATABASE`

[9] `REPT CSOP CANNOT ACCESS PMS DATABASE`

[10] `REPT CSOP CANNOT UPDATE THE PMS DATABASE`

[11] `REPT CSOP MASTER WORK QUEUE OVERLOAD ERROR`

[12] `REPT CSOP MASTER WORK QUEUE OVERLOAD CLEARED`

[13] `REPT CSOP MASTER WORK QUEUE ALLOCATION`
`FAILED---CSOP DYING`

[14] `REPT CSOP CANNOT READ DATABASE HEADER FROM` *f*

[15] `REPT CSOP CANNOT OPEN` *f*

[16] `REPT CSOP CANNOT CREATE DLGSOF DEV` *c*
`-NO SF_TEMP SOP`

[17] `REPT CSOP UNABLE TO ALLOCATE TTY ENTRY`
`FOR` *e* `---CSOP DYING`

[18] `REPT CSOP CANNOT CREATE SHARED SEGMENT---CSOP DYING`

[19] `REPT CSOP MESSAGE ENABLE FAILED---CSOP DYING`

SEE PROPRIETARY NOTICE ON COVER PAGE

[20] REPT CSOP PORT CONNECT FAILURE

[21] REPT CSOP CANNOT FREE OMDB SEGMENT

[22] REPT CSOP CANNOT CREATE NAMED OMDB SEGMENT

[23] REPT CSOP CANNOT INITIALIZE NAMED OMDB SEGMENT

[24] REPT CSOP CANNOT CREATE COMMON ENUM SEGMENT

[25] REPT CSOP CANNOT INITIALIZE COMMON ENUM SEGMENT

[26] REPT CSOP CANNOT CREATE OMDB BUFFER SEGMENT

[27] REPT CSOP CANNOT INITIALIZE OMDB BUFFER SEGMENT

[28] REPT CSOP CANNOT CHANGE PERMISSIONS TO R/W ON
NAMED OMDB SEGMENT

[29] REPT CSOP CANNOT GROW NAMED OMDB SEGMENT

[30] REPT CSOP BAD DEVICE DEFINITIONS IN ECD *d g*

[31] REPT CSOP CANNOT GET MEMORY TO SAVE STACK

[32] REPT CSOP Q SIZE NOT UPDATE -- MALLOC FAILURE

[33] REPT CSOP CANNOT GET PID OF RTS

[34] REPT CSOP CANNOT CHANGE Q SIZE
-- *h* MSGS IN THE Q --- TRY AGAIN

[35] REPT CSOP CANNOT ENTER *c* INTO DEVICE TABLE

[36] REPT CSOP CANNOT ENTER LOGFILE *c* INTO DEVICE TABLE

[37] REPT CSOP CANNOT FIND ACTIVE UCB FOR DEVICE *c*

[38] REPT CSOP CANNOT GET MDCT RECORD FOR *c*

[39] REPT CSOP DELETE DEVICE *c*

[40] REPT CSOP DEVICE *c* DOES NOT EXIST

[41] REPT CSOP FORK ERROR *c*

[42] REPT CSOP NEW DEVICE *c* DEFINED

[43] REPT CSOP SEND NEW CONFIG TO *c*

SEE PROPRIETARY NOTICE ON COVER PAGE

[44] REPT CSOP SOPMSG ERROR *c* NOT FOUND

[45] REPT CSOP UNABLE TO DEFINE NEW DEVICE *c*

[46] REPT CSOP UNABLE TO REMOVE UNKNOWN NEW DEVICE *c*

[47] REPT CSOP UNLINK FAILED FILE: *f*

[48] REPT CSOP EXEC FAILED FOR *i* (*c*)

[49] REPT CSOP FAILED TO OPEN /dev/rop0 ERRNO *j*

[50] REPT CSOP JOB LIST ERROR *k* NOT IN LIST FOR *c*

[51] REPT CSOP SOP EXIT CODE *j* PID *b* UNKN TTY

[52] REPT CSOP SENDW ERROR TO *b c* ERRNO *j*

[53] REPT CSOP OUTPUT ERROR *m j k c* NO ENTRY

[54] REPT CSOP CREATE *b l*

2. REASON FOR OUTPUT

To report errors detected by the spooler during initialization.

Format 1 prints if a class is defined that contains no output devices.

Format 2 prints if port 1 is not free. The coordinator of spooler output processor (CSOP) process will attempt to kill the process that is attached to port 1 and connect itself.

Format 4 prints if CSOP does not have enough memory to store the definition of an output device.

Format 5 prints when CSOP does not have enough memory to store the definition of a class.

Format 11 prints when CSOP is unable to queue incoming messages; therefore, messages will be lost. When Formats 21 through 26 print, CSOP messages may then appear in primitive mode.

Formats 31 through 54 will appear only in the spooler log, not on the receive-only printer (ROP).

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3. VARIABLE FIELD DEFINITIONS

a = Name of CSOP's error file.

b = Process ID of SOP.

c = DEVICE or CLASS.

d = Name of an output device or class.

e = Spooler output class.

f = File.

g = Reason a device could not be added to CSOP's device table.

h = Number of messages.

i = SOP path.

j = System error number.

k = Job ID.

l = SOP completion code.

m = String containing additional information.

4. ALARMS

None. This automatically-generated report is for information only.

5. REFERENCES

OMDB Key
Format 30 has an OMDB key of 599.

Input Message
```
OP:ST;PORTS
```

ID . . . . . REPT-CSOP-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT,VAR

1. FORMAT

This message has 56 formats.

[1] `REPT CSOP BAD DEVICE DEFINITIONS IN ECD`
a b

[2] `REPT CSOP CANNOT ACCESS PMS DATABASE`

[3] `REPT CSOP CANNOT CHANGE PERMISSIONS TO R/W ON`
`NAMED OMDB SEGMENT`

[4] `REPT CSOP CANNOT CREATE COMMON ENUM SEGMENT`

[5] `REPT CSOP CANNOT CREATE DLGSOF DEV` *a*
`-NO SF_TEMP SOP`

[6] `REPT CSOP CANNOT CREATE NAMED OMDB SEGMENT`

[7] `REPT CSOP CANNOT CREATE OMDB BUFFER SEGMENT`

[8] `REPT CSOP CANNOT CREATE SHARED SEGMENT---CSOP DYING`

[9] `REPT CSOP CANNOT FREE OMDB SEGMENT`

[10] `REPT CSOP CANNOT GET MEMORY TO SAVE STACK`

[11] `REPT CSOP CANNOT GET PID OF RTS`

[12] `REPT CSOP CANNOT GROW NAMED OMDB SEGMENT`

[13] `REPT CSOP CANNOT INITIALIZE COMMON ENUM SEGMENT`

[14] `REPT CSOP CANNOT INITIALIZE NAMED OMDB SEGMENT`

[15] `REPT CSOP CANNOT INITIALIZE PMS DATABASE`

[16] `REPT CSOP CANNOT OPEN` *e*

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[17] REPT CSOP CANNOT READ DATABASE HEADER FROM *e*

[18] REPT CSOP CANNOT SEND MSG TO *c a* ERRNO *f*

[19] REPT CSOP CANNOT UPDATE PMS DATABASE

[20] REPT CSOP CREATED PID *c*
d

[21] REPT CSOP DELETED DEVICE

[22] REPT CSOP EXEC FAILED FOR /cft/spl/sop *a*

[23] REPT CSOP FAILED TO OPEN /dev/rop0 ERRNO *f*

[24] REPT CSOP FAILED TO REMOVE FILE *e*

[25] REPT CSOP FORK ERROR

[26] REPT CSOP JOB LIST ERROR *f* NOT IN LIST FOR *a*

[27] REPT CSOP MESSAGE ENABLE FAILED---CSOP DYING

[28] REPT CSOP MASTER WORK QUEUE OVERLOAD ERROR

[29] REPT CSOP MASTER WORK QUEUE OVERLOAD CLEARED

[30] REPT CSOP MASTER WORK QUEUE ALLOCATION
FAILED---CSOP DYING

[31] REPT CSOP NEW DEVICE DEFINED

[32] REPT CSOP NO DEVICES IN CLASS *a*

[33] REPT CSOP NO QUEUE ENTRY OUTPUT ERROR *g f h a*

[34] REPT CSOP OLD SOF KILLED FOR *a*

[35] REPT CSOP PORT CONNECT FAILURE

[36] REPT CSOP SEND NEW CONFIG TO *a*

[37] REPT CSOP SOF EXIT FOR *a*

[38] REPT CSOP SOF INIT *c a i j*

[39] REPT CSOP SOPMSG ERROR *a* NOT FOUND

[40] REPT CSOP SOP OUTPUT ERROR
COMPLETION CODE: *g* ERRNO: *f* JOBID: *h* DEVICE: *a*
PREHDR LOC *l* ADDR *l*
TBLHDR LOC *l* ADDR *l*
POSTHDR LOC *l* ADDR *l*

[41] REPT CSOP TOO MANY OUTSTANDING MESSAGES TO FIT
INTO NEW QUEUE

[42] REPT CSOP UNABLE TO ACCESS CLASS RECORDS IN ECD

[43] REPT CSOP UNABLE TO ACCESS DEVICE RECORDS IN ECD

[44] REPT CSOP UNABLE TO ALLOCATE TTY ENTRY FOR *k*

[45] REPT CSOP UNABLE TO ALLOCATE TTY ENTRY
FOR *a*---CSOP DYING

[46] REPT CSOP UNABLE TO ALLOCATE TTY LIST FOR CLASS *l*

[47] REPT CSOP UNABLE TO ATTACH TO ECD

[48] REPT CSOP UNABLE TO DEFINE NEW DEVICE *a*

[49] REPT CSOP UNABLE TO REMOVE UNKNOWN DEVICE *a*

[50] REPT CSOP UNABLE TO RETRIEVE EAI OPTIONS FROM ECD

[51] REPT CSOP UNABLE TO RETRIEVE SPOOLER INFORMATION FROM ECD

[52] REPT CSOP UNKNOWN TTY--SOP EXIT CODE *f* PID *c*

[53] REPT CSOP UNABLE TO ALLOCATE WORK Q FOR *a*

[54] REPT CSOP UNABLE TO CREATE NAMED WORK Q SEGMENT

[55] REPT CSOP STORE ERROR INMSG MGRERR=*m*

[56] REPT CSOP STORE ERROR UFILE MGRERR=*m*

2. REASON FOR OUTPUT

To report errors detected by the spooler during initialization.

When formats having no key value are printed, other output messages may then appear in primitive mode.

Format 1 prints if the ECD contains inconsistent device definitions.

Formats 2, 15, and 19 print if the coordinator of spooler output processor (CSOP) cannot access the plant measurements database.

Format 5 prints if there is an inconsistency in the ECD device definition. Either the terminal should be a dialogue device and is not, or the SOP should be temporary and is not.

Format 11 prints if CSOP is unable to create a dialogue shell.

Format 18 prints if CSOP cannot send a message to SOP *c*.

Format 20 prints when CSOP creates a new spooler output process.

Format 21 prints when a device record is deleted in the ECD.

Formats 22 and 25 are printed when CSOP is unable to create a new spooler output process.

Format 23 prints if CSOP is unable to print to the ROP.

Format 24 prints if CSOP is unable to remove a file.

Formats 26, 39, 40, and 52 indicate a SOP work-queue error. For Format 40, the locations and addresses of the message headers print.

Formats 28, 55, and 56 print when CSOP is unable to queue incoming messages; therefore, messages will be lost.

Format 31 prints when a new device record is defined in the ECD.

Format 32 prints if a class is defined that contains no output devices.

Format 33 prints when there was no entry in the work queue for *a*.

Formats 34 and 37 print when a dialogue shell is terminated.

Format 35 prints if port 1 is not free. CSOP will attempt to kill the process that is attached to port 1 and connect itself.

Format 37 prints when the ECD record for a device or class is changed.

Format 38 prints when a dialogue shell is created.

Format 42, 43, and 49 indicate ECD record problems.

Format 45 prints if CSOP cannot get enough memory to store the definition of an output device.

Format 46 prints when CSOP does not have enough memory to store the definition of a class.

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Format 47 prints if CSOP was unable to attach to the ECD. If this appears before CSOP initializes the master work queue, the message will go to the spooler log until CSOP is restarted.

Formats 47, 50, and 51 indicate ECD access and/or update errors.

3. VARIABLE FIELD DEFINITIONS

a = Name of an output device or class.

b = Reason a device could not be added to CSOP's device table.

c = Process ID of SOP.

d = String containing additional information.

e = File.

f = System error number.

g = Completion code.

h = Job ID.

i = Path name.

j = Segment name.

k = Name of CSOP's error file.

l = Spooler output class.

m = Error number assigned by CSOP.

4. ACTION TO BE TAKEN

For messages appearing on the ROP, in the event of a fatal fault, CSOP will be restarted, thus clearing the problem. No action should be taken unless the message is repeated. In that case, seek technical assistance to restore system sanity.

Messages written to the spooler log are informational only and no action is necessary.

5. ALARMS

None. This automatically-generated report is for information only.

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6. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 599.
Formats 2, 11, 15, 19, 21, 22, 24, 25, 31, 32, 34, 36, 37, 42, 43, and 47 through 51 have an OMDB key of 201.
Formats 3 through 10, 12, 13, 14, 16, 17, 27 through 30, 35, 45, 46, 47, and 53 through 56 do not have OMDB keys. These are output messages that cannot be formatted and spooled due to the state of the system at the time of printing.
Format 18 has an OMDB key of 203.
Format 20 has an OMDB key of 176.
Formats 23, 26, 39, and 52 have an OMDB key of 202.
Format 33 has an OMDB key of 204.
Format 38 has an OMDB key of 205.
Format 40 has an OMDB key of 206.

Input Message

```
OP:ST;PORTS
```

ID . . . . . REPT-CSOP-C
GENERIC . . . . . UNIX RTR R21.3 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, VAR

1. FORMAT

This message has 64 formats.

[1] `REPT CSOP BAD DEVICE DEFINITIONS IN ECD`
a b

[2] `REPT CSOP CANNOT ACCESS ACKDB`

[3] `REPT CSOP CANNOT ACCESS PMS DATABASE`

[4] `REPT CSOP CANNOT CHANGE PERMISSIONS TO R/W ON`
`NAMED OMDB SEGMENT`

[5] `REPT CSOP CANNOT CREATE COMMON ENUM SEGMENT`

[6] `REPT CSOP CANNOT CREATE DLGSOF DEV` *a*
`-NO SF_TEMP SOP`

[7] `REPT CSOP CANNOT CREATE NAMED OMDB SEGMENT`

[8] `REPT CSOP CANNOT CREATE OMDB BUFFER SEGMENT`

[9] `REPT CSOP CANNOT CREATE SHARED SEGMENT---CSOP DYING`

[10] `REPT CSOP CANNOT FREE OMDB SEGMENT`

[11] `REPT CSOP CANNOT GET MEMORY TO SAVE STACK`

[12] `REPT CSOP CANNOT GET PID OF RTS`

[13] `REPT CSOP CANNOT GROW NAMED OMDB SEGMENT`

[14] `REPT CSOP CANNOT INITIALIZE COMMON ENUM SEGMENT`

[15] `REPT CSOP CANNOT INITIALIZE NAMED OMDB SEGMENT`

[16] `REPT CSOP CANNOT INITIALIZE PMS DATABASE`

[17] `REPT CSOP CANNOT OPEN` *e*

[18] `REPT CSOP CANNOT READ DATABASE HEADER FROM` *e*

[19] `REPT CSOP CANNOT REMOVE FILE` *e*

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[20] REPT CSOP CANNOT SEND MSG TO *c a* ERRNO *f*

[21] REPT CSOP CANNOT UPDATE PMS DATABASE

[22] REPT CSOP CANNOT WRITE *e*

[23] REPT CSOP CREATED PID *c*
d

[24] REPT CSOP DELETED DEVICE

[25] REPT CSOP EXEC FAILED FOR /cft/spl/sop *a*

[26] REPT CSOP FAILED TO OPEN /dev/rop0 ERRNO *f*

[27] REPT CSOP FAILED TO OPEN *e*

[28] REPT CSOP FAILED TO REMOVE FILE *e*

[29] REPT CSOP FORK ERROR

[30] REPT CSOP JOB LIST ERROR *f* NOT IN LIST FOR *a*

[31] REPT CSOP MASTER WORK QUEUE ALLOCATION
FAILED---CSOP DYING

[32] REPT CSOP MASTER WORK QUEUE OVERLOAD ERROR

[33] REPT CSOP MASTER WORK QUEUE OVERLOAD CLEARED

[34] REPT CSOP MESSAGE ENABLE FAILED---CSOP DYING

[35] REPT CSOP NEW DEVICE DEFINED

[36] REPT CSOP NO DEVICES IN CLASS *a*

[37] REPT CSOP NO QUEUE ENTRY OUTPUT ERROR *g f h a*

[38] REPT CSOP OLD SOF KILLED FOR *a*

[39] REPT CSOP PORT CONNECT FAILURE

[40] REPT CSOP SEND NEW CONFIG TO *a*

[41] REPT CSOP SOF EXIT FOR *a*

[42] REPT CSOP SOF INIT *c a i j*

[43] REPT CSOP SOP OUTPUT ERROR
COMPLETION CODE: *g* ERRNO: *f* JOBID: *h* DEVICE: *a*

PREHDR LOC *n* ADDR *o*
TBLHDR LOC *n* ADDR *o*
POSTHDR LOC *n* ADDR *o*

[44] REPT CSOP SOPMSG ERROR *a* NOT FOUND

[45] REPT CSOP STORE ERROR INMSG MGRERR=*l*

[46] REPT CSOP STORE ERROR UFILE MGRERR=*l*

[47] REPT CSOP TOO MANY OUTSTANDING MESSAGES TO FIT
INTO NEW QUEUE

[48] REPT CSOP UNABLE TO ACCESS CLASS RECORDS IN ECD

[49] REPT CSOP UNABLE TO ACCESS DEVICE RECORDS IN ECD

[50] REPT CSOP UNABLE TO ALLOCATE TTY ENTRY
FOR *a* ---CSOP DYING

[51] REPT CSOP UNABLE TO ALLOCATE TTY LIST FOR CLASS *k*

[52] REPT CSOP UNABLE TO ALLOCATE WORK Q FOR *a*

[53] REPT CSOP UNABLE TO ATTACH TO ECD

[54] REPT CSOP UNABLE TO CREATE NAMED WORK Q SEGMENT

[55] REPT CSOP UNABLE TO DEFINE NEW DEVICE *a*

[56] REPT CSOP UNABLE TO REMOVE UNKNOWN DEVICE *a*

[57] REPT CSOP UNABLE TO RETRIEVE EAI OPTIONS FROM ECD

[58] REPT CSOP UNABLE TO RETRIEVE SPOOLER INFORMATION FROM ECD

[59] REPT CSOP UNKNOWN TTY--SOP EXIT CODE *f* PID *c*

[60] REPT CSOP WILL NOT OVERWRITE FILE *e*

[61] REPT CSOP DIOP STATE CHANGE TO FLT_SIMPLEX - MAX_DB_SEGS_INCORE = *m*

[62] REPT CSOP DIOP STATE CHANGE TO FLT_DUPLEX - MAX_DB_SEGS_INCORE = *m*

[63] REPT CSOP STORE ERROR NO COMMON SEGMENT SPACE MGRERR=*l*

[64] REPT CSOP CANNOT RETRIEVE FILENAME TO UNLINK, MGRERR=*l*

SEE PROPRIETARY NOTICE ON COVER PAGE

2. REASON FOR OUTPUT

To report errors detected by the spooler during initialization.

When formats having no key value are printed, other output messages may then appear in primitive mode.

Format 1 is printed if the equipment configuration database (ECD) contains inconsistent device definitions.

Formats 2 and 9 are printed if the ACKDB failed to initialize from disk, or could not be added to the invoking process' address space.

Formats 3, 16, and 21 are printed if coordinator of spooler output processes (CSOP) cannot access the plant measurements database.

Formats 4, 5, 7 through 10, 13, 14, 15, 17, and 18 are printed if errors occur while trying to read an OMDB into memory.

Format 6 is printed if there is an inconsistency in the ECD device definition. Either the terminal should be a dialogue device and is not, or the SOP should be temporary and is not.

Format 11 is printed if CSOP fails to save the stack in preparation for handling a phase 1.

Format 12 is printed if CSOP is unable to create a dialogue shell.

Format 19 is printed if CSOP cannot remove the output file associated with Format 21.

Format 20 is printed if CSOP cannot send a message to SOP *c*.

Formats 22 and 27 are printed if CSOP cannot open or write the output file.

Format 23 is printed when CSOP creates a new spooler output process.

Format 24 is printed when a device record is deleted in the ECD.

Formats 25 and 29 are printed when CSOP is unable to create a new spooler output process.

Format 26 is printed if CSOP is unable to print to the ROP.

Format 28 is printed if CSOP is unable to remove a file.

Format 29 is printed if CSOP is unable to fork a SOP process.

Formats 30, 43, 44, and 59 indicate a SOP work queue error. In the case of 43, the locations and addresses of the message headers are printed.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 31 is printed if memory cannot be allocated for CSOP's master work queue. This is a fatal error since no messages can be stored internally for later output.

Formats 32, 45 and 46 are printed when CSOP is unable to queue incoming messages; therefore, messages will be lost.

Format 33 is printed when the overload condition has been cleared.

Format 34 is printed if CSOP is unable to enable the reception of messages.

Format 35 is printed when a new device record is defined in the ECD.

Format 36 is printed if a class is defined that contains no output devices.

Format 37 is printed when there was no entry in the work queue for a.

Formats 38 and 41 are printed when a dialogue shell is terminated.

Format 39 is printed if port 1 is not free. CSOP will attempt to kill the process that is attached to port 1 and connect itself.

Format 40 is printed when the ECD record for a device or class is changed.

Format 42 is printed when a dialogue shell is created.

Format 47 is printed if the queue size for a device changed and it is not large enough to hold all the current outstanding messages.

Format 48, 49, and 57 indicate ECD record problems.

Format 50 is printed if CSOP cannot get enough memory to store the definition of an output device.

Format 51 is printed when CSOP does not have enough memory to store the definition of a class.

Format 52 is printed if CSOP is unable to allocate memory for the work queue associated with a particular SOP.

Format 53 is printed if CSOP was unable to attach to the ECD. If this appears before CSOP initializes the master work queue, the message will go to the spooler log until CSOP is restarted.

Formats 53, 57, and 58 indicate ECD access and / or update errors.

Format 54 is printed when the common segment to exchange work queue information between CSOP and SIP cannot be created.

Format 55 is printed when CSOP is unable to allocate space to store information about a new tty entry.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 56 is printed when a tty entry is requested to be removed from CSOP's internal tty list, and CSOP cannot find an entry for the specified device or class.

Format 59 is printed by CSOP when it is cleaning up after a dead SOP if it cannot find a tty entry associated with the SOP.

Format 60 is printed when CSOP finds that the output file is not empty. This is done to ensure that existing files are not destroyed or inappropriately changed.

Formats 61 and 62 indicate that a state change has occurred in the system; output is redirected to the spooler log. Format 61 indicates that the system is in the SIMPLEX mode, and Format 62 indicates that the system is in DUPLEX mode.

Format 63 indicates that CSOP has run out of common segment space. This space is used to store output messages that are being formatted or formatted messages that have not yet been output.

Format 64 indicates that CSOP cannot retrieve the name of a file from its common segment. CSOP needs the filename so that the file can be removed (unlinked).

3. VARIABLE FIELD DEFINITIONS

a = Name of an output device or class.

b = Reason a device could not be added to CSOP's device table.

c = Process identification (ID) of SOP.

d = String containing additional information.

e = File name.

f = System error number.

g = Completion code.

h = Job ID.

i = Path name.

j = Segment name.

k = Spooler output class.

l = Error number assigned by CSOP.

m = Maximum number of active OMDB segments.

n = String identifying where data is stored. "NO TEXT" indicates there is no data stored.

o = Address in CSOP's common segment.

4. ACTION TO BE TAKEN

For messages appearing on the receive-only printer (ROP), in the event of a fatal fault, CSOP will be restarted, thus clearing the problem. No action should be taken unless the message is repeated. If the message is repeated, seek technical assistance to restore system sanity.

Messages written to the spooler log are informational only and no action should be taken.

If Format 19 is printed, the file should be removed manually.

If Format 60 is printed, determine the input command that specified this output file and retry that command with a different filename option.

If Format 64 is printed, if /tmp space is limited, check for files of the form "/tmp/OM*" and remove any of these that do not have a time stamp within the last 6 hours.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 599.
Formats 2, 4 through 11, 13, 14, 15, 17, 18, 31 through 34,
39, 45, 46, 50 through 54 and 63 do not have OMDB keys.
These are output messages that cannot be formatted and
spooled due to the state of the system at the time of printing.
Formats 3, 12, 16, 21, 23, 24, 25, 28, 29, 35, 36, 38, 40,
41, 47, 49, and 55 through 58, 61, 62 and 64 have an OMDB key of 201.
Formats 19, 22, 26, 27, 30, 44, 59, and 60 have an OMDB key of 202.
Format 20 has an OMDB key of 203.
Format 37 has an OMDB key of 204.
Format 42 has an OMDB key of 205.
Format 43 has an OMDB key of 206.

Input Messages

```
OP:LOG
OP:ST;PORTS
```

ID . . . . . REPT-CSOP-D
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, VAR

1. FORMAT

This message has 64 formats.

[1] `REPT CSOP BAD DEVICE DEFINITIONS IN ECD`
a b

[2] `REPT CSOP CANNOT ACCESS ACKDB`

[3] `REPT CSOP CANNOT ACCESS PMS DATABASE`

[4] `REPT CSOP CANNOT CHANGE PERMISSIONS TO R/W ON NAMED OMDB SEGMENT`

[5] `REPT CSOP CANNOT CREATE COMMON ENUM SEGMENT`

[6] `REPT CSOP CANNOT CREATE DLGSOF DEV` *a*
`-NO SF_TEMP SOP`

[7] `REPT CSOP CANNOT CREATE NAMED OMDB SEGMENT`

[8] `REPT CSOP CANNOT CREATE OMDB BUFFER SEGMENT`

[9] `REPT CSOP CANNOT CREATE SHARED SEGMENT---CSOP DYING`

[10] `REPT CSOP CANNOT FREE OMDB SEGMENT`

[11] `REPT CSOP CANNOT GET MEMORY TO SAVE STACK`

[12] `REPT CSOP CANNOT GET PID OF RTS`

[13] `REPT CSOP CANNOT GROW NAMED OMDB SEGMENT`

[14] `REPT CSOP CANNOT INITIALIZE COMMON ENUM SEGMENT`

[15] `REPT CSOP CANNOT INITIALIZE NAMED OMDB SEGMENT`

[16] `REPT CSOP CANNOT INITIALIZE PMS DATABASE`

[17] `REPT CSOP CANNOT OPEN` *e*

[18] `REPT CSOP CANNOT READ DATABASE HEADER FROM` *e*

SEE PROPRIETARY NOTICE ON COVER PAGE

[19] REPT CSOP CANNOT REMOVE FILE *e*

[20] REPT CSOP CANNOT SEND MSG TO *c a* ERRNO *f*

[21] REPT CSOP CANNOT UPDATE PMS DATABASE

[22] REPT CSOP CANNOT WRITE *e*

[23] REPT CSOP CREATED PID *c*
d

[24] REPT CSOP DELETED DEVICE

[25] REPT CSOP EXEC FAILED FOR /cft/spl/sop *a*

[26] REPT CSOP FAILED TO OPEN /dev/rop0 ERRNO *f*

[27] REPT CSOP FAILED TO OPEN *e*

[28] REPT CSOP FAILED TO REMOVE FILE *e*

[29] REPT CSOP FORK ERROR

[30] REPT CSOP JOB LIST ERROR *f* NOT IN LIST FOR *a*

[31] REPT CSOP MASTER WORK QUEUE ALLOCATION
FAILED---CSOP DYING

[32] REPT CSOP MASTER WORK QUEUE OVERLOAD ERROR

[33] REPT CSOP MASTER WORK QUEUE OVERLOAD CLEARED

[34] REPT CSOP MESSAGE ENABLE FAILED---CSOP DYING

[35] REPT CSOP NEW DEVICE DEFINED

[36] REPT CSOP NO DEVICES IN CLASS *a*

[37] REPT CSOP NO QUEUE ENTRY OUTPUT ERROR *g f h a*

[38] REPT CSOP OLD SOF KILLED FOR *a*

[39] REPT CSOP PORT CONNECT FAILURE

[40] REPT CSOP SEND NEW CONFIG TO *a*

[41] REPT CSOP SOF EXIT FOR *a*

[42] REPT CSOP SOF INIT *c a i j*

SEE PROPRIETARY NOTICE ON COVER PAGE

[43] REPT CSOP SOP OUTPUT ERROR
COMPLETION CODE: *g* ERRNO: *f* JOBID: *h* DEVICE: *a*
PREHDR LOC *n* ADDR *o*
TBLHDR LOC *n* ADDR *o*
POSTHDR LOC *n* ADDR *o*

[44] REPT CSOP SOPMSG ERROR *a* NOT FOUND

[45] REPT CSOP STORE ERROR INMSG MGRERR=*l*

[46] REPT CSOP STORE ERROR UFILE MGRERR=*l*

[47] REPT CSOP TOO MANY OUTSTANDING MESSAGES TO FIT
INTO NEW QUEUE

[48] REPT CSOP UNABLE TO ACCESS CLASS RECORDS IN ECD

[49] REPT CSOP UNABLE TO ACCESS DEVICE RECORDS IN ECD

[50] REPT CSOP UNABLE TO ALLOCATE TTY ENTRY
FOR *a* ---CSOP DYING

[51] REPT CSOP UNABLE TO ALLOCATE TTY LIST FOR CLASS *k*

[52] REPT CSOP UNABLE TO ALLOCATE WORK Q FOR *a*

[53] REPT CSOP UNABLE TO ATTACH TO ECD

[54] REPT CSOP UNABLE TO CREATE NAMED WORK Q SEGMENT

[55] REPT CSOP UNABLE TO DEFINE NEW DEVICE *a*

[56] REPT CSOP UNABLE TO REMOVE UNKNOWN DEVICE *a*

[57] REPT CSOP UNABLE TO RETRIEVE EAI OPTIONS FROM ECD

[58] REPT CSOP UNABLE TO RETRIEVE SPOOLER INFORMATION FROM ECD

[59] REPT CSOP UNKNOWN TTY--SOP EXIT CODE *f* PID *c*

[60] REPT CSOP WILL NOT OVERWRITE FILE *e*

[61] REPT CSOP DIOP STATE CHANGE TO FLT_SIMPLEX - MAX_DB_SEGS_INCORE = *m*

[62] REPT CSOP DIOP STATE CHANGE TO FLT_DUPLEX - MAX_DB_SEGS_INCORE = *m*

[63] REPT CSOP STORE ERROR NO COMMON SEGMENT SPACE MGRERR=*l*

[64] REPT CSOP CANNOT RETRIEVE FILENAME FROM *n* LOCATION
MGRERR: *l* JOBID: *h* UTILID: *p* [OMDB KEY: *q*]

SEE PROPRIETARY NOTICE ON COVER PAGE

```
LOCATION          ADDRESS
PREHDR LOC n    ADDR o
TBLHDR LOC n    ADDR o
POSTHDR LOC n   ADDR o
```

2. REASON FOR OUTPUT

To report errors detected by the spooler during initialization.

When formats having no key value are printed, other output messages may then appear in primitive mode.

Format 1 is printed if the equipment configuration database (ECD) contains inconsistent device definitions.

Formats 2 and 9 are printed if the ACKDB failed to initialize from disk, or could not be added to the invoking process' address space.

Formats 3, 16, and 21 are printed if coordinator of spooler output processes (CSOP) cannot access the plant measurements database.

Formats 4, 5, 7 through 10, 13, 14, 15, 17, and 18 are printed if errors occur while trying to read an OMDB into memory.

Format 6 is printed if there is an inconsistency in the ECD device definition. Either the terminal should be a dialogue device and is not, or the SOP should be temporary and is not.

Format 11 is printed if CSOP fails to save the stack in preparation for handling a phase 1.

Format 12 is printed if CSOP is unable to create a dialogue shell.

Format 19 is printed if CSOP cannot remove the output file associated with Format 21.

Format 20 is printed if CSOP cannot send a message to SOP *c*.

Formats 22 and 27 are printed if CSOP cannot open or write the output file.

Format 23 is printed when CSOP creates a new spooler output process.

Format 24 is printed when a device record is deleted in the ECD.

Formats 25 and 29 are printed when CSOP is unable to create a new spooler output process.

Format 26 is printed if CSOP is unable to print to the ROP.

Format 28 is printed if CSOP is unable to remove a file.

Format 29 is printed if CSOP is unable to fork a SOP process.

SEE PROPRIETARY NOTICE ON COVER PAGE

Formats 30, 43, 44, and 59 indicate a SOP work queue error. In the case of 43, the locations and addresses of the message headers are printed.

Format 31 is printed if memory cannot be allocated for CSOP's master work queue. This is a fatal error since no messages can be stored internally for later output.

Formats 32, 45 and 46 are printed when CSOP is unable to queue incoming messages; therefore, messages will be lost.

Format 33 is printed when the overload condition has been cleared.

Format 34 is printed if CSOP is unable to enable the reception of messages.

Format 35 is printed when a new device record is defined in the ECD.

Format 36 is printed if a class is defined that contains no output devices.

Format 37 is printed when there was no entry in the work queue for a.

Formats 38 and 41 are printed when a dialogue shell is terminated.

Format 39 is printed if port 1 is not free. CSOP will attempt to kill the process that is attached to port 1 and connect itself.

Format 40 is printed when the ECD record for a device or class is changed.

Format 42 is printed when a dialogue shell is created.

Format 47 is printed if the queue size for a device changed and it is not large enough to hold all the current outstanding messages.

Format 48, 49, and 57 indicate ECD record problems.

Format 50 is printed if CSOP cannot get enough memory to store the definition of an output device.

Format 51 is printed when CSOP does not have enough memory to store the definition of a class.

Format 52 is printed if CSOP is unable to allocate memory for the work queue associated with a particular SOP.

Format 53 is printed if CSOP was unable to attach to the ECD. If this appears before CSOP initializes the master work queue, the message will go to the spooler log until CSOP is restarted.

Formats 53, 57, and 58 indicate ECD access and/or update errors.

Format 54 is printed when the common segment to exchange work queue information between CSOP and SIP cannot be created.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 55 is printed when CSOP is unable to allocate space to store information about a new tty entry.

Format 56 is printed when a tty entry is requested to be removed from CSOP's internal tty list, and CSOP cannot find an entry for the specified device or class.

Format 59 is printed by CSOP when it is cleaning up after a dead SOP if it cannot find a tty entry associated with the SOP.

Format 60 is printed when CSOP finds that the output file is not empty. This is done to ensure that existing files are not destroyed or inappropriately changed.

Formats 61 and 62 indicate that a state change has occurred in the system; output is redirected to the spooler log. Format 61 indicates that the system is in the SIMPLEX mode, and Format 62 indicates that the system is in DUPLEX mode.

Format 63 indicates that CSOP has run out of common segment space. This space is used to store output messages that are being formatted or formatted messages that have not yet been output.

Format 64 indicates that CSOP cannot retrieve the name of a file from its common segment. CSOP needs the filename so that the file can be removed.

3. VARIABLE FIELD DEFINITIONS

a = Name of an output device or class.

b = Reason a device could not be added to CSOP's device table.

c = Process identification (ID) of SOP.

d = String containing additional information.

e = File name.

f = System error number.

g = Completion code.

h = Job ID.

i = Path name.

j = Segment name.

k = Spooler output class.

l = Error number assigned by CSOP.

m = Maximum number of active OMDB segments.

n = String identifying where data is stored. "NO TEXT" indicates there is no data stored.

o = Address in CSOP's common segment.

p = Utility ID.

q = OMDB key of the report.

4. ACTION TO BE TAKEN

For messages appearing on the receive-only printer (ROP), in the event of a fatal fault, CSOP will be restarted, thus clearing the problem. No action should be taken unless the message is repeated. If the message is repeated, seek technical assistance to restore system sanity.

Messages written to the spooler log are informational only and no action should be taken.

If Format 19 is printed, the file should be removed manually.

If Format 60 is printed, determine the input command that specified this output file and retry that command with a different filename option.

If Format 64 is printed, if /tmp space is limited, check for files of the form "/tmp/OM*" and remove any of these that do not have a time stamp within the last 6 hours. Note: there is one report of format 64 for each file to be removed.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 599.
Formats 2, 4 through 11, 13, 14, 15, 17, 18, 31 through 34,
39, 45, 46, 50 through 54 and 63 do not have OMDB keys.
These are output messages that cannot be formatted and
spooled due to the state of the system at the time of printing.
Formats 3, 12, 16, 21, 23, 24, 25, 28, 29, 35, 36, 38, 40,
41, 47, 49, and 55 through 58, 61 and 62 have an OMDB key of 201.
Formats 19, 22, 26, 27, 30, 44, 59, and 60 have an OMDB key of 202.
Format 20 has an OMDB key of 203.
Format 37 has an OMDB key of 204.
Format 42 has an OMDB key of 205.
Format 43 has an OMDB key of 206.
Format 64 has an OMDB key of 745.

Input Messages

```
OP:LOG
OP:ST;PORTS
```

ID . . . . . REPT-CSOP,FORM-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1]
```
REPT CSOP FORMATTING
 BAD KEY PASSED BY CLIENT
 KEY:  a PID:  b UTILITY ID:   c
```

[2]
```
REPT CSOP FORMATTING
 CLIENT PARAMETER ACCESS PROBLEM
 KEY:  a PID:  b UTILITY ID:  c
```

[3]
```
REPT CSOP FORMATTING
 INCONSISTENT CLIENT DATA
 KEY:  a PID:  b UTILITY ID:  c
```

[4]
```
REPT CSOP FORMATTING
 UNKNOWN ENUMERATION VALUE
 KEY:  a PID:  b UTILITY ID:  c
```

[5]
```
REPT CSOP FORMATTING
 BAD HANDLING PRIORITY PASSED BY CLIENT
 KEY:  a PID:  b UTILITY ID:  c
```

[6]
```
REPT CSOP FORMATTING
 PROBLEM STORING MESSAGE TEXT
 KEY:  a PID:  b UTILITY ID:  c
```

[7]
```
REPT CSOP FORMATTING
 BAD TRANSLATION TYPE
 KEY:  a PID:  b UTILITY ID:  c
```

[8]
```
REPT CSOP FORMATTING
 FIELD SIZE ERROR
 KEY:  a PID:  b UTILITY ID:  c
```

2. REASON FOR OUTPUT

To report that an error has occurred during the formatting of a format-and-spool request.

3. VARIABLE FIELD DEFINITIONS

a = The key that was requested.

b = The process ID of the requesting process.

c = The utility ID of the requesting process.

All variables for `REPT-CSOP,FORMATTING` messages are taken from the information passed by the requesting (client) process.

4. ACTION TO BE TAKEN

Formats 1 through 5 indicate a problem in requesting process code. Seek technical assistance.

Format 6 indicates that `CSOP` is unable to store the formatted text. `CSOP` will attempt to store the text in a file in `/tmp` if `CSOP`'s common segment is full. This message indicates that the attempted use of a file failed.

Formats 7 and 8 indicate a software problem with the output message database (OMDB). Seek technical assistance.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
Formats 1 through 8 have an OMDB key of 11.

ID . . . . . REPT-CSOP,FORM-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has nine formats.

[1]
```
REPT CSOP FORMATTING
 BAD KEY PASSED BY CLIENT
 KEY:  a PID:  b UTILITY ID:   c
```

[2]
```
REPT CSOP FORMATTING
 CLIENT PARAMETER ACCESS PROBLEM
 KEY:  a PID:  b UTILITY ID:  c
```

[3]
```
REPT CSOP FORMATTING
 INCONSISTENT CLIENT DATA
 KEY:  a PID:  b UTILITY ID:  c
```

[4]
```
REPT CSOP FORMATTING
 UNKNOWN ENUMERATION VALUE
 KEY:  a PID:  b UTILITY ID:  c
```

[5]
```
REPT CSOP FORMATTING
 BAD HANDLING PRIORITY PASSED BY CLIENT
 KEY:  a PID:  b UTILITY ID:  c
```

[6]
```
REPT CSOP FORMATTING
 PROBLEM STORING MESSAGE TEXT
 KEY:  a PID:  b UTILITY ID:  c
```

[7]
```
REPT CSOP FORMATTING
 BAD TRANSLATION TYPE
 KEY:  a PID:  b UTILITY ID:  c
```

[8]
```
REPT CSOP FORMATTING
 INVALID LANGUAGE PASSED BY CLIENT
 KEY:  a PID:  b UTILITY ID:  c
```

[9]
```
REPT CSOP FORMATTING
 PROBLEM ALLOCATING MEMORY
 KEY:  a PID:  b UTILITY ID:  c
```

2. REASON FOR OUTPUT

To report that an error has occurred during the formatting of a format-and-spool request.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

a = The key that was requested.

b = The process ID of the requesting process.

c = The utility ID of the requesting process.

All variables for `REPT-CSOP,FORMATTING` messages are taken from the information passed by the requesting (client) process.

4. ACTION TO BE TAKEN

Formats 1 through 5 indicate a problem in requesting process code. Seek technical assistance.

Format 6 indicates that `CSOP` is unable to store the formatted text. `CSOP` will attempt to store the text in a file in `/tmp` if `CSOP`'s common segment is full. This message indicates that the attempted use of a file failed.

Format 7 indicates a software problem with the output message database (OMDB). Seek technical assistance.

Format 8 indicates a software error in the language passed to `CSOP`. Currently, there are two valid values, English and National, with English as the default. Seek technical assistance to resolve.

Format 9 indicates a failure in `CSOP` to allocate memory while processing the output message. This indicates that memory resources are temporarily unavailable resulting in the loss of the requested output message.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
Formats 1 through 9 have an OMDB key of 11.

ID . . . . . REPT-CSOP,IN
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT CSOP IN SERVICE
 OMDB SEGMENTS:
TOTAL      ACTIVE
 a     b
```

2. REASON FOR OUTPUT

To report initialization of the coordinator of spooler output processor (CSOP) process.

3. VARIABLE FIELD DEFINITIONS

a = Total number of segments that the output message database (OMDB) requires.

b = Number of segments that are active (incore).

NOTE: The number of segments is variable depending on the current state of the system and the equipment configuration database (ECD) setup. When the system is in DUPLEX mode, the number of active segments will be determined from the splrinfo record information in the ECD. When the system is in SIMPLEX mode, the number of active segments will be the total number of output buffer segments required by the OMDB.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 0.

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-CSOP,PRIM
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT CSOP PRIMITIVE MODE FOR KEY` *a*
`0`*xbbbb: xxxxxxxx* [*xxxxxxxx xxxxxxxx xxxxxxxx*]

2. REASON FOR OUTPUT

To report that the output message database (OMDB) cannot be accessed and therefore a message cannot be formatted. Variables passed by the requesting process are given in the form of a hexadecimal dump.

3. VARIABLE FIELD DEFINITIONS

a = The key that is requested.

bbbb = The offset of the first byte of the line.

xxxxxxxx = A hexadecimal dump of one memory word. (Due to limits of the primitive mode buffer, this may not be a complete dump of all variables.)

4. ACTION TO BE TAKEN

Primitive mode indicates a problem in accessing the incore OMDB. Examine the current status of the file `/cft/spl/omdb` and disk availability. If the file exists and the disk is `ACTIVE`, execute the `ACTV:OMDB` message. If this is not successful, the problem may be insufficient memory available to bring the OMDB incore; contact the next level of technical support.

NOTE: A cross reference file, `omdb.xref`, located on development support processors, is needed to translate the hexadecimal dump. Support personnel should refer to the *UNIX® RTR Programmer's Manual*, Volume 2, for instructions on translating hexadecimal OMDB dumps.

5. ALARMS

None.

6. REFERENCES

Output Appendix
`OMDB-REF`

Input Message
`ACTV:OMDB`

SEE PROPRIETARY NOTICE ON COVER PAGE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-CU-A
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11 and R21.15
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `REPT CU` *a b*

[2] `REPT CU` *a* `ERROR INTERRUPT` *c d*

[3] `REPT CU` *a* `MAINTENANCE INTERRUPT` *d*

2. REASON FOR OUTPUT

To indicate the status of the specified control unit (CU).

Format 1 is printed as the result of a change in the major state of the CU, while Formats 2 and 3 indicate that an error interrupt has occurred.

3. VARIABLE FIELD DEFINITIONS

a = Member number (0 or 1).

b = Major state:

- `ACTIVE` — Processor is on-line and not in a recovery state.
- `INITIALIZING` — Processor has undergone an initialization, and the initialization interval has not elapsed.
- `OUT OF SERVICE` — Processor is available for use, but its memory is not up-to-date.
- `STANDBY` — Processor is updated and available for use.
- `UNAVAILABLE` — Processor is unavailable under any circumstance (for example, forced off-line).

c = Interrupt type, in hexadecimal notation.

- `2` — Emergency action interface (EAI) error
- `8` — Noncorrectable parity failure in main store (my store C)
- `0B` — Invalid maintenance channel order
- `0C` — Other store controller error (other store A)
- `0D` — Other store refresh or correctable parity failure (other store D)
- `0E` — Other store noncorrectable memory failure (other store C)
- `0F` — Other store timeout

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10 — Channel error
11 — IO response error
12 — IO addressing error
13 — Parity divert error
14 — Refresh or correctable parity memory failure (my store D)
15 — Protection violation
16 — Virtual address out of range (VLMM only)
17 — Out-of-range memory reference
18 — Out-of-range memory reference (other store)
19 — Privilege violation
1A — Bad alignment on memory reference
1B — Illegal operand
1C — Illegal instruction
1D — Illegal stack switch
1E — No interrupt source set when microcode interrupt handler entered
20 — Direct memory access (DMA) detected fatal hardware fault in on-line main store
21 — DMA detected out-of-range memory reference
22 — DMA detected noncorrectable parity failure in main store
25 — DMA error: bad parity on direct I/O bus (DIO)
26 — DMA error: bad parity on read
27 — DMA error: DMA random access memory (RAM) parity failure
28 — DMA error: DMA incrementer parity failure
29 — DMA error: DIO ready failure
2A — DMA error: DIO all seems well failure
2B — DMA error: DIO acknowledge failure
2C — DMA error: central control input output (CCIO) data parity failure
2D — DMA error: CCIO message failure
2E — DMA error: DMA read only message (ROM) sequencer parity failure
2F — DMA error: Address error
30 — DMA error: Channel request error
32 — Processor error interrupt but no bits are set in error registers
33 — Bad operating system trap (OST) detected by the kernel

d = If supplemental data is gathered for this error, it will be placed in the appropriate log file. This identification flag can be used to find the entry in the log file.

For format 2, the error data will be in either the ERLOG or MEMLOG log file. The log file name is given in the action to be taken for each interrupt type.

For format 3, the entry is always in the PMLOG file.

Items can be extracted from a log file using the OP:LOG input message, where ERLOG or MEMLOG is the log file being searched and the keyword (KW) argument is *d* the sequence number given above.

4. ACTION TO BE TAKEN

If a Format 2 message is output, follow the appropriate instructions for the specified interrupt type as given in the following table.

Table A
Interrupt Action Table

Interrupt Type	Action
2	This interrupt occurs only on 3B21D machines. It indicates that an error has occurred on the on-line CC EAI circuitry. Analyze the accompanying REPT-ERSLOT output message and take appropriate action as stated in the REPT-ERSLOT output manual pages.
8	This error typically implicates a memory array board. Refer to the Error Analysis section of the *System Maintenance Manual*, to determine the faulty memory array board. Run all of the phases of the main store controller (MASC) diagnostics, including the demand phases. If a failure occurs, replace the faulty pack. If there is no failure, but there are repeated errors, try rotating the pack to another slot to see if the error follows the pack.
0B	If this is an isolated failure, no action is required. If repeated failures occur, the maintenance channel may have a fault. Check the cabling and run diagnostics. The error entry is in ERLOG.
0C	This error may implicate the store controller or a store array. Calculate the faulty store array and run diagnostics as for interrupt type 8. If there is no fault, restore the unit to service.
0D	This error typically implicates a memory array board. Refer to the Error Analysis section of the *System Maintenance Manual*, to determine the faulty memory array board. Run all of the phases of the main store controller (MASC) diagnostics, including the demand phases. If a failure occurs, replace the faulty pack. If there is no failure, but there are repeated errors, try rotating the pack to another slot to see if the error follows the pack.

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Table A
Interrupt Action Table (*continued*)

Interrupt Type	Action
0E	This error typically implicates a memory array board. Refer to the Error Analysis section of the *System Maintenance Manual*, to determine the faulty memory array board. Run all of the phases of the main store controller (MASC) diagnostics, including the demand phases. If a failure occurs, replace the faulty pack. If there is no failure, but there are repeated errors, try rotating the pack to another slot to see if the error follows the pack.
0F	Check the update cables and run diagnostics on the off-line main store and update circuits. The error data is in ERLOG.
10	Get the channel number and channel address from the corresponding entry in ERLOG. If the address corresponds to a 3x6 code, but the channel is unequipped, the data base may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the data base. If the error occurs on one processor and not the other, run diagnostics on the processor that encounters the fault.
11	Get the hardware status register from the corresponding entry in ERLOG. The channel address can be determined as follows: channel address = (hardware status register & If the address corresponds to a 3x6 code, but the channel is unequipped, the database may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the data base. If the error occurs on one processor and not the other, run diagnostics on the processor that encounters the fault.

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Table A
Interrupt Action Table (*continued*)

Interrupt Type	Action
12	Get the hardware status register from the corresponding entry in ERLOG. The channel address can be determined as follows: channel address = (hardware status register & If the address corresponds to a 3x6 code, but the channel is unequipped, the data base may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the data base. If the error occurs on one processor and not the other, run diagnostics on the processor that encounters the fault.
13	Get the hardware status register from the corresponding entry in ERLOG. The channel address can be determined as follows: channel address = (hardware status register & If the address corresponds to a 3x6 code, but the channel is unequipped, the data base may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the data base. If the error occurs on one processor and not the other, run diagnostics on the processor that encounters the fault.
14	This error typically implicates a memory array board. Refer to the Error Analysis section of the *System Maintenance Manual*, to determine the faulty memory array board. Run all of the phases of the main store controller (MASC) diagnostics, including the demand phases. If a failure occurs, replace the faulty pack. If there is no failure, but there are repeated errors, try rotating the pack to another slot to see if the error follows the pack.
15	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, program address (PA) and program status word (PSW), should be reported according to local procedures, including the error log data.

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Table A
Interrupt Action Table (*continued*)

Interrupt Type	Action
16	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
17	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
18	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
19	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
1A	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
1C	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
1D	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
1E	If repeated failures occur, run diagnostics on the processor encountering the fault. The error data is recorded in ERLOG.

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Table A
Interrupt Action Table (*continued*)

Interrupt Type	Action
20	This error can occur only if hardware checks are blocked. The corresponding ERLOG entry contains the direct memory access (DMA) store data register. This can be used to determine the bad memory location. Diagnose the main store if there are multiple errors of this type.
21	This is a software error that was detected by the DMA and is a fatal DMA error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
22	This error typically implicates a memory array board detected by the DMA and is a fatal DMA error. The error data is recorded in ERLOG. This error typically implicates a memory array board. Refer to the Error Analysis section of the *System Maintenance Manual*, to determine the faulty memory array board. Run all of the phases of the main store controller (MASC) diagnostics, including the demand phases. If a failure occurs, replace the faulty pack. If there is no failure, but there are repeated errors, try rotating the pack to another slot to see if the error follows the pack.
25	This error is in a channel under the DMA, but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
26	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
27	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
28	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.

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Table A
Interrupt Action Table (*continued*)

Interrupt Type	Action
29	This error is in a channel under the DMA, but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
2A	This error is in a channel under the DMA, but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
2B	This error is in a channel under the DMA, but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
2C	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
2D	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
2E	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
2F	This error is in a channel under the DMA, but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
30	This error is in a channel under the DMA, but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.

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Table A
Interrupt Action Table (*continued*)

Interrupt Type	Action
32	If this problem persists, diagnose the faulty CU. This can be an improperly wired interrupt source register. The error data is recorded in ERLOG.
33	The kernel has detected a bad operating system trap. Identification of the offending process is possible by examining the ERLOG log file or the corresponding error data printed on the receive-only printer (ROP).

For format 3 errors, refer to the *System Maintenance Manual* for analysis of maintenance interrupt data. The analysis is done similarly to the post mortem analysis with the following additions:

1. The source will always be software or hardware.
2. For software sources, the utility ID and panic code determine the cause.
3. For hardware sources, examine the MICROCODE SAVE STATE for
   a. Stop and switch errors in the error register.
   b. A one (1) in bits 6 or 7 of the timer register (TMR), indicating the sanity timer fired.
   c. A micro-interrupt error with either the interrupts blocked (system status register [SSR]) or the execution at level 15 (PSW).

Any hardware error implicates the sanity of the faulty CU while, in general, software errors are caused by program malfunctions. However, any recurring error on one CU implicates that CU. Run diagnostics, including demand phases, if necessary.

5. ALARMS

For a minor alarm, take action as indicated in the report.

6. REFERENCES

OMDB Key
Format 3 has an OMDB key of 425.

Input Messages
DEL:LOG
DGN:CU
OP:LOG
OP:MEMERRS

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Output Messages
DGN-CU
DGN-CU,MASC

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ID . . . . . REPT-CU-B
GENERIC . . . . . UNIX RTR R21.17 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `REPT CU` *a b*

[2] `REPT CU` *a* `ERROR INTERRUPT` *c d*

[3] `REPT CU` *a* `MAINTENANCE INTERRUPT` *d*

2. REASON FOR OUTPUT

To indicate the status of the specified control unit (CU).

Format 1 is printed as the result of a change in the major state of the CU, while Formats 2 and 3 indicate that an error interrupt has occurred.

3. VARIABLE FIELD DEFINITIONS

a = Member number (0 or 1).

b = Major state:

`ACTIVE` — Processor is on-line and not in a recovery state.

`INITIALIZING` — Processor has undergone an initialization, and the initialization interval has not elapsed.

`OUT OF SERVICE` — Processor is available for use, but its memory is not up-to-date.

`REMOVED` — Processor state has been changed to OUT OF SERVICE or UNAVAILABLE.

`STANDBY` — Processor is updated and available for use.

`UNAVAILABLE` — Processor is unavailable under any circumstance (for example, forced off-line).

c = Interrupt type, in hexadecimal notation.

`2` — Emergency action interface (EAI) error
`8` — Noncorrectable parity failure in main store (my store C)
`0B` — Invalid maintenance channel order
`0C` — Other store controller error (other store A)
`0D` — Other store refresh or correctable parity failure (other store D)

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0E — Other store noncorrectable memory failure (other store C)
0F — Other store timeout
10 — Channel error
11 — IO response error
12 — IO addressing error
13 — Parity divert error
14 — Refresh or correctable parity memory failure (my store D)
15 — Protection violation
16 — Virtual address out of range (VLMM only)
17 — Out-of-range memory reference
18 — Out-of-range memory reference (other store)
19 — Privilege violation
1A — Bad alignment on memory reference
1B — Illegal operand
1C — Illegal instruction
1D — Illegal stack switch
1E — No interrupt source set when microcode interrupt handler entered
20 — Direct memory access (DMA) detected fatal hardware fault in on-line main store
21 — DMA detected out-of-range memory reference
22 — DMA detected noncorrectable parity failure in main store
25 — DMA error: bad parity on direct I/O bus (DIO)
26 — DMA error: bad parity on read
27 — DMA error: DMA random access memory (RAM) parity failure
28 — DMA error: DMA incrementer parity failure
29 — DMA error: DIO ready failure
2A — DMA error: DIO all seems well failure
2B — DMA error: DIO acknowledge failure
2C — DMA error: central control input output (CCIO) data parity failure
2D — DMA error: CCIO message failure
2E — DMA error: DMA read only message (ROM) sequencer parity failure
2F — DMA error: Address error
30 — DMA error: Channel request error
32 — Processor error interrupt but no bits are set in error registers
33 — Bad operating system trap (OST) detected by the kernel

d = If supplemental data is gathered for this error, it will be placed in the appropriate log file. This identification flag can be used to find the entry in the log file.

For format 2, the error data will be in either the ERLOG or MEMLOG log file. The log file name is given in the action to be taken for each interrupt type.

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For format 3, the entry is always in the PMLOG file.

Items can be extracted from a log file using the OP:LOG input message, where ERLOG or MEMLOG is the log file being searched and the keyword (KW) argument is *d* the sequence number given above.

4. ACTION TO BE TAKEN

If a Format 2 message is output, follow the appropriate instructions for the specified interrupt type as given in the following table.

Table A
Interrupt Action Table

Interrupt Type	Action
2	This interrupt occurs only on 3B21D machines. It indicates that an error has occurred on the on-line CC EAI circuitry. Analyze the accompanying REPT-ERSLOT output message and take appropriate action as stated in the REPT-ERSLOT output manual pages.
8	This error typically implicates a memory array board. Refer to the Error Analysis section of the *System Maintenance Manual*, to determine the faulty memory array board. Run all of the phases of the main store controller (MASC) diagnostics, including the demand phases. If a failure occurs, replace the faulty pack. If there is no failure, but there are repeated errors, try rotating the pack to another slot to see if the error follows the pack.
0B	If this is an isolated failure, no action is required. If repeated failures occur, the maintenance channel may have a fault. Check the cabling and run diagnostics. The error entry is in ERLOG.
0C	This error may implicate the store controller or a store array. Calculate the faulty store array and run diagnostics as for interrupt type 8. If there is no fault, restore the unit to service.
0D	This error typically implicates a memory array board. Refer to the Error Analysis section of the *System Maintenance Manual*, to determine the faulty memory array board. Run all of the phases of the main store controller (MASC) diagnostics, including the demand phases. If a failure occurs, replace the faulty pack. If there is no failure, but there are repeated errors, try rotating the pack to another slot to see if the error follows the pack.

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Table A
Interrupt Action Table (*continued*)

Interrupt Type	Action
0E	This error typically implicates a memory array board. Refer to the Error Analysis section of the *System Maintenance Manual*, to determine the faulty memory array board. Run all of the phases of the main store controller (MASC) diagnostics, including the demand phases. If a failure occurs, replace the faulty pack. If there is no failure, but there are repeated errors, try rotating the pack to another slot to see if the error follows the pack.
0F	Check the update cables and run diagnostics on the off-line main store and update circuits. The error data is in ERLOG.
10	Get the channel number and channel address from the corresponding entry in ERLOG. If the address corresponds to a 3x6 code, but the channel is unequipped, the data base may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the data base. If the error occurs on one processor and not the other, run diagnostics on the processor that encounters the fault.
11	Get the hardware status register from the corresponding entry in ERLOG. The channel address can be determined as follows: channel address = (hardware status register & If the address corresponds to a 3x6 code, but the channel is unequipped, the database may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the data base. If the error occurs on one processor and not the other, run diagnostics on the processor that encounters the fault.

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Table A
Interrupt Action Table (*continued*)

Interrupt Type	Action
12	Get the hardware status register from the corresponding entry in ERLOG. The channel address can be determined as follows: channel address = (hardware status register & If the address corresponds to a 3x6 code, but the channel is unequipped, the data base may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the data base. If the error occurs on one processor and not the other, run diagnostics on the processor that encounters the fault.
13	Get the hardware status register from the corresponding entry in ERLOG. The channel address can be determined as follows: channel address = (hardware status register & If the address corresponds to a 3x6 code, but the channel is unequipped, the data base may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the data base. If the error occurs on one processor and not the other, run diagnostics on the processor that encounters the fault.
14	This error typically implicates a memory array board. Refer to the Error Analysis section of the *System Maintenance Manual*, to determine the faulty memory array board. Run all of the phases of the main store controller (MASC) diagnostics, including the demand phases. If a failure occurs, replace the faulty pack. If there is no failure, but there are repeated errors, try rotating the pack to another slot to see if the error follows the pack.
15	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, program address (PA) and program status word (PSW), should be reported according to local procedures, including the error log data.

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Table A
Interrupt Action Table (*continued*)

Interrupt Type	Action
16	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
17	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
18	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
19	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
1A	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
1C	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
1D	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
1E	If repeated failures occur, run diagnostics on the processor encountering the fault. The error data is recorded in ERLOG.

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Table A
Interrupt Action Table (*continued*)

Interrupt Type	Action
20	This error can occur only if hardware checks are blocked. The corresponding ERLOG entry contains the direct memory access (DMA) store data register. This can be used to determine the bad memory location. Diagnose the main store if there are multiple errors of this type.
21	This is a software error that was detected by the DMA and is a fatal DMA error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
22	This error typically implicates a memory array board detected by the DMA and is a fatal DMA error. The error data is recorded in ERLOG. This error typically implicates a memory array board. Refer to the Error Analysis section of the *System Maintenance Manual*, to determine the faulty memory array board. Run all of the phases of the main store controller (MASC) diagnostics, including the demand phases. If a failure occurs, replace the faulty pack. If there is no failure, but there are repeated errors, try rotating the pack to another slot to see if the error follows the pack.
25	This error is in a channel under the DMA, but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
26	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
27	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
28	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.

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Table A
Interrupt Action Table (*continued*)

Interrupt Type	Action
29	This error is in a channel under the DMA, but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
2A	This error is in a channel under the DMA, but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
2B	This error is in a channel under the DMA, but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
2C	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
2D	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
2E	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
2F	This error is in a channel under the DMA, but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
30	This error is in a channel under the DMA, but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.

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Table A
Interrupt Action Table (*continued*)

Interrupt Type	Action
32	If this problem persists, diagnose the faulty CU. This can be an improperly wired interrupt source register. The error data is recorded in ERLOG.
33	The kernel has detected a bad operating system trap. Identification of the offending process is possible by examining the ERLOG log file or the corresponding error data printed on the receive-only printer (ROP).

For format 3 errors, refer to the *System Maintenance Manual* for analysis of maintenance interrupt data. The analysis is done similarly to the post mortem analysis with the following additions:

1. The source will always be software or hardware.
2. For software sources, the utility ID and panic code determine the cause.
3. For hardware sources, examine the MICROCODE SAVE STATE for
   a. Stop and switch errors in the error register.
   b. A one (1) in bits 6 or 7 of the timer register (TMR), indicating the sanity timer fired.
   c. A micro-interrupt error with either the interrupts blocked (system status register [SSR]) or the execution at level 15 (PSW).

Any hardware error implicates the sanity of the faulty CU while, in general, software errors are caused by program malfunctions. However, any recurring error on one CU implicates that CU. Run diagnostics, including demand phases, if necessary.

5. ALARMS

For a minor alarm, take action as indicated in the report.

6. REFERENCES

OMDB Key
Format 3 has an OMDB key of 425.

Input Messages
DEL:LOG
DGN:CU
OP:LOG
OP:MEMERRS

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
DGN-CU
DGN-CU,MASC

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ID . . . . . REPT-CURSTRMV
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `REPT CURSTRMV FAULT TYPE` *a* `UNIT =` *b* `ASSERT =` *c*

[2] `REPT CURSTRMV FAULT TYPE` *a* `UNIT =` *b*
`MICROSTORE PUMP FAILED`

[3] `REPT CURSTRMV FAULT TYPE` *a* `UNIT =` *b*
`PHYSICAL MEMORY PUMP FAILED`

[4] `REPT CURSTRMV FAULT TYPE` *a* `UNIT =` *b*
`UPDATE FAILED IN MEMORY BLOCK` *d*

[5] `REPT CURSTRMV FAULT TYPE` *a* `INACCESSIBLE RID =` *e*
`ASSERT =` *c*

[6] `REPT CURSTRMV FAULT TYPE` *a* `CHECKSUM FAILED IN SLOT` *f*
`ASSERT =` *c*

[7] `REPT CURSTRMV CU RESTORE CONTINUING,DIAGNOSTIC`
`FAILURE IN NON-CRITICAL UNIT`

[8] `REPT CURSTRMV FAULT TYPE` *a* `UNIT =` *b*
`OOS CU FORCED OFFLINE`

2. REASON FOR OUTPUT

To report a fault condition in the control unit restore or remove (CURSTRMV) process.

Format 5 prints when the name of the unit cannot be determined in response to manual and automatic `RMV` or `RST` request.

3. VARIABLE FIELD DEFINITIONS

a = One or more of the following fault types.

`BOOT` — Bootfile access problem.

`CURS` — `CURSTRMV` internal failure.

`ECDA` — Equipment configuration data base (ECD) access problem.

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ECDD — ECD data invalid.

EEIH — Processor control process error interrupt handler (PCPEIH) error.

EMEM — Memory size from ECD different from equipped memory size.

EMM — EMM straps do not match on both control units (CU).

EPCP — Processor control process maintenance driver (PCPMD) error.

IARG — Invalid argument.

MPF — Microstore pump failed.

OPCP — Cannot open process control process maintenance driver (PCPMD).

OSPL — Cannot open spooler.

PMPF — Physical memory pump failed.

RSTCOD — Restore code access problem.

RTS — Could not send message to RTS.

UCOD — Could not load micro code.

UF — Update failed.

VTOC — Volume table of contents (VTOC) access problem.

FOFL — Problem with the system status register (SSR) forced off-line bit.

b = Name and number of unit.

c = Identification number (ASSERT number) of the fault in the CURSTRMV process. Useful only to RTR development seeking to resolve the problem.

d = Starting address of the memory block.

e = Record ID (RID) of the unit control block (UCB) record in the ECD.

f = Microstore slot number of failing checksum.

4. ACTION TO BE TAKEN

Messages referring to a microstore pump failure, a physical memory pump failure, or an update failure generally indicate hardware problems with the off-line CU. If the message indicates the off-line CU is forced, clear the force from the emergency action interface (EAI) page on the maintenance terminal. For the EMM type message, make sure the EMM straps are either *on* or *off* on both CUs. For other cases, save a copy of the output message and seek technical assistance.

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5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 421.
Formats 2, 3, 4 and 8 have an OMDB key of 422.
Format 5 has an OMDB key of 420.
Format 6 has an OMDB key of 423.
Format 7 has an OMDB key of 433.

Section 3

Output Message Alphabetical Indexes

Message Name	Message ID	Generic
ACTV OMDB	ACTV-OMDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW AUD	ALW-AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW CONFLOG	ALW-CONFLOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW DMQ	ALW-DMQ-A	UNIX RTR R1.5 only
ALW DMQ	ALW-DMQ-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW EAIINT	ALW-EAIINT	UNIX RTR R21.3, R21.11, R21.15 and later
ALW ERRCHK	ALW-ERRCHK-A	UNIX RTR R1.5 only
ALW ERRCHK	ALW-ERRCHK-B	UNIX RTR R6.4 only
ALW ERRCHK	ALW-ERRCHK-C	UNIX RTR R21.3, R21.11, R21.15 and later
ALW ERRINT	ALW-ERRINT-A	UNIX RTR R1.5 only
ALW ERRINT	ALW-ERRINT-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW ERRSRC	ALW-ERRSRC-A	UNIX RTR R1.5 only
ALW ERRSRC	ALW-ERRSRC-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW FILESYS ACCESS	ALW-F,ACCESS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW FILESYS MOUNT	ALW-F,MOUNT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW FILESYS OWNER	ALW-F,OWNER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW HDWCHK	ALW-HDWCHK-A	UNIX RTR R1.5 only
ALW HDWCHK	ALW-HDWCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW REX	ALW-REX	UNIX RTR R21.3, R21.11, R21.15 and later
ALW SCSD	ALW-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
ALW SFTCHK	ALW-SFTCHK-A	UNIX RTR R1.5 only
ALW SFTCHK	ALW-SFTCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW UMEM	ALW-UMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW UTIL	ALW-UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW UTILFLAG	ALW-UTILFLAG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ANALY TLPFILE	ANALY-TLPFILE-A	UNIX RTR R1.5, R6.4, and R21.3,
ANALY TLPFILE	ANALY-TLPFILE-B	UNIX RTR R21.11, R21.15, R21.17 and R21.31
ANALY TLPFILE	ANALY-TLPFILE-C	UNIX RTR R21.23, R21.27 and R21.30
ANALY TLPFILE	ANALY-TLPFILE-D	UNIX RTR R21.35 and later
APPENDIX ACKDGMNT DATABASE	APP-ACK-DB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT A	APP-AUD-APPA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT B	APP-AUD-APPB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT C	APP-AUD-APPC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT D	APP-AUD-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUTHORITY CODE	APP-AUTH-CODE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX BOOTDISKCHK	APP-BOOTDISKCHK	UNIX RTR R21.27 and later
APPENDIX DCI A	APP-DCI-APPA-A	UNIX RTR R21.3 and R21.11
APPENDIX DCI A	APP-DCI-APPA-B	UNIX RTR R21.15 thru R21.30
APPENDIX DCI A	APP-DCI-APPA-C	UNIX RTR R21.31 and later
APPENDIX DCI B	APP-DCI-APPB-A	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI C	APP-DCI-APPC	UNIX RTR R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
APPENDIX DCI D	APP-DCI-APPD	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI E	APP-DCI-APPE	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI F	APP-DCI-APPF	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI G	APP-DCI-APPG	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI H	APP-DCI-APPH	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DFC A	APP-DFC-APPA-A	UNIX RTR R1.5 only
APPENDIX DFC A	APP-DFC-APPA-B	UNIX RTR R6.4 only
APPENDIX DFC A	APP-DFC-APPA-C	UNIX RTR R21.3 only
APPENDIX DFC A	APP-DFC-APPA-D	UNIX RTR R21.11, R21.15, 21.19 thru 21.25
APPENDIX DFC A	APP-DFC-APPA-F	UNIX RTR R21.23 only
APPENDIX DFC A	APP-DFC-APPA-G	UNIX RTR R21.27 and R21.30
APPENDIX DFC A	APP-DFC-APPA-H	UNIX RTR R21.31, R21.33 and later
APPENDIX DFC B	APP-DFC-APPB-A	UNIX RTR R1.5 and R6.4
APPENDIX DFC B	APP-DFC-APPB-B	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DFC C	APP-DFC-APPC-A	UNIX RTR R1.5 and R6.4
APPENDIX DFC C	APP-DFC-APPC-B	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DFC D	APP-DFC-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC E	APP-DFC-APPE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC F	APP-DFC-APPF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC G	APP-DFC-APPG-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
APPENDIX DFC G	APP-DFC-APPG-B	UNIX RTR R21.11 and R21.15
APPENDIX DFC H	APP-DFC-APPH-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
APPENDIX DFC H	APP-DFC-APPH-B	UNIX RTR R21.11 and R21.15
APPENDIX DFC I	APP-DFC-APPI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
APPENDIX DFC J	APP-DFC-APPJ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC K	APP-DFC-APPK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC L	APP-DFC-APPL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC M	APP-DFC-APPM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC N	APP-DFC-APPN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC O	APP-DFC-APPO	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC P	APP-DFC-APPP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX FAULT CODE	APP-FAULT-CODE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX FIELD MAINT CODES	APP-FMC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX FLD UDATE ERROR CODES	APP-FUEC-APP	UNIX R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP A	APP-IOP-APPA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP B	APP-IOP-APPB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP C	APP-IOP-APPC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP D	APP-IOP-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP E	APP-IOP-APPE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP F	APP-IOP-APPF-A	UNIX RTR R1.5 and R6.4
APPENDIX IOP F	APP-IOP-APPF-B	UNIX RTR R21.3, R21.11, R21.15 thru R21.25
APPENDIX IOP F	APP-IOP-APPF-C	UNIX RTR R21.27 and later

Message Name	Message ID	Generic
APPENDIX IOP G	APP-IOP-APPG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP H	APP-IOP-APPH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP I	APP-IOP-APPI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP J	APP-IOP-APPJ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX LLA	APP-LLA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MEMBER NUMBERS B	APP-MEM-NUM-APPB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MEMBER NUMBERS C	APP-MEM-NUM-APPC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MEMBER NUMBERS D	APP-MEM-NUM-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MESSAGE CLASS	APP-MSGCLASS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX OMDB X REF	APP-OMDB-REF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX OP FNAME	APP-OP-FNAME	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX OST	APP-OST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX SUPR	APP-SUPR-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
APPENDIX SUPR	APP-SUPR-B	UNIX RTR R21.27 and later
APPENDIX SUPR MENU PAGE	APP-SUPR-MENU-PG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX SYSTEM ERROR CODES	APP-SYSERR-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
APPENDIX SYSTEM ERROR CODES	APP-SYSERR-B	UNIX RTR R21.11 and R21.15
APPENDIX TAPE LIBRARY ERRORS	APP-TAPE-LIB	UNIX RTR R21.15 and later
APPENDIX UTILITY ID	APP-UTIL-ID-A	UNIX RTR R1.5, R6.4, R21.3, and R21.11
APPENDIX UTILITY ID	APP-UTIL-ID-B	UNIX RTR R21.15 and later

Message Name	Message ID	Generic
APPLY OMDB	APPLY-OMDB-A	UNIX RTR R1.5 only
APPLY OMDB	APPLY-OMDB-B	UNIX RTR R6.4 and R21.3
APPLY OMDB	APPLY-OMDB-C	UNIX RTR R21.11, R21.15 and later
AUD CUMEM	AUD-CUMEM-A	UNIX RTR R1.5 only
AUD CUMEM	AUD-CUMEM-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD CUSTAT	AUD-CUSTAT-A	UNIX RTR R1.5 only
AUD CUSTAT	AUD-CUSTAT-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD ECD	AUD-ECD-A	UNIX RTR R1.5 only
AUD ECD	AUD-ECD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD ECDOWN	AUD-ECDOWN-A	UNIX RTR R1.5 only
AUD ECDOWN	AUD-ECDOWN-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 1	AUD-FMGR1-A	UNIX RTR R1.5 only
AUD FMGR 1	AUD-FMGR1-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 2	AUD-FMGR2-A	UNIX RTR R1.5 only
AUD FMGR 2	AUD-FMGR2-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 3	AUD-FMGR3-A	UNIX RTR R1.5 only
AUD FMGR 3	AUD-FMGR3-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 4	AUD-FMGR4-A	UNIX RTR R1.5 only
AUD FMGR 4	AUD-FMGR4-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 5	AUD-FMGR5-A	UNIX RTR R1.5 only
AUD FMGR 5	AUD-FMGR5-B	UNIX RTR R6.4 only
AUD FMGR 5	AUD-FMGR5-C	UNIX RTR R21.3, R21.11, R21.15 and later
AUD FMGR 6	AUD-FMGR6-A	UNIX RTR R1.5 only
AUD FMGR 6	AUD-FMGR6-B	UNIX RTR R6.4, R21.11, R21.15 thru R21.27
AUD FMGR 6	AUD-FMGR6-C	UNIX RTR R21.3, R21.29 and later
AUD FMGR 7	AUD-FMGR7-A	UNIX RTR R1.5 only
AUD FMGR 7	AUD-FMGR7-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
AUD FMGR 8	AUD-FMGR8-A	UNIX RTR R1.5 only
AUD FMGR 8	AUD-FMGR8-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 9	AUD-FMGR9-A	UNIX RTR R1.5 only
AUD FMGR 9	AUD-FMGR9-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FSBLK	AUD-FSBLK-A	UNIX RTR R1.5 only
AUD FSBLK	AUD-FSBLK-B	UNIX RTR R6.4 only
AUD FSBLK	AUD-FSBLK-C	UNIX RTR R21.3 and R21.11
AUD FSBLK	AUD-FSBLK-D	UNIX RTR R21.15 and later
AUD FSCMPT	AUD-FSCMPT-A	UNIX RTR R1.5 only
AUD FSCMPT	AUD-FSCMPT-B	UNIX RTR R6.4 only
AUD FSCMPT	AUD-FSCMPT-C	UNIX RTR R21.3 and R21.11
AUD FSCMPT	AUD-FSCMPT-D	UNIX RTR R21.15 and later
AUD FSLINK	AUD-FSLINK-A	UNIX RTR R1.5 only
AUD FSLINK	AUD-FSLINK-B	UNIX RTR R6.4 only
AUD FSLINK	AUD-FSLINK-C	UNIX RTR R21.3 and R21.11
AUD FSLINK	AUD-FSLINK-D	UNIX RTR R21.15 and later
AUD MMGR	AUD-MMGR-A	UNIX RTR R1.5 only
AUD MMGR	AUD-MMGR-B	UNIX RTR R6.4 only
AUD MMGR	AUD-MMGR-C	UNIX RTR R21.3, R21.11, R21.15 and later
AUD MSGBUF	AUD-MSGBUF-A	UNIX RTR R1.5 only
AUD MSGBUF	AUD-MSGBUF-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD PMS	AUD-PMS-A	UNIX RTR R1.5 only
AUD PMS	AUD-PMS-B	UNIX RTR R6.4, R21.11, R21.15 and R21.17
AUD PMS	AUD-PMS-C	UNIX RTR R21.3, R21.19 and later
AUD PROAD	AUD-PROAD-A	UNIX RTR R1.5 only
AUD PROAD	AUD-PROAD-B	UNIX RTR R6.4 only
AUD PROAD	AUD-PROAD-C	UNIX RTR R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
CFR DUPLEXDISKS	CFR-DUPLEXDISKS	UNIX R21.27 and later
CLR EMERDMP	CLR-EMERDMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR FILESYS DIR	CLR-F,DIR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR FILESYS FILE	CLR-F,FILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR FANALM	CLR-FANALM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR IMCAT	CLR-IMCAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR IODRV	CLR-IODRV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR IOMEM	CLR-IOMEM	UNIX RTR R21.27 and later
CLR MHD MAEC	CLR-M,MAEC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
CLR PTN	CLR-PTN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR UMEM	CLR-UMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR UTIL	CLR-UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR UTILFLAG	CLR-UTILFLAG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CMPR DISK CORE	CMPR-D,CORE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CMPR MHD	CMPR-MHD-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
CMPR MHD	CMPR-MHD-B	UNIX RTR R21.11 and R21.15
COPY ACTDISK	COPY-ACTDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY ADDR	COPY-ADDR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY BKDISK	COPY-BKDISK-A	UNIX RTR R1.5 and R6.4
COPY BKDISK	COPY-BKDISK-B	UNIX RTR R21.3 and R21.11
COPY BKDISK	COPY-BKDISK-C	UNIX RTR R21.15 and later
COPY BKTAPE	COPY-BKTAPE	UNIX RTR R21.15 and later

Message Name	Message ID	Generic
COPY DIFF SRC	COPY-DIFF,SRC-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
COPY DIFF SRC	COPY-DIFF,SRC-B	UNIX RTR R21.11 and R21.15
COPY FILESYS CFILE	COPY-F,CFILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY FILESYS FILE	COPY-F,FILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY OOSDISK	COPY-OOSDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY PTN ALL	COPY-P,ALL-A	UNIX RTR R1.5, R6.4, R21.3 and R21.11
COPY PTN ALL	COPY-P,ALL-B	UNIX RTR R21.15 and later
COPY PID	COPY-PID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY REG	COPY-REG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY SPDISK	COPY-SPDISK-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
COPY SPDISK	COPY-SPDISK-B	UNIX RTR R21.27 and later
COPY TAPE EMERDMP	COPY-T,EMERDMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE IN	COPY-T,IN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE OUT	COPY-T,OUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE TEST	COPY-T,TEST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE TOP	COPY-T,TOP	UNIX RTR R21.3, R21.11, R21.15 and later
COPY UID	COPY-UID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY UVAR	COPY-UVAR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CU RECOVERY	CU-RECOVERY	UNIX RTR R21.11, R21.15 and later
DEL LOG	DEL-LOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
DGN AUDIT	DGN-AUDIT	UNIX RTR R1.5 only
DGN CU	DGN-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN CU MASC	DGN-CU,MASC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN DCI	DGN-DCI	UNIX RTR R21.3, R21.11, R21.15 and later
DGN DFC	DGN-DFC-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
DGN DFC	DGN-DFC-B	UNIX RTR R21.27 and later
DGN DUIC	DGN-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN HSDC	DGN-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN IOP	DGN-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN MHD	DGN-MHD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN MT	DGN-MT	UNIX RTR R21.3, R21.11, R21.15 and later
DGN MTC	DGN-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN MTTYC	DGN-MTTYC-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
DGN MTTYC	DGN-MTTYC-B	UNIX RTR R21.27 and later
DGN SCSDC	DGN-SDSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN SDLC	DGN-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN TTYC	DGN-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP ADDR	DUMP-ADDR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP BKTAPE	DUMP-BKTAPE	UNIX RTR R21.15 and later
DUMP CACHE	DUMP-CACHE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP FILE ALL	DUMP-F,ALL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
DUMP FILE FORMAT	DUMP-F,FORMAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP FILE PARTL	DUMP-F,PARTL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP KERN	DUMP-KERN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP MHD BLOCK	DUMP-MHD,BLK-A	UNIX RTR R1.5 only
DUMP MHD BLOCK	DUMP-MHD,BLK-B	UNIX RTR R6.4 only
DUMP MHD BLOCK	DUMP-MHD,BLK-C	UNIX RTR R21.3, R21.11, R21.15 and later
DUMP MHD DEFECT	DUMP-MHD,DEF-A	UNIX RTR R1.5 only
DUMP MHD DEFECT	DUMP-MHD,DEF-B	UNIX RTR R6.4 only
DUMP MHD DEFECT	DUMP-MHD,DEF-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.21
DUMP MHD DEFECT	DUMP-MHD,DEF-D	UNIX RTR R21.23 and later
DUMP MHD VTOC	DUMP-MHD,VTO-A	UNIX RTR R1.5 only
DUMP MHD VTOC	DUMP-MHD,VTO-B	UNIX RTR R6.4 only
DUMP MHD VTOC	DUMP-MHD,VTO-C	UNIX RTR R21.3, R21.11, R21.15 and later
DUMP PID	DUMP-PID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP PMEM	DUMP-PMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP REG	DUMP-REG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP UID	DUMP-UID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP UVAR	DUMP-UVAR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX CU	EX-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX DCI	EX-DCI	UNIX RTR R21.3, R21.15 and later
EX DFC	EX-DFC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX DUIC	EX-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX HSDC	EX-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
EX IOP	EX-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX LDPARM	EX LDPARM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX LOOP	EX-LOOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX MHD	EX-MHD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX MT	EX-MT	UNIX RTR R21.3, R21.11, R21.15 and later
EX MTC	EX-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX MTTYC	EX-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX PAUSE	EX-PAUSE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX SCSDC	EX-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX SDLC	EX-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
EX STEP	EX-STEP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX STOP	EX-STOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX TTYC	EX-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EXC ENVIR PROC	EXC-E,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EXC ENVIR UPROC	EXC-E,UPROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EXC OFLBOOT	EXC-OFLBOOT-A	UNIX RTR R21.3 and R21.11
EXC OFLBOOT	EXC-OFLBOOT-B	UNIX RTR R21.15 and later
IN FILE APND	IN-F,APND	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN FILE DEL	IN-F,DEL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN FILE REPL	IN-F,REPL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN FILESYS DIR	IN-FI,DIR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
IN REMOTE	IN-REM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE ERROR	IN-REM,ERROR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE INITIALIZED	IN-REM,INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE STARTED	IN-REM,START	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE STOPPED	IN-REM,STOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN XFER	IN-XFER	UNIX RTR R21.11, R21.15 and later
INH AUD	INH-AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH CONFLOG	INH-CONFLOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH DMQ	INH-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH EAIINT	INH-EAIINT	UNIX RTR R21.3, R21.11, R21.15 and later
INH ERRCHK	INH-ERRCHK-A	UNIX RTR R1.5 only
INH ERRCHK	INH-ERRCHK-B	UNIX RTR R6.4 only
INH ERRCHK	INH-ERRCHK-C	UNIX RTR R21.3, R21.11, R21.15 and later
INH ERRINT	INH-ERRINT-A	UNIX RTR R1.5 only
INH ERRINT	INH-ERRINT-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH ERRSRC	INH-ERRSRC-A	UNIX RTR R1.5 only
INH ERRSRC	INH-ERRSRC-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH FILESYS UMOUNT	INH-F,UMOUNT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH HDWCHK	INH-HDWCHK-A	UNIX RTR R1.5 only
INH HDWCHK	INH-HDWCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH REX	INH-REX	UNIX RTR R21.3, R21.11, R21.15 and later
INH SCSD	INH-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
INH SFTCHK	INH-SFTCHK-A	UNIX RTR R1.5 only
INH SFTCHK	INH-SFTCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH UMEM	INH-UMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH UTIL	INH-UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH UTILFLAG	INH-UTILFLAG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INIT MHD	INIT-MHD-A	UNIX RTR R1.5 only
INIT MHD	INIT-MHD-B	UNIX RTR R6.4 only
INIT MHD	INIT-MHD-C	UNIX RTR R21.3, R21.11, R21.15 and later
INIT ULARP	INIT-ULARP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INIT UMEM	INIT-UMEM-A	UNIX RTR R1.5 only
INIT UMEM	INIT-UMEM-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
LOAD ADDR	LOAD-ADDR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
LOAD DFC PUMP	LOAD-DFC,PUMP-A	UNIX RTR R6.4 only
LOAD DFC PUMP	LOAD-DFC,PUMP-B	UNIX RTR R21.3 and R21.11
LOAD DFC PUMP	LOAD-DFC,PUMP-C	UNIX RTR R21.15 and later
LOAD DFC RAM	LOAD-DFC,RAM-A	UNIX RTR R6.4 only
LOAD DFC RAM	LOAD-DFC,RAM-B	UNIX RTR R21.3, R21.11, R21.15, and later
LOAD MHD	LOAD-MHD-A	UNIX RTR R1.5 and R6.4
LOAD MHD	LOAD-MHD-B	UNIX RTR R21.3 and R21.11
LOAD MHD	LOAD-MHD-C	UNIX RTR R21.15 and later
LOAD MHD DEFECT	LOAD-MHD,DEF-A	UNIX RTR R1.5 only
LOAD MHD DEFECT	LOAD-MHD,DEF-B	UNIX RTR R6.4 only
LOAD MHD DEFECT	LOAD-MHD,DEF-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.21
LOAD MHD DEFECT	LOAD-MHD,DEF-D	UNIX RTR R21.23 only
LOAD MHD DEFECT	LOAD-MHD,DEF-E	UNIX RTR R21.25 and later
LOAD MHD FIRMWARE	LOAD-MHD,FIRM-A	UNIX RTR R6.4 only
LOAD MHD FIRMWARE	LOAD-MHD,FIRM-B	UNIX RTR R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
LOAD PMEM	LOAD-PMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
LOAD REG	LOAD-REG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
LOAD UVAR	LOAD-UVAR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ABD	OP-ABD	UNIX RTR R21.27 and later
OP ACT	OP-ACT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP AUD	OP-AUD-A	UNIX RTR R1.5 only
OP AUD	OP-AUD-B	UNIX RTR R6.4 only
OP AUD	OP-AUD-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP AUDERR	OP-AUDERR-A	UNIX RTR R1.5 only
OP AUDERR	OP-AUDERR-B	UNIX RTR R6.4 only
OP AUDERR	OP-AUDERR-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP CFGSTAT	OP-CFGSTAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP CLK	OP-CLK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP CONTROLLER INFO	OP-CONTROLLER,INFO	UNIX RTR R21.37 and later
OP DEVICE INFO	OP-DEVICE,INFO	UNIX RTR R21.37 and later
OP DFC INFO	OP-DFC,INFO-A	UNIX RTR R1.5 only
OP DFC INFO	OP-DFC,INFO-B	UNIX RTR R6.4 only
OP DFC INFO	OP-DFC,INFO-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.25
OP DFC INFO	OP-DFC-INFO-D	UNIX RTR R21.27 and later
OP DFCELOG	OP-DFCELOG-A	UNIX RTR R1.5 only
OP DFCELOG	OP-DFCELOG-B	UNIX RTR R6.4 only
OP DFCELOG	OP-DFCELOG-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP DMQ	OP-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP EMERSTAT	OP-EMERSTAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
OP ERRCHK	OP-ERRCHK-A	UNIX RTR R1.5 and R6.4
OP ERRCHK	OP-ERRCHK-B	UNIX RTR R21.3, R21.11, R21.15 and later
OP FNAME	OP-FNAME-A	UNIX RTR R1.5 and R6.4
OP FNAME	OP-FNAME-B	UNIX RTR R21.3, R21.11, R21.15 and later
OP GEN READLOG	OP-G,READLOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP GROW	OP-GROW	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP INIT	OP-INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP IODRV	OP-IODRV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP IOP INFO	OP-IOP,INFO	UNIX RTR R21.27 and later
OP LOG	OP-LOG-A	UNIX RTR R1.5 and R6.4
OP LOG	OP-LOG-B	UNIX RTR R21.3, R21.,11, R21.15 and later
OP MEMERRS	OP-MEMERRS-A	UNIX RTR R1.5 only
OP MEMERRS	OP-MEMERRS-B	UNIX RTR R6.4 only
OP MEMERRS	OP-MEMERRS-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP MHD INFO	OP-MHD,INFO-A	UNIX RTR R1.5 only
OP MHD INFO	OP-MHD,INFO-B	UNIX RTR R6.4 only
OP MHD INFO	OP-MHD,INFO-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.25
OP MHD INFO	OP-MHD,INFO-D	UNIX RTR R21.27 and later
OP MT INFO	OP-MT,INFO	UNIX RTR R21.3, R21.11, R21.15 and later
OP OFL	OP-OFL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP OMDB	OP-OMDB-A	UNIX RTR R1.5, R6.4 and R21.3
OP OMDB	OP-OMDB-B	UNIX RTR R21.11, R21.15 and later

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Message Name	Message ID	Generic
OP OOS	OP-OOS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP PMCR ERROR	OP-PMCR-A	UNIX RTR R1.5, R6.4 and R21.3
OP PMCR ERROR	OP-PMCR-B	UNIX RTR R21.11, R21.15 and later
OP REXINH	OP-REXINH-A	UNIX RTR R1.5 and R6.4
OP REXINH	OP-REXINH-B	UNIX RTR R21.3, R21.11, R21.15 and later
OP SCSD	OP-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS DISKUSE	OP-ST,DISKUSE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS FILESYS	OP-ST,FILESYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS FREEDISK	OP-ST,FRDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP TATUS LISTDIR	OP-ST,LSTDIR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS PORTS	OP-ST,PORTS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS PROCESS	OP-ST,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS SUM	OP-ST,SUM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STBY	OP-STBY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ULARP COMMAND	OP-ULARP,COM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ULARP EXECSEQ	OP-ULARP,EXEC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ULARP PROCESS	OP-ULARP,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP UMEM	OP-UMEM-A	UNIX RTR R1.5 only
OP UMEM	OP-UMEM-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
OP UNAV	OP-UNAV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP UNEQIP	OP-UNEQIP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
OP UTIL	OP-UTIL-A	UNIX RTR R1.5 only
OP UTIL	OP-UTIL-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
OP VERSION	OP-VERSION	UNIX RTR R21.11, R21.15 and later
ORD SCSD	ORD-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
PRM 0	PRM-0	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTECD VFY	RCV-DMTECD,VFY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTSG VFY	RCV-DMTSG,VFY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU	RCV-MENU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCVRY ALARM	RCVRY-ALARM	UNIX RTR R21.11, R21.15 and later
RCVRY CU	RCVRY-CU	UNIX RTR R1.5 only
RCVRY DUI	RCVRY-DUI	UNIX RTR R1.5 only
RCVRY DUIC	RCVRY-DUIC	UNIX RTR R1.5 only
RCVRY HSD	RCVRY-HSD	UNIX RTR R1.5 only
RCVRY HSDC	RCVRY-HSDC	UNIX RTR R1.5 only
RCVRY IOP	RCVRY-IOP	UNIX RTR R1.5 only
RCVRY MT	RCVRY-MT	UNIX RTR R1.5 only
RCVRY MTC	RCVRY-MTC	UNIX RTR R1.5 only
RCVRY MTTY	RCVRY-MTTY	UNIX RTR R1.5 only
RCVRY MTTYC	RCVRY-MTTYC	UNIX RTR R1.5 only
RCVRY ROP	RCVRY-ROP	UNIX RTR R1.5 only
RCVRY SCC	RCVRY-SCC	UNIX RTR R1.5 only
RCVRY SCSDC	RCVRY-SCSDC	UNIX RTR R1.5 only
RCVRY SDL	RCVRY-SDL	UNIX RTR R1.5 only
RCVRY SDLC	RCVRY-SDLC	UNIX RTR R1.5 only
RCVRY TTY	RCVRY-TTY	UNIX RTR R1.5 only
RCVRY TTYC	RCVRY-TTYC	UNIX RTR R1.5 only
REPT ADP	REPT-ADP-A	UNIX RTR R1.5 only
REPT ADP	REPT-ADP-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT ADP AUTORST	REPT-ADP,AUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT ADP INHIBIT ACTIVE	REPT-ADP,INHIBIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ADP INTERFACE ERROR	REPT-ADP,INTER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ADPAB	REPT-ADPAB-A	UNIX RTR R1.5 only
REPT ADPAB	REPT-ADPAB-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT ANALY TLP	REPT-ANALY,TLP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT AUDSTAT	REPT-AUDSTAT-A	UNIX RTR R1.5 only
REPT AUDSTAT	REPT-AUDSTAT-B	UNIX RTR R6.4 only
REPT AUDSTAT	REPT-AUDSTAT-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT AUTORST FAILURE	REPT-AUTORST-A	UNIX RTR R1.5 only
REPT AUTORST FAILURE	REPT-AUTORST-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT BAD ALIGN	REPT-BAD,ALIGN	UNIX RTR R1.5 only
REPT BAD OST	REPT-BAD,OST	UNIX RTR R1.5 only
REPT BAD PRTY DIO	REPT-BAD,PRTY-DIO	UNIX RTR R1.5 only
REPT BAD PRTY DMA	REPT-BAD,PRTY-DMA	UNIX RTR R1.5 only
REPT BDG	REPT-BDG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT BWMINT	REPT-BWMINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CCIO COMMAND	REPT-CCIO,CMD	UNIX RTR R1.5 only
REPT CCIO DATA PARITY	REPT-CCIO,DATA	UNIX RTR R1.5 only
REPT CD CIA	REPT-CD,CIA0	UNIX RTR R21.3, R21.11, R21.15 and later
REPT C/D DLGGETTY	REPT-CD,DLGGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT C/D ERROR	REPT-CD,ERROR-A	UNIX RTR R1.5 only
REPT C/D ERROR	REPT-CD,ERROR-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT C/D GETTY	REPT-CD,GETTY-A	UNIX RTR R1.5 only
REPT C/D GETTY	REPT-CD,GETTY-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT C/D POKER	REPT-CD,POKER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT C/D STARTER	REPT-CD,STARTER-A	UNIX RTR R1.5 only
REPT C/D STARTER	REPT-CD,STARTER-B	UNIX RTR R6.4, R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT C/D STARTER	REPT-CD,STARTER-C	UNIX RTR R21.3 only
REPT CFT LIB	REPT-CFT,LIB-A	UNIX RTR R1.5 and R6.4
REPT CFT LIB	REPT-CFT,LIB-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT CFTSHL	REPT-CFTSHL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CONFIG FAULT	REPT-CONFIG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CONFIG RECONFIGURATION	REPT-CONFIG,REC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
REPT CSOP	REPT-CSOP-A	UNIX RTR R1.5 only
REPT CSOP	REPT-CSOP-B	UNIX RTR R6.4 only
REPT CSOP	REPT-CSOP-C	UNIX RTR R21.3 only
REPT CSOP	REPT-CSOP-D	UNIX RTR R21.11, R21.15 and later
REPT CSOP FORMATTING	REPT-CSOP,FORM-A	UNIX RTR R1.5 and R6.4
REPT CSOP FORMATTING	REPT-CSOP,FORM-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT CSOP IN	REPT-CSOP,IN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CSOP PRIM	REPT-CSOP,PRIM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CU	REPT-CU-A	UNIX RTR R1.5, R6.4, R21.3, R21.11 and R21.15
REPT CU	REPT-CU-B	UNIX RTR R21.17 and later
REPT CURSTRMV FAULT	REPT-CURSTRMV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DCI	REPT-DCI	UNIX RTR R21.3, R21.11, R21.15 thru R21.30
REPT DCI	REPT-DCI	UNIX RTR R21.31 and later
REPT DCIDIP	REPT-DCIDIP	UNIX RTR R21.17 and later
REPT DEGROWTH	REPT-DEGROWTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DFC	REPT-DFC-A	UNIX RTR R1.5 only
REPT DFC	REPT-DFC-B	UNIX RTR R6.4 only.
REPT DFC	REPT-DFC-C	UNIX RTR R21.3 only
REPT DFC	REPT-DFC-D	UNIX RTR R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT DFC PUMP	REPT-DFC,PUMP	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT DFCE	REPT-DFCE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DFCI	REPT-DFCI-A	UNIX RTR R1.5 only
REPT DFCI	REPT-DFCI-B	UNIX RTR R6.4 only
REPT DFCI	REPT-DFCI-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT DFRMVRST ERROR	REPT-DFRMVRST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DGN	REPT-DGN-A	UNIX RTR R1.5 and R6.4
REPT DGN	REPT-DGN-B	UNIX RTR R21.3 only
REPT DGN	REPT-DGN-C	UNIX RTR R21.11, R21.15 and later
REPT DGN AUDIT	REPT-DGN,AUDIT	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT DIAMON	REPT-DIAMON	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DIO ACK	REPT-DIO,ACK	UNIX RTR R1.5 only
REPT DIO READY	REPT-DIO,READY	UNIX RTR R1.5 only
REPT DIOP	REPT-DIOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DKDIP	REPT-DKDIP-A	UNIX RTR R1.5 only
REPT DKDIP	REPT-DKDIP-B	UNIX RTR R6.4 only
REPT DKDIP	REPT-DKDIP-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT DKDRV	REPT-DKDRV-A	UNIX RTR R1.5 only
REPT DKDRV	REPT-DKDRV-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT DLGGETTY	REPT-DLGGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DLGSHL	REPT-DLGSHL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DMA ADDR	REPT-DMA,ADDR	UNIX RTR R1.5 only
REPT DMA ASW	REPT-DMA,ASW	UNIX RTR R1.5 only
REPT DMA CHNL	REPT-DMA,CHNL	UNIX RTR R1.5 only

Message Name	Message ID	Generic
REPT DMA RAM	REPT-DMA,RAM	UNIX RTR R1.5 only
REPT DMA ROM	REPT-DMA,ROM	UNIX RTR R1.5 only
REPT DMQ	REPT-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DUI	REPT-DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DUIC	REPT-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT EAI	REPT-EAI-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
REPT EAI	REPT-EAI-B	UNIX RTR R21.27 and later
REPT ECDMAN	REPT-ECDMAN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT EMERGENCY DUMP	REPT-EMER,DUMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ERRPORT	REPT-ERRPORT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ERSLOT	REPT-ERSLOT-A	UNIX RTR R6.4 only
REPT ERSLOT	REPT-ERSLOT-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT FAN	REPT-FAN-A	UNIX RTR R1.5 and R6.4
REPT FAN	REPT-FAN-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT FAN MULTI	REPT-FF,MULTI-A	UNIX RTR R1.5, R21.3, R21.11, R21.15 and later
REPT FAN MULTI	REPT-FF,MULTI-B	UNIX RTR R6.4 only
REPT FAN SINGLE	REPT-FF,SING-A	UNIX RTR R1.5, R21.3, R21.11, R21.15 and later
REPT FAN SINGLE	REPT-FF,SING-B	UNIX RTR R6.4 only
REPT FIELD MAINT	REPT-FIELD,MAINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FILESYS	REPT-FILESYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR	REPT-FMGR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR DSW	REPT-FMGR,DSW	UNIX RTR R21.3, R21.11, R21.15 and later
REPT FMGR ECD	REPT-FMGR,ECD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT FMGR FILSYS	REPT-FMGR,FILSYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR MOUNT	REPT-FMGR,MOUNT	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR NONTASK FAULT	REPT-FMGR,NF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR TABLE OVERLOAD	REPT-FMGR,OVLD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR PROCESS	REPT-FMGR,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR TASK STATUS	REPT-FMGR,TS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR UMNTFLD	REPT-FMGR-UMNTFLD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR UNMNT	REPT-FMGR,UNMNT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR WNDW	REPT-FMGR,WNDW	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FUSE ALARM	REPT-FUSE,ALM	UNIX RTR R21.3, R21.11, R21.15 and later
REPT GRASP	REPT-GRASP-A	UNIX RTR R1.5 only
REPT GRASP	REPT-GRASP-B	UNIX RTR R6.4 only
REPT GRASP	REPT-GRASP-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT GROWTH	REPT-GROWTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT HSD	REPT-HSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT HSDC	REPT-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ILL INSTRCT	REPT-ILL,INSTRCT	UNIX RTR R1.5 only
REPT ILL OPRND	REPT-ILL,OPRND	UNIX RTR R1.5 only
REPT ILL STACK	REPT-ILL,STACK	UNIX RTR R1.5 only
REPT INHADM	REPT-INHADM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT INHIBIT	REPT-INHIBIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT INIT	REPT-INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT INVLD ER INT	REPT-INVLD,ER-INT	UNIX RTR R1.5 only
REPT INVLD ER NUM	REPT-INVLD,ER-NUM	UNIX RTR R1.5 only

Message Name	Message ID	Generic
REPT INVLD MNTC	REPT-INVLD,MNTC	UNIX RTR R1.5 only
REPT IO CHNL ERR	REPT-IO,CHNL-ERR	UNIX RTR R1.5 only
REPT IODRV ATTRIBUTE	REPT-IODRV,AT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IODRV	REPT-IODRV,ERR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IODRV	REPT-IODRV,ERROR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IODRV	REPT-IODRV,FAULT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IOP	REPT-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IORMVRST ERROR	REPT-IORMVRST	UNIX RTR R1.5, R6.4, R21.3, and later
REPT KAUDPRC	REPT-KAUDPRC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT KLLA	REPT-KLLA	UNIX RTR R1.5 only
REPT LIBC ARGU	REPT-LIBC,ARGU	UNIX RTR R21.3, R21.11, R21.15 and later
REPT LIBC ER STRT	REPT-LIBC,ER-STRT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT LIBC EX	REPT-LIBC,EX	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT LIBC FAULT	REPT-LIBC,FL-A	UNIX RTR R1.5 and R6.4
REPT LIBC FAULT	REPT-LIBC,FL-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT LIBC FORK	REPT-LIBC,FO	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT LIBC PROGRAM	REPT-LIBC,PROGRAM	UNIX RTR R21.3, R21.11, R21.15 and later
REPT LIBC SAVE	REPT-LIBC,SAVE	UNIX RTR R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT LIBC START	REPT-LIBC,START	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MAINTENANCE REQUESTS	REPT-MAINT,REQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MAPFILE	REPT-MAPFILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MAXINTVL	REPT-MAXINTVL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MBD	REPT-MBD	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MEMORY PRTY	REPT-MEMORY,PRTY	UNIX RTR R1.5 only
REPT MHD	REPT-MHD-A	UNIX RTR R1.5 only
REPT MHD	REPT-MHD-B	UNIX RTR R6.4 only
REPT MHD	REPT-MHD-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT MIRA	REPT-MIRA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MKDSK	REPT-MKDSK	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR001	REPT-MMGR001	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR002	REPT-MMGR002	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR003	REPT-MMGR003-A	UNIX RTR R1.5 only
REPT MMGR003	REPT-MMGR003-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR004	REPT-MMGR004	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR005	REPT-MMGR005	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MOP	REPT-MOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MT	REPT-MT-A	UNIX RTR R1.5 and R6.4
REPT MT	REPT-MT-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT MTC	REPT-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT MTTY	REPT-MTTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MTTYC	REPT-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MY STORE A	REPT-MY,STORE-A	UNIX RTR R1.5 only
REPT MY STORE B	REPT-MY,STORE-B	UNIX RTR R1.5 only
REPT MY STORE C	REPT-MY,STORE-C	UNIX RTR R1.5 and R6.4
REPT NONCORR PRTY	REPT-NONCORR,PRTY	UNIX RTR R1.5 only
REPT OFFLINE	REPT-OFFLINE	UNIX RTR R21.3, R21.11, R21.15 thru R21.33
REPT OFFLINE	REPT-OFFLINE	UNIX RTR R21.35 and later
REPT OFLBOOT	REPT-OFLBOOT	UNIX RTR R21.3, R21.11, R21.15 and later
REPT OLBCONFIG FAULT	REPT-OLBCONFIG	UNIX RTR R21.3, R21.11, R21.15 and later
REPT OUT OF RANGE MEM	REPT-OORMR	UNIX RTR R1.5 only
REPT OUT OF RANGE MEM OTHER	REPT-OORMR,OTHR	UNIX RTR R1.5 only
REPT OP PMCR	REPT-OP,PMCR-A	UNIX RTR R1.5 and R6.4
REPT OP PMCR	REPT-OP,PMCR-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT OP PMCR ERROR	REPT-OP,PMER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT OTHER STORE HARDWARE	REPT-OTHR,SHE	UNIX RTR R1.5 and R6.4
REPT OTHER STORE READ	REPT-OTHR,SRDPE	UNIX RTR R1.5 and R6.4
REPT OTHER STORE REFRESH	REPT-OTHR,SRFPE	UNIX RTR R1.5 and R6.4
REPT OTHER STORE TIME OUT	REPT-OTHR,STOE	UNIX RTR R1.5 only
REPT OUTPUT	REPT-OUTPUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PASSWORD	REPT-PASSWORD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PCPAUD	REPT-PCPAUD-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
REPT PCPAUD	REPT-PCPAUD-B	UNIX RTR R21.27 only
REPT PCPAUD	REPT-PCPAUD-C	UNIX RTR R21.29 and later
REPT PCPMD FAULT	REPT-PCPMD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PHASE	REPT-PHASE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PINV	REPT-PINV	UNIX RTR R1.5 only

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Message Name	Message ID	Generic
REPT PLDMON ERROR	REPT-PLDMON,ERR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PMDBCOPY	REPT-PMDBCOPY-A	UNIX RTR R1.5, R6.4, R21.11, R21.15 thru R21.17
REPT PMDBCOPY	REPT-PMDBCOPY-B	UNIX RTR R21.3, R21.19 and later
REPT PMGR ERROR	REPT-PMGR,ERR-A	UNIX RTR R1.5 only
REPT PMGR ERROR	REPT-PMGR,ERR-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT PMSLOT	REPT-PMSLOT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT POWER	REPT-POWER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PREPHASE	REPT-PREPHASE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PRIV INSTR VIOL	REPT-PRIV,INSTRCT	UNIX RTR R1.5 only
REPT PROTECTION VIOLATION	REPT-PROTECT,VLTN	UNIX RTR R1.5 only
REPT PARITY DIVERT	REPT-PRTY-DVRT	UNIX RTR R1.5 only
REPT PSM	REPT-PSM-A	UNIX RTR R1.5 and R6.4
REPT PSM	REPT-PSM-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT PWRFLTC	REPT-PWRFLTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY CU	REPT-RCVRY,CU	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY DUI	REPT-RCVRY,DUI	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY DUIC	REPT-RCVRY,DUIC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY HSD	REPT-RCVRY,HSD	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY HSDC	REPT-RCVRY,HSDC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY IOP	REPT-RCVRY,IOP	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY MT	REPT-RCVRY,MT	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY MTC	REPT-RCVRY,MTC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY MTTY	REPT-RCVRY,MTTY	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT RCVRY MTTYC	REPT-RCVRY,MTTYC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY ROP	REPT-RCVRY,ROP	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SCC	REPT-RCVRY,SCC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SCSDC	REPT-RCVRY,SCSDC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SDL	REPT-RCVRY,SDL	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SDLC	REPT-RCVRY,SDLC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY TTY	REPT-RCVRY,TTY	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY TTYC	REPT-RCVRY,TTYC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT REX UNABLE	REPT-REX	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT REX SUMMARY	REPT-REX,SUM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RMF	REPT-RMF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RMTGETTY	REPT-RMTGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ROP	REPT-ROP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RTS	REPT-RTS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SCC	REPT-SCC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
REPT SCSD	REPT-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SCSDA	REPT-SCSDA-A	UNIX RTR R1.5 and R6.4
REPT SCSDA	REPT-SCSDA-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT SCSDC	REPT-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

SEE PROPRIETARY NOTICE ON COVER PAGE

Message Name	Message ID	Generic
REPT SDL	REPT-SDL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SDLC	REPT-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SDLRTC	REPT-SDLRTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SDLRTN	REPT-SDLRTN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SHLGETTY	REPT-SHLGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SIM	REPT-SIM	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT SIMCHK	REPT-SIMCHK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SIND	REPT-SIND	UNIX RTR R1.5 only
REPT SINV	REPT-SINV	UNIX RTR R1.5 only
REPT SIOF ERROR	REPT-SIOF,ERROR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SOP	REPT-SOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SPL SYNTAX ERROR	REPT-SPL,SYN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SYSTEM	REPT-SYSTEM	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT TIME	REPT-TIME	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT TLP ERROR	REPT-TLP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT 3/6 MAIN CHAN ADDR	REPT-TS,MCASE	UNIX RTR R1.5 only
REPT 3/6 MAIN CHAN IO RESP	REPT-TS,MCIORE	UNIX RTR R1.5 only
REPT TTY	REPT-TTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT TTYC	REPT-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ULARP	REPT-ULARP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT UNIX INIT	REPT-UNIX,INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT VIRTUAL ADDR	REPT-VIRTUAL,ADDR	UNIX RTR R1.5 only

Message Name	Message ID	Generic
RFT FDUMP	RFT-FDUMP	UNIX RTR R1.5 only
RMV CU	RMV-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV DCI	RMV-DCI	UNIX RTR R21.3, R21.15 and later
RMV DFC	RMV-DFC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV DUI	RMV-DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV DUIC	RMV-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV HSD	RMV-HSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV HSDC	RMV-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV IOP	RMV-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV MHD	RMV-MHD-A	UNIX RTR R6.4, R21.3, R21.17 and later
RMV MHD	RMV-MHD-B	UNIX RTR R21.11 and R21.15
RMV MT	RMV-MT-A	UNIX RTR R1.5 and R6.4
RMV MT	RMV-MT-B	UNIX RTR R21.3, R21.11, R21.15 and later
RMV MTC	RMV-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV MTTY	RMV-MTTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV MTTYC	RMV-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV ROP	RMV-ROP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SBUS	RMV-SBUS-A	UNIX RTR R6.4 only
RMV SBUS	RMV-SBUS-B	UNIX RTR R21.3, R1.11, R21.15 and later
RMV SCC	RMV-SCC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SCSDC	RMV-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SDL	RMV-SDL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SDLC	RMV-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
RMV TTY	RMV-TTY	UNIX RTR R1.5, R6.4, R21.3, and later
RMV TTYC	RMV-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST CU	RST-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST DCI	RST-DCI	UNIX RTR R21.3, R21.15 and later
RST DFC	RST-DFC-A	UNIX RTR R1.5 and R6.4
RST DFC	RST-DFC-B	UNIX RTR R21.3, R21.11, R21.15 and later
RST DUI	RST-DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST DUIC	RST-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST HSD	RST-HSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST HSDC	RST-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
RST IOP	RST-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
RST MHD	RST-MHD-A	UNIX RTR R1.5 and R6.4
RST MHD	RST-MHD-B	UNIX RTR R21.3, R21.11, R21.15 and later
RST MT	RST-MT-A	UNIX RTR R1.5 and R6.4
RST MT	RST-MT-B	UNIX RTR R21.3, R21.11, R21.15 and later
RST MTC	RST-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST MTTY	RST-MTTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST MTTYC	RST-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST ROP	RST-ROP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST SBUS	RST-SBUS-A	UNIX RTR R6.4 only
RST SBUS	RST-SBUS-B	UNIX RTR R21.3, R21.11, R21.15, and later
RST SCC	RST-SCC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST SCSDC	RST-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST SDL	RST-SDL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
RST SDLC	RST-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST TTY	RST-TTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST TTYC	RST-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
SET CLK	SET-CLK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
SET IODRV	SET-IODRV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
START OF	START-OF	UNIX RTR R21.11, R21.15 and later
STOP AUD	STOP-AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
STOP BKDISK	STOP-BKDISK-A	UNIX RTR R1.5, R6.4, R21.3 and R21.11
STOP BKDISK	STOP-BKDISK-B	UNIX RTR R21.15 and later
STOP DCI	STOP-DCI	UNIX RTR R21.3, R21.11, R21.15 and later
STOP DMQ	STOP-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP EXC ANY	STOP-EXC,ANY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP EXC USER	STOP-EXC,USER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP GEN	STOP-GEN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP OFLBOOT	STOP-OFLBOOT	UNIX RTR R21.3, R21.11, R21.15 and later
STP DMQ	STP-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STP GEN	STP-GEN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
SW CU	SW-CU-A	UNIX RTR R1.5 only
SW CU	SW-CU-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
SW OFLBOOT	SW-OFLBOOT	UNIX RTR R21.3, R21.11, R21.15 and later
SW PORTSW	SW-PORTSW	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TST SPL	TST-SPL	UNIX RTR R1.5 only
UPD APPLY	UPD-APPLY	UNIX RTR R1.5, R6.4 and R21.3
UPD AUTOCHK REPORT	UPD-AUTOCHK	UNIX RTR R21.11, R21.15 and later
UPD AUTOMATION	UPD-AUTOMATION	UNIX RTR R21.11, R21.15 and later
UPD BKOUT	UPD-BKOUT	UNIX RTR R1.5, R6.4 and R21.3
UPD BLDBOOT	UPD-BLDBOOT	UNIX RTR R1.5, R6.4, R21.3 R21.11, R21.15 and later
UPD CLR	UPD-CLR	UNIX RTR R1.5, R6.4 and R21.3
UPD COMMAND	UPD-COMMAND	UNIX RTR R21.11, R21.15 and later
UPD CSCANS	UPD-CSCANS	UNIX RTR R21.11, R21.15 and later
UPD CSCANS REPORT	UPD-CSCANS-REPT	UNIX RTR R21.11, R21.11, R21.15 and later
UPD DFC FLASH	UPD-DFC,FLASH	UNIX RTR R21.11, R21.15 and later
UPD DISPLAY	UPD-DISPLAY-A	UNIX RTR R1.5, R6.4 and R21.3
UPD DISPLAY	UPD-DISPLAY-B	UNIX RTR R21.11, R21.15 and later
UPD FLASH	UPD-FLASH	UNIX RTR R21.11, R21.15 and later
UPD FTRC	UPD-FTRC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN APPLPROC	UPD-G,APPLPROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN BACKOUT	UPD-G,BKOUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN COMMIT	UPD-G,COMMIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN CONTINUE	UPD-G,CONT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN ENTER	UPD-G,ENTER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN PROCEED	UPD-G,PROCD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
UPD GEN RESTORE	UPD-G,RESTR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
UPD ISG	UPD-ISG-A	UNIX RTR R1.5 and R6.4
UPD ISG	UPD-ISG-B	UNIX RTR R21.3, R21.11, R21.15 and later
UPD OMDB	UPD-OMDB-A	UNIX RTR R1.5, R6.4 and R21.3
UPD OMDB	UPD-OMDB-B	UNIX RTR R21.11, R21.15 and later
UPD OMIT	UPD-OMIT	UNIX RTR R1.5, R6.4 and R21.3
UPD PERM	UPD-PERM	UNIX RTR R1.5, R6.4 and R21.3
UPD PURGE	UPD-PURGE	UNIX RTR R1.5, R6.4 and R21.3
UPD RECLAIM	UPD-RECLAIM	UNIX RTR R1.5, R6.4 and R21.3
UPD REPT	UPD-REPT-A	UNIX RTR R1.5, R6.4 and R21.3
UPD REPT	UPD-REPT-B	UNIX RTR R21.11, R21.15 and later
UPD RESET	UPD-RESET	UNIX RTR R1.5, R6.4 and R21.3
UPD UPNM	UPD-UPNM	UNIX RTR R1.5, R6.4 and R21.3
UPD VERSION	UPD-VERSION	UNIX RTR R21.11, R21.15 and later
UPD VFY	UPD-VFY	UNIX RTR R1.5, R6.4 and R21.3
UPD VFYCON	UPD-VFYCON	UNIX RTR R21.11, R21.15 and later
VFY FILE	VFY-FILE-A	UNIX RTR R1.5 only
VFY FILE	VFY-FILE-B	UNIX RTR R6.4 only
VFY FILE	VFY-FILE-C	UNIX RTR R21.3, R21.11, R21.15 and later
VFY MHD	VFY-MHD-A	UNIX RTR R1.5 only
VFY MHD	VFY-MHD-B	UNIX RTR R6.4 only
VFY MHD	VFY-MHD-C	UNIX RTR R21.3, R21.11, R21.15 and later
VFY PAUTH	VFY-PAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
VFY PCGRP	VFY-PCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
VFY PROFL	VFY-PROFL	UNIX RTR R21.3, R21.11, R21.15 and later
VFY TAPE	VFY-TAPE-A	UNIX RTR R1.5, R6.4, R21.3 and R21.11
VFY TAPE	VFY-TAPE-B	UNIX RTR R21.15 and later

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Message Name	Message ID	Generic
VFY TAUTH	VFY-TAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
VFY TCGRP	VFY-TCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
WHEN COND	WHEN-COND	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
WHEN PID	WHEN-PID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
WHEN UID	WHEN-UID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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ID . . . . . REPT-DCI-A
GENERIC . . . . . UNIX RTR R21.3, R21.15 thru R21.30
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has twelve formats.

[1] `REPT DCIDRV INFO CODE` *a b c*

[2] `REPT DCIDRV ERROR CODE` *a b c*

[3] `REPT` *d e* `ERROR CODE` *a b c*

[4] `REPT` *d e* `ERROR COMPLETION CODE` *f*

[5] `REPT` *d e* `ERROR -` *g* `STATUS` *h*

[6] `REPT` *d e* `FAULT CODE` *i j*

[7] `REPT` *d e* `UNIDENTIFIED RESPONSE WD1=`*k*

[8] `REPT` *d e* `ERROR STATUS` *l* `MASK` *m* `EXP` *n*

[9] `REPT` *d e* `INFO CODE` *a b c*

[10] `REPT` *d e* `AUTONOMOUS RESPONSE` *o*

[11] `REPT` *d e* `CHANNEL` *p q* `CODE` *a b c*

[12] `REPT DCIDRV RECEIVED UNKNOWN RCV MESSAGE` *r e s*

2. REASON FOR OUTPUT

To specify the error condition detected by the Dual Serial Channel Interconnect (DCI) driver.

3. VARIABLE FIELD DEFINITIONS

a = An error code or information code number. For the meaning of error or information code, see appendix DCI-APPA.

b = Supplemental data for previous REPT-DCIDRV message.

c = Supplemental data for previous REPT-DCIDRV message.

d = DCI unit name

e = DCI unit number

f = One word completion report. It contains information like command completion code, job ID (DMA job number), size of data.

g = Can be either CHAN, DBS or BIC Register. For more information, see *h*.

h = Supplemental data for the previous message.

if the value of *g* is CHAN, see output DCI appendix C, DCI-APPC.

if the value of *g* is DBS, see output DCI appendix D, DCI-APPD.

if the value of *g* is BIC REGISTER, see output DCI appendix E, DCI-APPE.

i = Fault code, in hexadecimal notation. See output DCI appendix H, DFC-APPH.

j = In case of software faults in *i*, it contains the program address where fault occurred.

k = One word completion report. It contains information like command completion code, job ID (DMA job number), size of data.

l = BIC status in hexadecimal notation. See output appendix E, DCI-APPE.

m = Mask.

n = Expected value of *l after being masked with m*.

o = Autonomous response special completion code. See output appendix, DCI-APPB.

p = Channel number on which error occurred.

q = Can be either INFO on the channel or an ERROR on channel.

r = The unit_name of the device which received unknown message.

s = The number of message in hexadecimal notation.

4. ACTION TO BE TAKEN

An error report indicates an error condition which could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages which provide useful data may be output.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 724.
Format 2 has an OMDB key of 726.
Format 3 has an OMDB key of 727.
Format 4 has an OMDB key of 728.
Format 5 has an OMDB key of 730.
Format 6 has an OMDB key of 731.
Format 7 has an OMDB key of 732.
Format 8 has an OMDB key of 733.
Format 9 has an OMDB key of 725.
Format 10 has an OMDB key of 734.
Format 10 has an OMDB key of 740.
Format 12 has an OMDB key of 737.

Output Appendixes

DCI-APPA
DCI-APPB
DCI-APPC
DCI-APPD
DCI-APPE
DCI-APPF
DCI-APPI

Input Messages

DGN:DCI
RMV:DCI
RST:DCI

Output Messages

DGN-DCI
RMV-DCI
RST-DCI

ID . . . . . REPT-DCI-B
GENERIC . . . . . UNIX RTR R21.31 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has thirteen formats.

[1] `REPT DCIDRV INFO CODE` *a b c*

[2] `REPT DCIDRV ERROR CODE` *a b c*

[3] `REPT` *d e* `ERROR CODE` *a b c*

[4] `REPT` *d e* `ERROR COMPLETION CODE` *f*

[5] `REPT` *d e* `ERROR -` *g* `STATUS` *h*

[6] `REPT` *d e* `FAULT CODE` *i j*

[7] `REPT` *d e* `UNIDENTIFIED RESPONSE WD1=`*k*

[8] `REPT` *d e* `ERROR STATUS` *l* `MASK` *m* `EXP` *n*

[9] `REPT` *d e* `INFO CODE` *a b c*

[10] `REPT` *d e* `AUTONOMOUS RESPONSE` *o*

[11] `REPT` *d e* `CHANNEL` *p q* `CODE` *a b c*

[12] `REPT DCIDRV RECEIVED UNKNOWN RCV MESSAGE` *r e s*

[13] `REPT DCI` *e* `JOB RESP TIMES` *t-u* `MAX` *v* `SEGMENT` *w* `OF` *x*
`RR: AAAAA BBBBB CCCCC DDDDD EEEEE FFFFF GGGGG HHHHH`
`SS: IIIII JJJJJ KKKKK LLLLL MMMMM NNNNN OOOOO PPPPP`

2. REASON FOR OUTPUT

To specify the error condition detected by the Dual Serial Channel Interconnect (DCI) driver.

3. VARIABLE FIELD DEFINITIONS

a = An error code or information code number. For the meaning of error or information code, see appendix DCI-APPA.

b = Supplemental data for previous REPT-DCIDRV message.

c = Supplemental data for previous REPT-DCIDRV message.

d = DCI unit name

e = DCI unit number

f = One word completion report. It contains information like command completion code, job ID (DMA job number), size of data.

g = Can be either CHAN, DBS or BIC Register. For more information, see *h*.

h = Supplemental data for the previous message.

if the value of *g* is CHAN, see output DCI appendix C, DCI-APPC.

if the value of *g* is DBS, see output DCI appendix D, DCI-APPD.

if the value of *g* is BIC REGISTER, see output DCI appendix E, DCI-APPE.

i = Fault code, in hexadecimal notation. See output DCI appendix H, DFC-APPH.

j = In case of software faults in *i*, it contains the program address where fault occurred.

k = One word completion report. It contains information like command completion code, job ID (DMA job number), size of data.

l = BIC status in hexadecimal notation. See output appendix E, DCI-APPE.

m = Mask.

n = Expected value of *l after being masked with m*.

o = Autonomous response special completion code. See output appendix, DCI-APPB.

p = Channel number on which error occurred.

q = Can be either INFO on the channel or an ERROR on channel.

r = The unit_name of the device which received unknown message.

s = The number of message in hexadecimal notation.

t = The beginning of the time range indicator.

u = The end of the time range indicator.

v = The maximum job response time to be printed.

w = The segment number of this report (1, 2 or 3.)

x = The largest segment number of this report (1, 2, or 3.)

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R = Starting time value.

S = Ending time value+8

A = The number of job timeouts received in the one second time period RR to RR+1 seconds.

B = The number of job timeouts received in the one second time period RR+1 to RR+2 seconds.

C = The number of job timeouts received in the one second time period RR+2 to RR+3 seconds.

D = The number of job timeouts received in the one second time period RR+3 to RR+4 seconds.

E = The number of job timeouts received in the one second time period RR+4 to RR+5 seconds.

F = The number of job timeouts received in the one second time period RR+5 to RR+6 seconds.

G = The number of job timeouts received in the one second time period RR+6 to RR+7 seconds.

H = The number of job timeouts received in the one second time period RR+7 to RR+8 seconds.

I = The number of job timeouts received in the one second time period RR+8 to RR+9 seconds.

J = The number of job timeouts received in the one second time period RR+9 to RR+10 seconds.

K = The number of job timeouts received in the one second time period RR+10 to RR+11 seconds.

L = The number of job timeouts received in the one second time period RR+11 to RR+12 seconds.

M = The number of job timeouts received in the one second time period RR+12 to RR+13 seconds.

N = The number of job timeouts received in the one second time period RR+13 to RR+14 seconds.

O = The number of job timeouts received in the one second time period RR+14 to RR+15 seconds.

P = The number of job timeouts received in the one second time period RR+15 to RR+16 seconds.

The format 13 report consists of up to three segments of data giving a frequency table of job response times in intervals of one second. Each output segment consists of three lines. The first line gives the time range of the job response times for that segment in fields *t* through *u*, the maximum job response time recorded (*v*), the current segment number (*w*) and the last segment to be printed (*x*). The next two lines give the frequency distribution. The beginning of the line (RR or SS) is the time value in seconds corresponding to the first

entry in the line. The next eight numbers (AAAAA-HHHHH or IIIII-PPPPP) are the frequency of job responses occuring in consecutive time intervals one second apart.

An sample output is shown below in Examples 1 and 2. In Example 1, line 1 indicates that DCI 1 had some job responses between 0 and 16 (15+1) seconds, with a maximum reported response time between 21 and 22 seconds and that this is the first of two segments that will be reported. Line 2 shows the job responses received between 0-8 seconds; it indicates that there were 16 job responses received between 0 and 1 second and one response received between 4 and 5 seconds. Line 3 shows the job responses received between 8-16 seconds; it indicates that there was one job response received between 13 and 14 seconds.

In Example 2, line 1 indicates that DCI 1 had some job responses between 16 and 32 (31+1) seconds, with a maximum reported response time between 21 and 22 seconds and that this is the second of two segments that will be reported. Line 2 shows the job responses received between 16-24 seconds; it indicates that there was one job response received between 21 and 22 seconds. Line 3 shows the job responses received between 24-32 seconds; there were no job responses received in this period.

Example 1
=========

```
   REPT DCI 1 JOB RESP TIMES  0-15 MAX 21 SEGMENT 1 OF 2
 0:   16    0    0    0    1    0    0    0
 8:    0    0    0    0    0    1    0    0
```

Example 2
=========

```
   REPT DCI 1 JOB RESP TIMES 16-31 MAX 21 SEGMENT 2 OF 2
16:    0    0    0    0    0    1    0    0
24:    0    0    0    0    0    0    0    0
```

4. ACTION TO BE TAKEN

An error report indicates an error condition which could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages which provide useful data may be output.

Format 13 is produced when the DCI/VDCI unit *e* has exceeded the threshold for heartbeat timeouts and will be removed from service, or if the DCI driver receives a signal E_USR6. When it receives the E_USR6 signal, it also clears the accumulated job response times after printing the table. The format 13 report provides data about the the distribution of DCI/VDCI job response times which is used for determining the network performance and delay characteristics and diagnose network problems. These data can be used to guide the setting of appropriate heartbeat timeout ECD parameters to prevent DCI/VDCI timeouts in consultation with Customer Technical Support.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 724.
Format 2 has an OMDB key of 726.
Format 3 has an OMDB key of 727.
Format 4 has an OMDB key of 728.
Format 5 has an OMDB key of 730.
Format 6 has an OMDB key of 731.
Format 7 has an OMDB key of 732.
Format 8 has an OMDB key of 733.
Format 9 has an OMDB key of 725.
Format 10 has an OMDB key of 734.
Format 10 has an OMDB key of 740.
Format 12 has an OMDB key of 737.

Output Appendixes
DCI-APPA
DCI-APPB
DCI-APPC
DCI-APPD
DCI-APPE
DCI-APPF
DCI-APPI

Input Messages
DGN:DCI
RMV:DCI
RST:DCI

Output Messages
DGN-DCI
RMV-DCI
RST-DCI

ID . . . . . REPT-DCIDIP
GENERIC . . . . . UNIX RTR R21.17 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

REPT DCIDIP ERROR a [b]

2. REASON FOR OUTPUT

To report an error condition encountered by the DCIDIP process.

3. VARIABLE FIELD DEFINITIONS

a = Process step or reason.

`f00` — sendw() failed to send message to DAP
`f06` — received invalid message type
`f0c` — failed to open the ECD
`f12` — failed to attach the ECD
`f18` — failed to get MDCT record for physical TTY
`f1e` — MDCT rid for physical TTY not known
`f24` — failed to get UCB record
`f2a` — UCB rid for physical TTY not known
`f30` — no RID in message from DCI driver
`f36` — failed to get UCB record
`f3c` — unit not supported by DCIDIP
`f42` — out of range DCI unit number
`f48` — failed to get DCIOPT record
`f4e` — invalid UCB RID for DCI
`f4f` — failed to get Adjunct UCB record
`f54` — invalid UCB RID for physical TTY
`f6a` — no data in poke message
`f70` — too many arguments in poke message
`f76` — poke number is not supported
`f7c` — option not supported by remove TTY
`f82` — invalid option for restore TTY
`f88` — failed to execute craft shell

b = System error code number. See System Error Codes Appendix.

4. ACTION TO BE TAKEN

This message indicates that the DCIDIP process encountered an error condition either during initialization or when processing a clients request. If the error condition persists, contact the next level of technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

This alarm is an automatically-generated report for information only.

6. REFERENCES

OMDB Keys:
Format 1 has an OMDB key of 765.

IM / OM References:

Input Messages:
RST-TTY
RMV-TTY

Output Messages:
None.

ID . . . . . REPT-DEGROWTH
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . VAR, DSKSYS

1. FORMAT

`REPT DEGROWTH` *a b c* [*d*]

2. REASON FOR OUTPUT

To indicate that a unit has been dynamically degrown by a user.

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

c = `COMPLETED`.

= `FAILED`.

= `IN PROGRESS`.

If *c* = `FAILED`:

d = The reason for failure. For an input/output processor (IOP) unit, refer to output IOP Appendix J, `IOP-APPJ` for an explanation of the error code. For a disk file controller (DFC) unit, refer to output DFC Appendix A, `DFC-APPA` for an explanation of the error code.

4. ACTION TO BE TAKEN

No action is needed if *c* indicates `COMPLETED` or `IN PROGRESS`. If *c* is `FAILED` then check the error code to determine action.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 197.

Output Appendixes
`DFC-APPA`
`IOP-APPJ`

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ID . . . . . REPT-DFC-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKSYS

1. FORMAT

This message has ten formats.

[1] `REPT DFC` *a* `ERROR COMPL CODE` *b* `MHD STATUS` *c*

[2] `REPT DFC` *a* `ERROR MHD STATUS` *c*

[3] `REPT DFC` *a* `ERROR CHAN STATUS` *d*

[4] `REPT DFC` *a* `ERROR DBS STATUS` *e*

[5] `REPT DFC` *a* `ERROR BIC STATUS` *f*

[6] `REPT DFC` *a* `ERROR STATUS` *g* `MASK` *h* `EXP` *i*

[7] `REPT DFC` *a* `ERROR DATA` *j*

[8] `REPT DFC` *a* `FAULT CODE` *k*

[9] `REPT DFC` *a* `UNIDENTIFIED RESPONSE WD1=` *l* `WD2=` *m*

[10] `REPT DFC` *a* `AUTONOMOUS RESPONSE` *n*

2. REASON FOR OUTPUT

To specify the error condition detected by the disk file controller (DFC).

3. VARIABLE FIELD DEFINITIONS

a = Unit number.

b = Command completion status word in hexadecimal notation. The completion word is eight hexadecimal digits of the form *rrsstuvv*.

rr = Command completion code. See Tables 1 and 2 in output DFC Appendix B, `DFC-APPB`.

ss = Number of disk blocks read or written.

t = Device ID number.

u = Special completion code; valid only when *vv* is 00. See Table 3 in output DFC Appendix B, `DFC-APPB`.

vv = DMA job number (job ID).

c = MHD status, in hexadecimal notation. See output DFC Appendix C, `DFC-APPC`.

d = Channel status, in hexadecimal notation. See output DFC Appendix D, `DFC-APPD`.

e = Bus selector status, in hexadecimal notation. See output DFC Appendix E, `DFC-APPE`.

f = BIC status, in hexadecimal notation. See output DFC Appendix F, `DFC-APPF`.

g = BIC status, in hexadecimal notation. See output DFC Appendix F, `DFC-APPF`.

h = Mask.

i = Expected value of *g* after being masked with *h*.

j = Supplemental data for previous `REPT-DKDRV` message.

k = Fault code, in hexadecimal notation. See output DFC Appendix I, `DFC-APPI`.

l = First word of an unidentifiable completion report. This would normally be the command completion word.

m = Second word of an unidentifiable completion report. This would normally be the MHD status word.

n = Autonomous response special completion code (eight hexadecimal digits). The explanation of the hexadecimal digits is the same as the command completion code described above for variable *b*. The *u* hexadecimal digit provides the reason for the autonomous response. See Table 3 in output DFC Appendix B, `DFC-APPB`.

4. ACTION TO BE TAKEN

An error report indicates an error condition which could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages which provide useful data may be output.

5. ALARMS

None. This automatically-generated report is for information only.

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6. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 232 and 244.
Formats 2,3,4, and 5 have an OMDB key of 233.
Format 6 has an OMDB key of 236.
Format 7 has an OMDB key of 231.
Format 8 has an OMDB key of 234.
Format 9 has an OMDB key of 235.
Format 10 has OMDB keys of 237, 238, and 239.

Output Appendixes

DFC-APPB
DFC-APPC
DFC-APPD
DFC-APPE
DFC-APPF
DFC-APPI

Input Messages

DGN:DFC
DGN:MHD
RMV:DFC
RMV:MHD
RMV:SBUS
RST:DFC
RST:MHD
RST:SBUS

Output Messages

DGN-DFC
DGN-MHD
REPT-DKDRV
RMV-DFC
RMV-MHD
RST-DFC
RST-MHD

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ID . . . . . REPT-DFC-B
GENERIC . . . . . UNIX RTR R6.4 only.
TYPE . . . . . Output
MESSAGE CLASS . . DSKSYS

1. FORMAT

This message has 13 formats.

[1] `REPT DFC` *a* `ERROR COMPLETED CODE` *b* `MHD STATUS` *c*

[2] `REPT DFC` *a* `ERROR MHD STATUS` *c*

[3] `REPT DFC` *a* `ERROR CHAN STATUS` *d*

[4] `REPT DFC` *a* `ERROR DBS STATUS` *e*

[5] `REPT DFC` *a* `ERROR BIC REGISTER STATUS` *f*

[6] `REPT DFC` *a* `ERROR STATUS` *g* `MASK` *h* `EXP` *i*

[7] `REPT DFC` *a* `ERROR DATA` *j*

[8] `REPT DFC` *a* `FAULT CODE` *k*

[9] `REPT DFC` *a* `UNIDENTIFIED RESPONSE WD1=` *l* `WD2=` *m*

[10] `REPT DFC` *a* `AUTONOMOUS RESPONSE` *n*

[11] `REPT DFC` *a* `INFO HA SHADOW REGISTER STATUS` *o*

[12] `REPT DFC` *a* `INFO CODE` *p*

[13] `REPT DFC` *a* `DMA ADDRESS ERROR`
`JOBID` *q* `INUSE` *w* `MSGV` *x* `PID` *y* `UID` *z*
`IO_PA` *aa* `IO_BO` *bb* `IO_BC` *cc*
`JOB_BCNT` *dd* `JOB_PA` *ee*

2. REASON FOR OUTPUT

To specify the error condition detected by the disk file controller (DFC).

3. VARIABLE FIELD DEFINITIONS

a = Unit number.

b = Command completion status word in hexadecimal notation. The completion word is eight hexadecimal digits of the form *rrsstuvv*.

- *rr* = Command completion code. See Tables 1 and 2 in output DFC Appendix B, DFC-APPB.
- *ss* = Number of disk blocks read or written.
- *t* = Device ID number.
- *u* = Special completion code; valid only when *vv* is 00. See Table 3 in output DFC Appendix B, DFC-APPB.
- *vv* = DMA job number (job ID).

c = MHD status, in hexadecimal notation. See output DFC Appendix C, DFC-APPC.

d = Channel status, in hexadecimal notation. See output DFC Appendix D, DFC-APPD.

e = Bus selector status, in hexadecimal notation. See output DFC Appendix E, DFC-APPE.

f = BIC status, in hexadecimal notation. See output DFC Appendix F, DFC-APPF.

g = BIC status, in hexadecimal notation. See output DFC Appendix F, DFC-APPF.

h = Mask.

i = Expected value of *g* after being masked with *h*.

j = Supplemental data for previous REPT-DKDRV message.

k = Fault code, in hexadecimal notation. See output DFC Appendix I, DFC-APPI.

l = First word of an unidentifiable completion report. This would normally be the command completion word.

m = Second word of an unidentifiable completion report. This would normally be the MHD status word.

n = Autonomous response special completion code (eight hexadecimal digits). The explanation of the hexadecimal digits is the same as the command completion code described above for variable *b*. The *u* hexadecimal digit provides the reason for the autonomous response. See Table 3 in output DFC Appendix B, DFC-APPB.

o = The SCSI host adapter (HA) shadow register status, in hexadecimal notation. See output DFC Appendix P, DFC-APPP.

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p = Information code. See output DFC Appendix A, DFC-APPA.

q = DMA job ID number.

w = Job ID in use indicator. Y indicates valid job ID.

x = Message buffer indicator. Y indicates a message buffer was found and fields *y* through *cc* are from the message buffer. N indicates a message buffer was not found and fields *y* through *cc* are not valid.

y = Process ID of the process requesting I/O.

z = Utility ID of the process requesting I/O.

aa = Page table address of I/O memory segment provided by the client.

bb = Offset into the memory segment.

cc = Number of bytes requested by the client for I/O transfer.

dd = Page table address of I/O memory segment used by the driver.

ee = Number of bytes used by the driver for I/O transfer.

4. ACTION TO BE TAKEN

An error report indicates an error condition which could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages which provide useful data may be output.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 232 and 244.
Formats 2 through 5 have an OMDB key of 233.
Format 6 has an OMDB key of 236.
Format 7 has an OMDB key of 231.
Format 8 has an OMDB key of 234.
Format 9 has an OMDB key of 235.
Format 10 has OMDB keys of 237, 238 and 239.
Format 11 has an OMDB key of 200.
Format 12 has an OMDB key of 199.

Output Appendixes
DFC-APPA
DFC-APPB
DFC-APPC
DFC-APPD
DFC-APPE
DFC-APPF
DFC-APPI
DFC-APPP

Input Messages

```
DGN:DFC
DGN:MHD
RMV:DFC
RMV:MHD
RMV:SBUS
RST:DFC
RST:MHD
RST:SBUS
```

Output Messages

```
DGN-DFC
DGN-MHD
REPT:DKDRV
RMV-DFC
RMV-MHD
RST-DFC
RST-MHD
```

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ID . . . . . REPT-DFC-C
GENERIC . . . . . UNIX RTR R21.3 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKSYS

1. FORMAT

This message has 13 formats.

[1] `REPT DFC` *a* `ERROR COMPLETION CODE` *b* `DEVICE STATUS` *c*

[2] `REPT DFC` *a* `ERROR DEVICE STATUS` *c*

[3] `REPT DFC` *a* `ERROR CHAN STATUS` *d*

[4] `REPT DFC` *a* `ERROR DBS STATUS` *e*

[5] `REPT DFC` *a* `ERROR BIC REGISTER STATUS` *f*

[6] `REPT DFC` *a* `ERROR STATUS` *g* `MASK` *h* `EXP` *i*

[7] `REPT DFC` *a* `ERROR DATA` *j*

[8] `REPT DFC` *a* `FAULT CODE` *k*

[9] `REPT DFC` *a* `UNIDENTIFIED RESPONSE WD1=` *l* `WD2=` *m*

[10] `REPT DFC` *a* `AUTONOMOUS RESPONSE` *n*

[11] `REPT DFC` *a* `INFO HA SHADOW REGISTER STATUS` *o*

[12] `REPT DFC` *a* `INFO CODE` *p*

[13] `REPT DFC` *a* `DMA ADDRESS ERROR`
`JOBID` *q* `INUSE` *r* `MSGV` *s* `PID` *t* `UID` *u*
`IO_PA` *v* `IO_BO` *w* `IO_BC` *x*
`JOB_BCNT` *y* `JOB_PA` *z*

2. REASON FOR OUTPUT

To specify the error condition detected by the disk file controller (DFC).

3. VARIABLE FIELD DEFINITIONS

a = Unit number.

b = Command completion status word in hexadecimal notation. The completion word is eight hexadecimal digits of the form: `rrsstuvv`.

`rr` = Command completion code. See Tables 1 and 2 in DFC Appendix B, `DFC-APPB`.

`ss` = Number of blocks read or written.

`t` = Device identification (ID) number.

`u` = Special completion code; valid only when `vv` is 00. See Table 3 in DFC Appendix B, `DFC-APPB`.

`vv` = DMA job number (job id).

c = Device status, in hexadecimal notation. See DFC Appendix C, `DFC-APPC`.

d = Channel status, in hexadecimal notation. See DFC Appendix D, `DFC-APPD`.

e = Bus selector status, in hexadecimal notation. See DFC Appendix E, `DFC-APPE`.

f = BIC status, in hexadecimal notation. See DFC Appendix F, `DFC-APPF`.

g = BIC status, in hexadecimal notation. See DFC Appendix F, `DFC-APPF`.

h = Mask.

i = Expected value of *g* after being masked with *h*.

j = Supplemental data for previous `REPT-DKDRV` output message.

k = Fault code, in hexadecimal notation. See DFC Appendix I, `DFC-APPI`.

l = First word of an unidentifiable completion report. This would normally be the command completion word.

m = Second word of an unidentifiable completion report. This would normally be the device status word.

n = Autonomous response special completion code (eight hexadecimal digits). The explanation of the hexadecimal digits is the same as the command completion code described above for variable *b*. The *u* hexadecimal digit provides the reason for the autonomous response. See Table 3 in DFC Appendix B, `DFC-APPB`.

o = The small computer system interface (SCSI) host adapter (HA) shadow register status, in hexadecimal notation. See DFC Appendix P, `DFC-APPP`.

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p = Information code. See DFC Appendix A, DFC-APPA.

q = DMA job ID number.

r = Job ID in use indicator. Y indicates valid job ID.

s = Message buffer indicator. Y indicates a message buffer was found and fields t through z are from the message buffer. N indicates a message buffer was not found and fields t through z are not valid.

t = Process ID of the process requesting I/O.

u = Utility ID of the process requesting I/O.

v = Page table address of I/O memory segment provided by the client.

w = Offset into the memory segment.

x = Number of bytes requested by the client for I/O transfer.

y = Page table address of I/O memory segment used by the driver.

z = Number of bytes used by the driver for I/O transfer.

4. ACTION TO BE TAKEN

An error report indicates an error condition which could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages which provide useful data may be output.

5. ALARMS

There is no alarm for an automatically-generated report that is for information only.

If a minor alarm occurs, take action as indicated in the report.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 232 and 244.
Formats 2 through 5 have an OMDB key of 233.
Format 6 has an OMDB key of 236.
Format 7 has an OMDB key of 231.
Format 8 has an OMDB key of 234.
Format 9 has an OMDB key of 235.
Format 10 has OMDB keys of 237, 238 and 239.
Format 11 has an OMDB key of 200.
Format 12 has an OMDB key of 199.
Format 13 does not have an OMDB key.

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Output Appendixes

DFC-APPA
DFC-APPB
DFC-APPC
DFC-APPD
DFC-APPE
DFC-APPF
DFC-APPI
DFC-APPP

Input Messages

DGN:DFC
DGN:MHD
DGN:MT
RMV:DFC
RMV:MHD
RMV:MT
RMV:SBUS
RST:DFC
RST:MHD
RST:MT
RST:SBUS

Output Messages

DGN-DFC
DGN-MHD
DGN-MT
RMV-DFC
RMV-MHD
RMV-MT
RST-DFC
RST-MHD
RST-MT

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ID . . . . . REPT-DFC-D
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKSYS

1. FORMAT

This message has 13 formats.

[1] `REPT DFC` *a* `ERROR COMPLETION CODE` *b* `DEVICE STATUS` *c*

[2] `REPT DFC` *a* `ERROR DEVICE STATUS` *c*

[3] `REPT DFC` *a* `ERROR CHAN STATUS` *d*

[4] `REPT DFC` *a* `ERROR DBS STATUS` *e*

[5] `REPT DFC` *a* `ERROR BIC REGISTER STATUS` *f*

[6] `REPT DFC` *a* `ERROR STATUS` *g* `MASK` *h* `EXP` *i*

[7] `REPT DFC` *a* `ERROR DATA` *j*

[8] `REPT DFC` *a* `FAULT CODE` *k*

[9] `REPT DFC` *a* `UNIDENTIFIED RESPONSE WD1=` *l* `WD2=` *m*

[10] `REPT DFC` *a* `AUTONOMOUS RESPONSE` *n*

[11] `REPT DFC` *a* `INFO HA SHADOW REGISTER STATUS` *o*

[12] `REPT DFC` *a* `INFO CODE` *p*

[13] `REPT DFC` *a* `DMA ADDRESS ERROR`
`JOBID` *q* `INUSE` *r* `MSGV` *s* `PID` *t* `UID` *u*
`IO_PA` *v* `IO_BO` *w* `IO_BC` *x*
`JOB_BCNT` *y* `JOB_PA` *z* `SEG_SZ` *aa*

2. REASON FOR OUTPUT

To specify the error condition detected by the disk file controller (DFC).

3. VARIABLE FIELD DEFINITIONS

a = Unit number.

b = Command completion status word in hexadecimal notation. The completion word is eight hexadecimal digits of the form: `rrsstuvv`.

`rr` = Command completion code. See Tables 1 and 2 in DFC Appendix B, `DFC-APPB`.

`ss` = Number of blocks read or written.

`t` = Device identification (ID) number.

`u` = Special completion code; valid only when `vv` is 00. See Table 3 in DFC Appendix B, `DFC-APPB`.

`vv` = DMA job number (job id).

c = Device status, in hexadecimal notation. See DFC Appendix C, `DFC-APPC`.

d = Channel status, in hexadecimal notation. See DFC Appendix D, `DFC-APPD`.

e = Bus selector status, in hexadecimal notation. See DFC Appendix E, `DFC-APPE`.

f = BIC status, in hexadecimal notation. See DFC Appendix F, `DFC-APPF`.

g = BIC status, in hexadecimal notation. See DFC Appendix F, `DFC-APPF`.

h = Mask.

i = Expected value of *g* after being masked with *h*.

j = Supplemental data for previous `REPT-DKDRV` output message.

k = Fault code, in hexadecimal notation. See DFC Appendix I, `DFC-APPI`.

l = First word of an unidentifiable completion report. This would normally be the command completion word.

m = Second word of an unidentifiable completion report. This would normally be the device status word.

n = Autonomous response special completion code (eight hexadecimal digits). The explanation of the hexadecimal digits is the same as the command completion code described above for variable *b*. The *u* hexadecimal digit provides the reason for the autonomous response. See Table 3 in DFC Appendix B, `DFC-APPB`.

o = The small computer system interface (SCSI) host adapter (HA) shadow register status, in hexadecimal notation. See DFC Appendix P, `DFC-APPP`.

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p = Information code. See DFC Appendix A, DFC-APPA.

q = DMA job ID number.

r = Job ID in use indicator. Y indicates valid job ID.

s = Message buffer indicator. Y indicates a message buffer was found and fields t through z are from the message buffer. N indicates a message buffer was not found and fields t through z are not valid.

t = Process ID of the process requesting I/O.

u = Utility ID of the process requesting I/O.

v = Page table address of I/O memory segment provided by the client.

w = Offset into the memory segment.

x = Number of bytes requested by the client for I/O transfer.

y = Page table address of I/O memory segment used by the driver.

z = Number of bytes used by the driver for I/O transfer.

aa = Client's I/O memory segment size.

4. ACTION TO BE TAKEN

An error report indicates an error condition which could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages which provide useful data may be output.

5. ALARMS

There is no alarm for an automatically-generated report that is for information only.

If a minor alarm occurs, take action as indicated in the report.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 232 and 244.
Formats 2 through 5 have an OMDB key of 233.
Format 6 has an OMDB key of 236.
Format 7 has an OMDB key of 231.
Format 8 has an OMDB key of 234.
Format 9 has an OMDB key of 235.
Format 10 has OMDB keys of 237, 238 and 239.
Format 11 has an OMDB key of 200.
Format 12 has an OMDB key of 199.
Format 13 does not have an OMDB key.

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Output Appendixes
- DFC-APPA
- DFC-APPB
- DFC-APPC
- DFC-APPD
- DFC-APPE
- DFC-APPF
- DFC-APPI
- DFC-APPP

Input Messages
- DGN:DFC
- DGN:MHD
- DGN:MT
- RMV:DFC
- RMV:MHD
- RMV:MT
- RMV:SBUS
- RST:DFC
- RST:MHD
- RST:MT
- RST:SBUS

Output Messages
- DGN-DFC
- DGN-MHD
- DGN-MT
- RMV-DFC
- RMV-MHD
- RMV-MT
- RST-DFC
- RST-MHD
- RST-MT

Practice 254-301-215 *Disk File Controller Description and Theory of Operation 3B20D Model 1 Computer*

Practice 254-301-216 *SCSI Disk File Controller Description and Theory of Operation*

ID . . . . . REPT-DFC,PUMP
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKSYS

1. FORMAT

This message has seven formats.

[1] `REPT DFC` *a* `AUTO PUMP NOT STARTED`

[2] `REPT DFC` *a* `AUTO PUMP STARTED`

[3] `REPT DFC` *a* `AUTO PUMP IN PROGRESS`

[4] `REPT DFC` *a* `AUTO PUMP ABORTED`

[5] `REPT DFC` *a* `AUTO PUMP COMPLETED`

[6] `REPT DFC` *a* `AUTO PUMP INHIBITED`

[7] `REPT DFC` *a* `PUMPCODE REMOVED`

2. REASON FOR OUTPUT

To report the result of disk driver (DKDRV) automatically downloading the pumpcode to the disk file controller (DFC) or the removal of the pumpcode from the small computer system interface host adapter (SCSI HA).

3. VARIABLE FIELD DEFINITIONS

a = Member number of the DFC.

4. ACTION TO BE TAKEN

If a termination report specifies that the pump could not be completed, see DKDRV's error messages to determine the reason for the failure. If the problem is caused by the resource limitation, the limitation should be cleared so that the pump can be successfully completed. A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

Format 6 indicates that the DKDRV will not try to initiate any more pumpcode downloading on this DFC. The DFC pump must be manually requested.

Format 7 indicates that the pumpcode has been removed from the SCSI HA and the SCSI DFC is running with the operational firmware. This occurs, because the SCSI DFC has operational problem(s) with the running pumpcode. The pumpcode residing on disk should be verified and redownloaded manually.

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5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 577.

Input Message
```
LOAD:DFC;PUMP
```

Output Message
```
LOAD-DFC,PUMP
```

ID . . . . . REPT-DFCE
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT DFCE` *a*
`AAAABBBB CCCCDDDD EEEEEEEE GGGGHHHH IIIIJJJJ KKKKLLLL MMMMNNNN`

[2] `REPT DFCE` *a* `DATA` *b-c* `X'` *d*

2. REASON FOR OUTPUT

To print the enhanced information report (EIR) provided by the disk file controller (DFC).

Format 1 prints when the short form of the EIR is requested.

Format 2 prints when the long form of the EIR is requested.

3. VARIABLE FIELD DEFINITIONS

a = Unit number.

b = Segment number of error report.

c = Number of segments of information report.

d = Sequence number for this report.

NOTE: For values of *b*, `X` means unused, or not applicable.

Format 1 (EIR short form):

A — Data flags.

Bit field definitions for dflags word are as follows.

`X'8000` — defect table in memory flag (1-in, 0-out)
`X'4000` — REX allowed flag (1-alw, 0-inh)
`X'2000` — drive in-service indicator (1-out, 0-in)
`X'1000` — optimization bit (1-on)
`X'0800` — uncorrectable data error
`X'0400` — defect management update write job

B — Drive table status word 0.

Bit field definitions for `dtstat` word 0 are as follows.

X'8000 — disk access required flag
X'4000 — seek only command flag
X'2000 — non-disk access command present flag
X'1000 — defect table setup only - no disk access
X'0800 — seek required flag
X'0400 — call to dtsetp required
X'0200 — seek pending flag
X'0100 — do not enter defect management if set (for dgn)
X'0080 — no work

C — Drive table status word 1.

Bit field definitions for dtstat word 1 are as follows.

X'8000 — go indication flag
X'4000 — not used
X'2000 — DMA operation completed successfully
X'1000 — DMA operation detected error
X'0800 — marker read flag
X'0400 — boot request active flag
X'0200 — segment break flag
X'0100 — enable segment breaks
X'0080 — 0-read, boot, verify 1-write, init
X'0040 — verify command flag
X'0020 — init command flag
X'0010 — no marker read-wait for index flag
X'0008 — DMA required flag
X'0004 — address mismatch flag (read only)
X'0004 — write gate off flag (write only)
X'0002 — skip defect management check
X'0001 — first sector flag for read

D — ID plug number.

E — Completion and enhanced error codes.

This field consists of three subfields: the command completion code, the error code status flag, and the internal DFC error code.

The meaning of command completion code subfield value is found in one of two command completion code lists. The list to reference is determined by the value in the error code status flag subfield. If the error code status flag value indicates an autonomous response, then reference the autonomous completion code list; otherwise, reference the non-autonomous completion code list.

The completion and enhanced error code field is eight hexadecimal digits of the form aaaabccc.

aaaa — Command completion code.

Values for autonomous completion codes are as follows.

X'0000 — instrumentation data
X'0100 — diagnostic failure
X'0200 — MHD exerciser failure
X'0300 — sysgen response
X'0400 — boot complete response
X'0500 — DFC idle response
X'0600 — illegal command / parameters
X'0700 — high temperature
X'0800 — not used

Values for non-autonomous completion codes are as follows.

X'0000 — successful completion code
X'0400 — verify completed - errors detected, however
X'8100 — PIC RAM boundary error
X'8300 — seek error on disk
X'8500 — no index detected on disk
X'8900 — MHD status error
X'8B00 — uncorrectable data error
X'8D00 — disk boundary overflow
X'8F00 — head-sector mismatch error
X'9100 — wrong disk selected
X'9300 — no disk selected
X'9500 — head positioning error
X'9700 — head selection error
X'9900 — BIC parity error
X'9B00 — BIC-PIC soft error
X'9D00 — PIC error
X'9F00 — DMA setup overwrite
X'A100 — early EOT from DMA
X'A300 — no EOT from DMA
X'A700 — PSDI FIFO parity error
X'A900 — PSDI FIFO underflow error
X'AB00 — PSDI FIFO overflow error
X'AD00 — PSDI acknowledge failure
X'AF00 — extra data in PSDI FIFO
X'B100 — disk data buffer error
X'B300 — main store address error
X'B500 — disk time out error
X'B700 — DMA time out error
X'BB00 — uncorrectable data error in MFGR defect table
X'BD00 — defect table overflow
X'BF00 — command for defective disk
X'C100 — unable to create our defect table on the disk
X'C300 — manufacturer specified more than the maximum number of defects allowed
X'C500 — uncorrectable data error on area that is guaranteed to be error free
X'C700 — invalid data in defect table

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X'C900 — invalid data in RAM
X'CB00 — invalid MFGR defect table
X'CD00 — uncorrectable data error in defect table
X'CF00 — unable to read defect table
X'E100 — bad version information in pump file
X'E500 — pump timeout
X'D100 — unable to read MFGR's defect table
X'D300 — unable to write defect table on the disk
X'D500 — ramreg has incorrect value
X'D700 — uncorrectable data error and read TEMP list failed
X'D900 — uncorrectable data error and TEMP list overflow
X'DA00 — uncorrectable data error and the attempt to write the TEMP list failed

b — Error code status flag.

X'0 — instrumentation data has not been saved
X'4 — instrumentation data has been saved
X'8 — autonomous response
X'C — autonomous response with instrumentation data saved

ccc — Internal DFC error code.

X'001 — REX verify not inserted
X'002 — DGN drive number out of range
X'003 — defect table read not inserted
X'004 — read not inserted
X'005 — seek not inserted
X'006 — verify not inserted
X'007 — write not inserted
X'008 — DFC online when DGN requested
X'009 — MHD online when DGN requested
X'00A — run on board over run
X'00B — invalid DGN command pointer
X'00C — invalid system requested DGN command
X'00D — invalid routine exercise command
X'00E — invalid DGN command type
X'00F — no subroutine requested by diagnostic
X'010 — invalid put response table pointer
X'011 — putrsp in wrong state
X'012 — RAM board failure
X'013 — no response from RAM board
X'014 — invalid divide masks detected by axlate
X'015 — invalid current state for putrsp
X'016 — invalid return code from oncyldp
X'017 — invalid return code from skcylnd
X'018 — invalid return code from skcylnd
X'019 — invalid return code from skcylnd
X'01A — invalid data in DTSTAT0
X'01B — invalid return code from skcylnd

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X'01C — invalid input to dtsetp
X'01D — schdlr detected invalid DFC state
X'01E — error detected by dtsetp
X'01F — read RAM boundary error
X'020 — write RAM boundary error
X'021 — attempt to cmsmhd when dfc offline
X'022 — attempt to cmsmhd to online-unit not ready
X'023 — select drive in priority sel/rel failed
X'024 — unit not ready - priority release
X'025 — unclearable fault - priority release
X'026 — defect table not in memory (dfctmg)
X'027 — disk maximum address exceeded - axlate
X'028 — no end code in RAM defect table (dfctmg)
X'029 — bad cylinder translation (dfctmg)
X'02A — bad sector for MFGR head (dmngmt)
X'02B — bad sector for TEMP head (dmngmt)
X'02C — bad head for copy request (dmngmt)
X'02D — bad dtstat0 options (dmngmt)
X'02E — update defect table write failed (dmngmt)
X'02F — TEMP defect table write failed (dmngmt)
X'030 — not defect management job (dmngmt)
X'031 — no defects for this drive (cpyupd)
X'032 — max head exceeded in MFGR table (cpyupd)
X'033 — max cylinder exceeded in MFGR table (cpyupd)
X'034 — max sector exceeded in MFGR table (cpyupd)
X'035 — no end code for MFGR defect table (cpyupd)
X'036 — bad defects order in MFGR table (cpyupd)
X'037 — no end code for TEMP defect table (cpytmp)
X'039 — bad TEMP defect table start code (cpytmp)
X'03B — no end code for COMB defect table (prcdfj)
X'03C — defect hash code does not match (prcdfj)
X'03D — bad COMB defect table start code (prcdfj)
X'03E — read defect table failed (drdchk)
X'03F — bad version information in pump data
X'050 — missing routine
X'051 — time-out no sector/index intr in 600us
X'052 — on-cylinder could not select disk
X'053 — on-cylinder detected seek time-out
X'054 — maximum cylinder number exceeded
X'055 — cylinder mismatch (expected != read)
X'056 — head/sector mismatch (expected != read)
X'057 — physical address not updated in time
X'058 — PSDI FIFO time-out (first address word)
X'059 — PSDI FIFO time-out (second address word)
X'05A — PSDI FIFO time-out (reading data)
X'05B — PSDI status error during read
X'05C — read gate turn off time out
X'05D — data buffer pointer error (diff > size)
X'05E — missed an ECC interrupt
X'05F — uncorrectable data error

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X'060 — ECC / Addr buffer full
X'061 — address update done too late (during write)
X'062 — data buffer pointer error (diff > size)
X'063 — no disk acknowledgment received
X'064 — multiple disk responded (first select)
X'065 — wrong or multiple disks responded
X'066 — can't clear drive fault
X'067 — seek error in disk status set
X'068 — seek did not start
X'069 — PSDI did not start during a read
X'06A — PSDI did not start during a write
X'06B — seek time-out (detected by skcylnd)
X'06C — sector / index interrupt time-out (read)
X'06D — sector / index interrupt time-out (write)
X'06E — seek error on new cylinder
X'06F — index time out on new cylinder
X'070 — PSDI FIFO error during write
X'071 — PSDI FIFO unload time before head select
X'072 — job start sector / index interrupt time out
X'073 — time-out waiting for ECC (new cylinder)
X'074 — time-out waiting for write to go off
X'075 — uncorrectable data error during verify
X'076 — address mismatch failure during verify
X'077 — disk access job aborted due to DMA error
X'078 — seek error detected by select routine
X'079 — drive fault during write operation

G — Disk status register and flags.

This field consists of two subfields: the status flags and the disk status register of the form aabb.

aa = Status flags.

Bit field definitions are as follows.

X'01 — multiple drives responded
X'02 — wrong drive responded
X'04 — no drive responded
X'08 — cannot clear drive fault
X'10 — seek error set when drive was selected
X'20 — cannot make selected drive "ready"
X'40 — fatal error during drive select
X'80 — some kind of drive select error occurred

bb = Disk status register.

Bit field definitions are as follows.

X'01 — heads have not been loaded
X'02 — on cylinder
X'04 — unit ready

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X'08 — high temperature warning
X'10 — seek error
X'20 — fault flag
X'40 — sector mark flag
X'80 — index mark flag

If the disk status register subfield contains the value FF, then the disk status register subfield should be ignored.

H — Starting cylinder of current job.

I — Starting head of current job.

J — Starting sector of current job.

K — Number of sectors in current job.

L — Current cylinder.

M — Current head.

N — Current sector.

Format 2 (EIR long form):

Where *b* = 1, this printout follows.

```
xxxxxxxx AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA BBBBBBBB BBBBBBBB BBBBBBBB
BBBBBBBB CCCCDDDD EFGGxxxx HHHHIIII IIIIIIII IIIIIIII IIIIxxxx xxxxxxxx
```

A — Current DFC related command.

B — Previous DFC related command.

C — DFC copy of response queue load pointer.

D — Version number of the DFC firmware.

Layout of version words are as follows.

4 bits — DFC generic number.
6 bits — DFC issue number.
6 bits — DFC point issue number.

E — Tens digit of DFC EDI.

F — Units digit of DFC EDI.

G — ASCII letter of DFC EDI.

H — DFC code (FFFO).

I — Internal list pointers.

Where *b* = 2, this printout follows:

```
AAAABBBB xxxxxxxx xxxxxxxx CCCCxxxx DDDDDDDD xxxxxxxx EEEEFFFF FFFFFFFF
FFFFxxxx xxxxxxxx xxxxxxxx xxxxxxxx xxxxxxxx xxxxxxxx xxxxxxxx xxxxxxxx
```

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A — Current DFC state.

Values the cstate may assume are as follows.

X'0001 — initial state after a reset
X'0002 — firmware initialization state
X'0004 — normal operating state in the asynchronous mode
X'0008 — normal operating state in the synchronous mode
X'0010 — sleep state in the synchronous mode
X'0020 — sleep state in the asynchronous mode
X'0040 — job completion state in the initl mode
X'0080 — job completion state in the synchronous mode
X'0100 — job failure state in the asynchronous mode
X'FE00 — invalid state mask

B — Data flags.

Bit field definitions for dflags word are as follows.

X'8000 — defect table in memory flag (1-in, 0-out)
X'4000 — REX allowed flag (1-alw, 0-inh)
X'2000 — drive in-service indicator (1-out, 0-in)
X'1000 — optimization bit (1-on)
X'0800 — uncorrectable data error
X'0400 — defect management update write job

C — Pointer to drive table of currently active drive.

D — Completion and enhanced error codes.

This field consists of three subfields: the command completion code, the error code status flag, and the internal DFC error code.

The meaning of the command completion code subfield value is found in one of two command completion code lists. The list to reference is determined by the value in the error code status flag subfield. If the error code status flag value indicates an autonomous response, then reference the autonomous completion code list; otherwise, reference the non-autonomous completion code list.

The completion and enhanced error code field is eight hexadecimal digits of the form aaaabccc.

aaaa = Command completion code.

Values for autonomous completion codes are as follows.

X'0000 — instrumentation data
X'0100 — diagnostic failure
X'0200 — MHD exerciser failure
X'0300 — sysgen response
X'0400 — boot complete response

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X'0500 — DFC idle response
X'0600 — illegal command / parameters
X'0700 — high temperature
X'0800 — not used

Values for non-autonomous completion codes are as follows.

X'0000 — successful completion code
X'0400 — verify completed - error detected, however
X'8100 — PIC RAM boundary error
X'8300 — seek error on disk
X'8500 — no index detected on disk
X'8900 — MHD status error
X'8B00 — uncorrectable data error
X'8D00 — disk boundary overflow
X'8F00 — head-sector mismatch error
X'9100 — wrong disk selected
X'9300 — no disk selected
X'9500 — head positioning error
X'9700 — head selection error
X'9900 — BIC parity error
X'9B00 — BIC-PIC soft error
X'9D00 — PIC error
X'9F00 — DMA setup overwrite
X'A100 — early EOT from DMA
X'A300 — no EOT from DMA
X'A700 — PSDI FIFO parity error
X'A900 — PSDI FIFO underflow error
X'AB00 — PSDI FIFO overflow error
X'AD00 — PSDI acknowledge failure
X'AF00 — extra data in PSDI FIFO
X'B100 — disk data buffer error
X'B300 — main store address error
X'B500 — disk time out error
X'B700 — DMA time out error
X'BB00 — uncorrectable data error in MFGR defect table
X'BD00 — defect table overflow
X'BF00 — command for defective disk
X'C100 — unable to create our defect table on the disk
X'C300 — manufacturer specified more than the maximum number of defects allowed
X'C500 — uncorrectable data error on area that is guaranteed to be error free
X'C700 — invalid data in defect table
X'C900 — invalid data in RAM
X'CB00 — invalid MFGR defect table
X'CD00 — uncorrectable data error in defect table
X'CF00 — unable to read defect table
X'E100 — bad version information in pump file
X'E500 — pump timeout
X'D100 — unable to read MFGR's defect table

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X'D300 — unable to write defect table on the disk
X'D500 — ramreg has incorrect value
X'D700 — uncorrectable data error and read TEMP list failed
X'D900 — uncorrectable data error and TEMP list overflow
X'DA00 — uncorrectable data error and the attempt to write the TEMP list failed

b = Error code status flag.

X'0 — instrumentation data has not been saved
X'4 — instrumentation data has been saved
X'8 — autonomous response
X'C — autonomous response with instrumentation data saved

ccc = Internal DFC error code.

X'001 — REX verify not inserted
X'002 — DGN drive number out of range
X'003 — defect table read not inserted
X'004 — read not inserted
X'005 — seek not inserted
X'006 — verify not inserted
X'007 — write not inserted
X'008 — DFC online when DGN requested
X'009 — MHD online when DGN requested
X'00A — run on board over run
X'00B — invalid DGN command pointer
X'00C — invalid system requested DGN command
X'00D — invalid routine exercise command
X'00E — invalid DGN command type
X'00F — no subroutine requested by diagnostic
X'010 — invalid put response table pointer
X'011 — putrsp in wrong state
X'012 — RAM board failure
X'013 — no response from RAM board
X'014 — invalid divide masks detected by axlate
X'015 — invalid current state for putrsp
X'016 — invalid return code from oncyldp
X'017 — invalid return code from skcylnd
X'018 — invalid return code from skcylnd
X'019 — invalid return code from skcylnd
X'01A — invalid data in DTSTATO
X'01B — invalid return code from skcylnd
X'01C — invalid input to dtsetp
X'01D — schdlr detected invalid DFC state
X'01E — error detected by dtsetp
X'01F — read RAM boundary error
X'020 — write RAM boundary error
X'021 — attempt to cmsmhd when dfc offline
X'022 — attempt to cmsmhd to online-unit not ready

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X'023 — select drive in priority sel / rel failed
X'024 — unit not ready - priority release
X'025 — unclearable fault - priority release
X'026 — defect table not in memory (dfctmg)
X'027 — disk maximum address exceeded - axlate
X'028 — no end code in RAM defect table (dfctmg)
X'029 — bad cylinder translation (dfctmg)
X'02A — bad sector for MFGR head (dmngmt)
X'02B — bad sector for TEMP head (dmngmt)
X'02C — bad head for copy request (dmngmt)
X'02D — bad dtstat0 options (dmngmt)
X'02E — update defect table write failed (dmngmt)
X'02F — TEMP defect table write failed (dmngmt)
X'030 — not defect management job (dmngmt)
X'031 — no defects for this drive (cpyupd)
X'032 — max head exceeded in MFGR table (cpyupd)
X'033 — max cylinder exceeded in MFGR table (cpyupd)
X'034 — max sector exceeded in MFGR table (cpyupd)
X'035 — no end code for MFGR defect table (cpyupd)
X'036 — bad defects order in MFGR table (cpyupd)
X'037 — no end code for TEMP defect table (cpytmp)
X'039 — bad TEMP defect table start code (cpytmp)
X'03B — no end code for COMB defect table (prcdfj)
X'03C — defect hash code does not match (prcdfj)
X'03D — bad COMB defect table start code (prcdfj)
X'03E — read defect table failed (drdchk)
X'03F — bad version information in pump data
X'050 — missing routine
X'051 — time-out no sector / index intr in 600us
X'052 — on-cylinder could not select disk
X'053 — on-cylinder detected seek time-out
X'054 — maximum cylinder number exceeded
X'055 — cylinder mismatch (expected != read)
X'056 — head / sector mismatch (expected != read)
X'057 — physical address not updated in time
X'058 — PSDI FIFO time-out (first address word)
X'059 — PSDI FIFO time-out (second address word)
X'05A — PSDI FIFO time-out (reading data)
X'05B — PSDI status error during read
X'05C — read gate turn off time out
X'05D — data buffer pointer error (diff > size)
X'05E — missed an ECC interrupt
X'05F — uncorrectable data error
X'060 — eCC / Addr buffer full
X'061 — address update done too late (during write)
X'062 — data buffer pointer error (diff > size)
X'063 — no disk acknowledgment received
X'064 — multiple disk responded (first select)
X'065 — wrong or multiple disks responded
X'066 — can't clear drive fault

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X'067 — seek error in disk status set
X'068 — seek did not start
X'069 — PSDI did not start during a read
X'06A — PSDI did not start during a write
X'06B — seek time-out (detected by skcylnd)
X'06C — sector/index interrupt time-out (read)
X'06D — sector/index interrupt time-out (write)
X'06E — seek error on new cylinder
X'06F — index time out on new cylinder
X'070 — PSDI FIFO error during write
X'071 — PSDI FIFO unload time before head select
X'072 — job start sector/index interrupt time out
X'073 — time-out waiting for ECC (new cylinder)
X'074 — time-out waiting for write to go off
X'075 — uncorrectable data error during verify
X'076 — address mismatch failure during verify
X'077 — disk access job aborted due to DMA error
X'078 — seek error detected by select routine
X'079 — drive fault during write operation

E — Size of disk data buffer (16-bit words).

F — Initialization pattern.

Where *b* = 3 or 4, this printout follows:

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
```

A — Routine trace buffer (for developer use only).

Where *b* = 5, this printout follows:

```
AAAABBBB CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC DDDDDDDD DDDDDDDD DDDDDDDD
DDDDDDDD EEEEFFFF GGGGGGGG HHHHIIII IIIIIIII IIIIIIII IIIIxxxx JJJJKKKK
```

A — Drive table status word 0.

Bit field definitions for dtstat word 0 are as follows.

X'8000 — disk access required flag
X'4000 — seek only command flag
X'2000 — non-disk access command present flag
X'1000 — defect table setup only - no disk access
X'0800 — seek required flag
X'0400 — call to dtsetp required
X'0200 — seek pending flag
X'0100 — do not enter defect mangement if set (for dgn)
X'0080 — no work

B — Drive table status word 1.

Bit field definitions for dtstat word 1 are as follows.

X'8000 — go indication flag
X'4000 — not used
X'2000 — DMA operation completed successfully
X'1000 — DMA operation detected error
X'0800 — marker read flag
X'0400 — boot request active flag
X'0200 — segment break flag
X'0100 — enable segment breaks
X'0080 — 0-read, boot, verify 1-write, init
X'0040 — verify command flag
X'0020 — init command flag
X'0010 — no marker read-wait for index flag
X'0008 — DMA required flag
X'0004 — address mismatch flag (read only)
X'0004 — write gate off flag (write only)
X'0002 — skip defect management check
X'0001 — first sector flag for read

C — Current drive table command.

D — Previous drive table command.

E — Number of cylinders on this drive.

F — Number of tracks per cylinder.

G — Division masks for converting block number to cylinder, head, and sector.

H — Drive number.

I — Internal list pointers.

J — Maximum number of readable cylinders.

K — Maximum number of verifiable cylinders.

Where b = 6, this printout follows:

```
AAAABBBB CCCCDDDD EEEExxxx xxxxFFFF GGGGGGGG IIIIxxxx xxxxxxxx xxxxxxxx
xxxxxxxx JJJJKKKK LLLLMMMM xxxxNNNN OOOOPPPP xxxxxxxx xxxxxxxx xxxxxxxx
```

A — Port number associated with this drive.

B — Data flags.

Bit field definitions for dflags word are as follows.

X'8000 — defect table in memory flag (1-in, 0-out)
X'4000 — REX allowed flag (1-alw, 0-inh)
X'2000 — drive in-service indicator (1-out, 0-in)
X'1000 — optimization bit (1-on)
X'0800 — uncorrectable data error
X'0400 — defect management update write job

SEE PROPRIETARY NOTICE ON COVER PAGE

C — Current direction of heads.

D — Next cylinder for routine exercises.

E — Next head for routine exercises.

F — Pointer to initialization pattern.

G — Completion and enhanced error codes.

See the "completion and enhanced error codes" field described in segment 2 of this report for a description of this field and the completion code values.

I — Disk status register and flags.

This field consists of two subfields: the status flags and the disk status register of the form aabb.

aa = Status flags.

Bit field definitions are as follows.

X'01 — multiple drives responded
X'02 — wrong drive responded
X'04 — no drive responded
X'08 — cannot clear drive fault
X'10 — seek error set when drive was selected
X'20 — cannot make selected drive "ready"
X'40 — fatal error during drive select
X'80 — some kind of drive select error occurred

bb = Disk status register.

Bit field definitions are as follows.

X'01 — heads have not been loaded
X'02 — on cylinder
X'04 — unit ready
X'08 — high temperature warning
X'10 — seek error
X'20 — fault flag
X'40 — sector mark flag
X'80 — index mark flag

If the disk status register subfield contains the value FF, then the disk status register subfield should be ignored.

J — Starting cylinder of current job.

K — Starting head of current job.

L — Starting sector of current job.

M — Number of sectors in current job.

N — Current cylinder.

O — Current head.

P — Current sector.

Where *b* = 7 or 9, this printout follows.

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
```

A — ECC buffer.

NOTE: There may be from 1 to 16 fields in segment 9.

Where *b* = 8, this printout follows.

```
xxxxAAAA BBBBCCCC DDDDEEFF GGGGHHHH IIIIJJJJ KKKKLLLL DDDDEEFF GGGGHHHH
IIIIJJJJ KKKKLLLL DDDDEEFF GGGGHHHH IIIIJJJJ KKKKLLLL DDDDEEFF GGGGHHHH
```

A, B, C — Pointers into ECC table.

D — Cylinder from disk.

E — Track from disk.

F — Sector from disk.

G — Expected cylinder.

H — Expected track.

I — Expected sector.

J — Block.

K — Word.

L — Correction code.

4. ACTION TO BE TAKEN

This report provides supplemental data associated with a response returned to the computer. The messages printed on the receive-only printer (ROP) around the report should be checked to determine the significance of the report.

A two-segment report is generated after a SYSGEN command has been received from the computer and before the response for the SYSGEN command is returned to the computer. All of the data in this particular report should be ignored.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Input Messages

DGN:DFC
DGN:MHD
RMV:DFC
RMV:MHD
RST:DFC
RST:MHD

Output Messages

DGN-DFC
DGN-MHD
RMV-DFC
RMV-MHD
RST-DFC
RST-MHD

Practice 254-301-215 *Disk File Controller Description and Theory of Operation 3B20D Model 1 Computer*

ID . . . . . REPT-DFCI-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

REPT DFCI *a* DATA *b-c* X' *d*

2. REASON FOR OUTPUT

To print the additional information provided by the disk file controller (DFC).

3. VARIABLE FIELD DEFINITIONS

a = Unit number.

b = Segment number of information report.

c = Number of segments of information report.

d = Sequence number for this report.

Where *b* = 1, this printout follows:

```
AAAAAAAA BBBBBBBB CCCCCCCC DDDDDDDD EEEEFGHH IIIIIIII JJJJJJJJ KKKKKKKK
LLLLLLLL LLLLLLLL LLLLLLLL LLLLLLLL MMMMMMMM MMMMMMMM MMMMMMMM MMMMMMMM
```

A Command completion word:
aabbcdee

- a Completion code. See output DFC Appendix B, DFC-APPB, Tables 1 and 2.
- b Number of blocks read / written on short failure of read / write command.
- c Bus / device ID number of the device associated with the activity identified by this response. If the activity references the host adapter (HA), this field is not used by the DFC.
- d Autonomous completion code. See output DFC Appendix B, DFC-APPB, Table 3.
- e Job ID number.

B Moving head disk (MHD) status word. See output DFC Appendix C, DFC-APPC.

C Operational firmware version. See output DFC Appendix O, DFC-APPO.

D Pumpcode version. See output DFC Appendix O, DFC-APPO.

E Enhanced completion code. See output DFC Appendix B, DFC-APPB, Table 4.

F SCSI bus 0 enabled status and HA ID number:
abbb

SEE PROPRIETARY NOTICE ON COVER PAGE

a — SCSI bus enabled:

0 — Bus is not enabled.
1 — Bus is enabled.

b — HA ID number.

G SCSI bus 1 status and HA ID number:
abbb

a — SCSI bus enabled:

0 — Bus is not enabled.
1 — Bus is enabled.

b — HA ID number.

H Firmware/driver communications register. See output DFC Appendix B, DFC-APPB, Table 5.

I HA status register. See output DFC Appendix N, DFC-APPN.

J Bus interface controller (BIC) status register. See output DFC Appendix F, DFC-APPF.

K Routine exerciser failing block number.

L Failing command received from the computer. See output DFC Appendix M, DFC-APPM.

M Previous command received from the computer. See output DFC Appendix M, DFC-APPM. This information may not be useful when pumpcode is running.

Where *b* = 2, this printout follows:

```
AABBCCDD EEEEEEEE FFFFFFFF GGGGGGGG GGGGGGGG GGGGGGGG GGGGGGGG HHHHHHHH
HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH
```

A Device number.

B Other device number.

C Job type pending. See output DFC Appendix B, DFC-APPB, Table 6.

D Device maintenance mode.

0 — Device is ONLINE.
1 — Device is OFFLINE.

E Last logical block address of the device.

F Target controller's logical block size in bytes.

G Extended sense data. See output DFC Appendix J, DFC-APPJ.

H Inquiry data. See output DFC Appendix L, DFC-APPL.

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Where *b* = 3, this printout follows:

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA BBBBBBBB BBBBBBBB BBBBBBBB CCCCCCCC
```

A First SCSI job block (SJB) structure. See output DFC Appendix K, DFC-APPK.

B SCSI command. See Notes at the end of this section.

C Retry count.

Where *b* = 4, this printout follows:

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA BBBBBBBB BBBBBBBB BBBBBBBB CCCCCCCC
```

A Second SJB structure. See output DFC Appendix K, DFC-APPK.

B Second SCSI command. See Notes at the end of this section.

C Location of the routine exerciser on the device in logical blocks.

Where *b* = 5, this printout follows:

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA BBBBBBBB BBBBBBBB BBBBBBBB BBBBBBBB
```

A Third SJB structure. See output DFC Appendix K, DFC-APPK.

B Command received from the computer.

Where *b* = 6, this printout follows:

```
AAAAAAAA BBBBBBBB CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC
CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC
```

A Device busy condition at time of job termination:

0 — Device was not in a busy condition.
1 — Device was in a busy condition.

B Timer ID associated with busy condition.

C Reserved for future use.

Where *b* = 7, this printout follows:

```
AABBCCDD EEEEEEEE FFFFFFFF GGGGGGGG GGGGGGGG GGGGGGGG GGGGGGGG HHHHHHHH
HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH
```

A Device number.

B Other device number.

C Job type pending. See output DFC Appendix B, DFC-APPB, Table 6.

D Device maintenance mode:

0 — Device is ONLINE.
1 — Device is OFFLINE.

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E Last logical block address of the device.

F Target controller's logical block size in bytes.

G Inquiry data. See output DFC Appendix L, DFC-APPL.

H Extended sense data. See output DFC Appendix J, DFC-APPJ.

Where *b* = 8, this printout follows:

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA BBBBBBBB BBBBBBBB BBBBBBBB CCCCCCCC
```

A First SJB structure. See output DFC Appendix K, DFC-APPK.

B SCSI command. See Notes at the end of this section.

C Retry count.

Where *b* = 9, this printout follows:

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA BBBBBBBB BBBBBBBB BBBBBBBB CCCCCCCC
```

A Second SJB structure. See output DFC Appendix K, DFC-APPK.

B Second SCSI command. See Notes at the end of this section.

B Location of the routine exerciser on the device in logical blocks.

Where *b* = 10, this printout follows:

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA BBBBBBBB BBBBBBBB BBBBBBBB BBBBBBBB
```

A Third SJB structure. See output DFC Appendix K, DFC-APPK.

B Command received from the computer.

Where *b* = 11, this printout follows:

```
AAAAAAAA BBBBBBBB CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC
CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC
```

A Device busy condition at time of job termination:

0 — Device was not in a busy condition.
1 — Device was in a busy condition.

B Timer ID associated with busy condition.

C Reserved for future use.

NOTE: There are normally one, five, or nine segments of data output.

The task entry data does not contain any information which can be used by the craft. The information is useful to the developer/maintainer of the firmware/pumpcode. The information may be useful to the Technical Assistance centers.

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The SCSI commands do not contain any information which can be used by the craft. The information is useful to the developer/maintainer of the firmware/pumpcode. The information may be useful to the Technical Assistance centers. The detailed explanation of this data is in the *LUCENT Small Computer Computer System Interface (SCSI) Definition.*

4. ACTION TO BE TAKEN

An information report provides additional information about a condition which could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages which provide useful data may be output.

5. ALARMS

None.

6. REFERENCES

Output Appendixes

DFC-APPB
DFC-APPC
DFC-APPF
DFC-APPJ
DFC-APPK
DFC-APPL
DFC-APPM
DFC-APPN
DFC-APPO

Input Messages

DGN:DFC
DGN:MHD
RMV:DFC
RMV:SBUS
RMV:MHD
RST:DFC
RST:SBUS
RST:MHD

Output Messages

DGN-DFC
DGN-MHD
RMV-DFC
RMV-SBUS
RMV-MHD
RST-DFC
RST-SBUS
RST-MHD

ID . . . . . REPT-DFCI-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT DFCI` *a*
`AAAAAAAA BBBBBBBB CCCCCCCC DDDDDDDD EEEEFFGG HHHHHHHH IIIIIIII JJJJJJJJ`
`KKKKKKKK KKKKKKKK KKKKKKKK KKKKKKKK LLLLLLLL LLLLLLLL LLLLLLLL LLLLLLLL`

[2] `REPT DFCI` *a* `DATA` *b-c* `X'` *d*

2. REASON FOR OUTPUT

To print the enhanced information report (EIR) provided by the small computer system interface (SCSI) disk file controller (DFC).

Format 1 prints when the short form of the EIR is requested.

Format 2 prints when the long form of the EIR is requested.

3. VARIABLE FIELD DEFINITIONS

a = Unit number.

b = Segment number of information report.

c = Number of segments of information report.

d = Sequence number for this report.

Format 1 (EIR short form):

A — Command completion word.

The completion word is eight hexadecimal digits of the form aabbcdee.

aa = Completion code. See output DFC Appendix B, DFC-APPB, Tables 1 and 2.

bb = Number of blocks read / written on short failure of read / write command.

c = Bus / Device ID number of the device associated with the activity identified by this response. If the activity references the host adapter (HA), this field is not used by the DFC.

d = Autonomous completion code. See output DFC Appendix B, DFC-APPB, Table 3.

NOTE: d is only valid when ee is zero.

ee = Job ID number.

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B — MHD status word. See output DFC Appendix C, DFC-APPC.

C — Operational firmware version. See output DFC Appendix O, DFC-APPO.

D — Pumpcode version. See output DFC Appendix O, DFC-APPO.

E — Enhanced completion code. See output DFC Appendix B, DFC-APPB, Table 4.

F — SCSI bus enabled status and HA ID number. It is comprised of 4 bits of the form abbb.

a = SCSI bus enabled status.

0 — Bus is not enabled.

1 — Bus is enabled.

bbb = HA ID number.

G — Firmware/Driver communications register. See output DFC Appendix B, DFC-APPB, Table 5.

H — HA status register. See output DFC Appendix N, DFC-APPN.

I — BIC status register. See output DFC Appendix F, DFC-APPF.

J — Previous command received from the computer. See output DFC Appendix M, DFC-APPM. This information may not be useful when pumpcode is running.

K — Failing command received from the computer. See output DFC Appendix M, DFC-APPM.

L — Extended sense data. See output DFC Appendix J, DFC-APPJ.

Format 2 (EIR long form):

Where *b* = 1, this printout follows:

```
AAAAAAAA BBBBBBBB CCCCCCCC DDDDDDDD EEEEFGHH IIIIIIII JJJJJJJJ KKKKKKKK
LLLLLLLL LLLLLLLL LLLLLLLL LLLLLLLL MMMMMMMM MMMMMMMM MMMMMMMM MMMMMMMM
```

A — Command completion word:

The completion word is eight hexadecimal digits of the form aabbcdee.

aa = Completion code. See output DFC Appendix B, DFC-APPB, Tables 1 and 2.

bb = Number of blocks read/written on short failure of read/write command.

c = Bus/Device ID number of the device associated with the activity identified by this response. If the activity references the HA, this field is not used by the DFC.

d = Autonomous completion code. See output DFC Appendix B, DFC-APPB, Table 3.

NOTE: d is only valid when ee is zero.

ee = Job ID number.

B — MHD status word. See output DFC Appendix C, DFC-APPC.

C — Operational firmware version. See output DFC Appendix O, DFC-APPO.

D — Pumpcode version. See output DFC Appendix O, DFC-APPO.

E — Enhanced completion code. See output DFC Appendix B, DFC-APPB, Table 4.

F — SCSI bus 0 enabled status and HA ID number. It is comprised of 4 bits of the form abbb.

a = SCSI bus enabled status.

0 — Bus is not enabled.
1 — Bus is enabled.

bbb = HA ID number.

G — SCSI bus 1 enabled status and HA ID number: It is comprised of 4 bits of the form abbb.

a = SCSI bus enabled status.

0 — Bus is not enabled.
1 — Bus is enabled.

bbb = HA ID number.

H — Firmware/driver communications register. See output DFC Appendix B, DFC-APPB, Table 5.

I — HA status register. See output DFC Appendix N, DFC-APPN.

J — BIC status register. See output DFC Appendix F, DFC-APPF.

K — Routine exerciser failing block number.

L — Failing command received from the computer. See output DFC Appendix M, DFC-APPM.

M — Previous command received from the computer. See output DFC Appendix M, DFC-APPM. This information may not be useful when pumpcode is running.

Where *b* = 2, this printout follows:

```
AABBCCDD EEEEEEEE FFFFFFFF GGGGGGGG GGGGGGGG GGGGGGGG GGGGGGGG HHHHHHHH
HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH
```

A — Device number.

B — Other device number.

C — Job type pending. See output DFC Appendix B, DFC-APPB, Table 6.

D — Device maintenance mode.

0 — Device is ONLINE.
1 — Device is OFFLINE.

E — Last logical block address of the device.

F — Target controller's logical block size in bytes.

G — Extended sense data. See output DFC Appendix J, DFC-APPJ.

H — Inquiry data. See output DFC Appendix L, DFC-APPL.

Where *b* = 3, this printout follows:

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA BBBBBBBB BBBBBBBB BBBBBBBB CCCCCCCC
```

A — First SCSI job block (SJB) structure. See output DFC Appendix K, DFC-APPK.

B — SCSI command (see **NOTES** at the end of this section).

C — Retry count.

Where *b* = 4, this printout follows:

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA BBBBBBBB BBBBBBBB BBBBBBBB CCCCCCCC
```

A — Second SJB structure. See output DFC Appendix K, DFC-APPK.

B — Second SCSI command (see **NOTES** at the end of this section).

C — Location of the routine exerciser on the device in logical blocks.

Where *b* = 5, this printout follows:

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA BBBBBBBB BBBBBBBB BBBBBBBB BBBBBBBB
```

A — Third SJB structure. See output DFC Appendix K, DFC-APPK.

B — Command received from the computer. See output DFC Appendix M, DFC-APPM.

Where *b* = 6, this printout follows:

```
AAAAAAAA BBBBBBBB CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC
CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC
```

A — Device busy condition at time of job termination.

0 — Device was not in a busy condition.
1 — Device was in a busy condition.

B — Timer ID associated with busy condition.

C — Reserved for future use.

Where *b* = 7, this printout follows:

```
AABBCCDD EEEEEEEE FFFFFFFF GGGGGGGG GGGGGGGG GGGGGGGG GGGGGGGG HHHHHHHH
HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH
```

A — Device number.

B — Other device number.

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C — Job type pending. See output DFC Appendix B, DFC-APPB, Table 6.

D — Device maintenance mode.

0 — Device is ONLINE.
1 — Device is OFFLINE.

E — Last logical block address of the device.

F — Target controller's logical block size in bytes.

G — Inquiry data. See output DFC Appendix L, DFC-APPL.

H — Extended sense data. See output DFC Appendix J, DFC-APPJ.

Where *b* = 8, this printout follows:

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA BBBBBBBB BBBBBBBB BBBBBBBB CCCCCCCC
```

A — First SJB structure. See output DFC Appendix K, DFC-APPK.

B — SCSI command (see **NOTES** at the end of this section).

C — Retry count.

Where *b* = 9, this printout follows:

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA BBBBBBBB BBBBBBBB BBBBBBBB CCCCCCCC
```

A — Second SJB structure. See output DFC Appendix K, DFC-APPK.

B — Second SCSI command (see **NOTES** at the end of this section).

C — Location of the routine exerciser on the device in logical blocks.

Where *b* = 10, this printout follows:

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA BBBBBBBB BBBBBBBB BBBBBBBB BBBBBBBB
```

A — Third SJB structure. See output DFC Appendix K, DFC-APPK.

B — Command received from the computer. See output DFC Appendix M, DFC-APPM.

Where *b* = 11, this printout follows:

```
AAAAAAAA BBBBBBBB CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC
CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC
```

A — Device busy condition at time of job termination.

0 — Device was not in a busy condition.
1 — Device was in a busy condition.

B — Timer ID associated with busy condition.

C — Reserved for future use.

NOTE: There are normally 1, 6, or 11 segments of data output.

SEE PROPRIETARY NOTICE ON COVER PAGE

The task entry data does not contain any information that is helpful to a user. The information is useful to the developer/maintainer of the firmware/pumpcode. The information may be useful to the Technical Assistance centers.

The SCSI commands do not contain any information that is helpful to a user. The information is useful to the developer/maintainer of the firmware/pumpcode. The information may be useful to the Technical Assistance centers. The detailed explanation of this data is in the *LUCENT Small Computer System Interface (SCSI) Definition*.

4. ACTION TO BE TAKEN

An information report provides additional information about a condition that could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages that provide useful data may be output.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Output Appendixes

```
DFC-APPB
DFC-APPC
DFC-APPF
DFC-APPJ
DFC-APPK
DFC-APPL
DFC-APPM
DFC-APPN
DFC-APPO
```

Input Messages

```
DGN:DFC
DGN:MHD
RMV:DFC
RMV:MHD
RMV:SBUS
RST:DFC
RST:MHD
RST:SBUS
```

Output Messages

DGN-DFC
DGN-MHD
RMV-DFC
RMV-MHD
RMV-SBUS
RST-DFC
RST-MHD
RST-SBUS

ID . . . . . REPT-DFCI-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT DFCI` *a*
`AAAAAAAA BBBBBBBB CCCCCCCC DDDDDDDD EEEEFFGG HHHHHHHH IIIIIIII JJJJJJJJ`
`KKKKKKKK KKKKKKKK KKKKKKKK KKKKKKKK LLLLLLLL LLLLLLLL LLLLLLLL LLLLLLLL`

[2] `REPT DFCI` *a* `DATA` *b-c* `X'` *d*

2. REASON FOR OUTPUT

To print the enhanced information report (EIR) provided by the small computer system interface (SCSI) disk file controller (DFC).

Format 1 prints when the short form of the EIR is requested.

Format 2 prints when the long form of the EIR is requested.

3. VARIABLE FIELD DEFINITIONS

a = Unit number.

b = Segment number of information report.

c = Number of segments of information report.

d = Sequence number for this report.

Format 1 (EIR short form):

A — Command completion word.

The completion word is eight hexadecimal digits of the form aabbcdee.

aa = Completion code (see DFC Appendix B, DFC-APPB, Tables 1 and 2).

bb = Number of blocks read / written on short failure of read / write command.

c = Bus / Device ID number of the device associated with the activity identified by this response. If the activity references the Host Adapter (HA), this field is not used by the DFC.

d = Autonomous completion code (see DFC Appendix B, DFC-APPB, Table 3).

NOTE: d is only valid when ee is zero.

ee = Job ID number.

B — Device status word (see DFC Appendix C, DFC-APPC).

C — Operational firmware version (see DFC Appendix O, DFC-APPO).

D — Pumpcode version (see DFC Appendix O, DFC-APPO).

E — Enhanced completion code (see DFC Appendix B, DFC-APPB, Table 4).

F — Target controller command status byte.

0x00 — Good.
0x02 — Check condition.
0x04 — Condition met.
0x08 — Busy.
0x10 — Intermediate.
0x14 — Intermediate - condition met.
0x18 — Reservation conflict.
0x22 — Command terminated.
0x28 — Queue full.
0xFF — Status not available.

G — Firmware/Driver communications register (see DFC Appendix B, DFC-APPB, Table 5).

H — HA status register (see DFC Appendix N, DFC-APPN).

I — BIC status register (see DFC Appendix F, DFC-APPF).

J — Previous command received from the 3B (see DFC Appendix M, DFC-APPM). This information may not be useful when pumpcode is running.

K — Failing command received from the 3B (see DFC Appendix M, DFC-APPM).

L — Extended sense data (see DFC Appendix J, DFC-APPJ).

Format 2 (EIR long form):

Where *b* = 1, this printout follows:

```
AAAAAAAA BBBBBBBB CCCCCCCC DDDDDDDD EEEEFGHH IIIIIIII JJJJJJJJ KKKKKKKK
LLLLLLLL LLLLLLLL LLLLLLLL LLLLLLLL MMMMMMMM MMMMMMMM MMMMMMMM MMMMMMMM
```

A — Command completion word:

The completion word is eight hexadecimal digits of the form aabbcdee.

aa = Completion code (see DFC Appendix B, DFC-APPB, Tables 1 and 2).

bb = Number of blocks read/written on short failure of read/write command.

c = Bus/Device ID number of the device associated with the activity identified by this response. If the activity references the HA, this field is not used by the DFC.

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d = Autonomous completion code (see DFC Appendix B, DFC-APPB, Table 3).

NOTE: d is only valid when ee is zero.

ee = Job ID number.

B — Device status word (see DFC Appendix C, DFC-APPC).

C — Operational firmware version (see DFC Appendix O, DFC-APPO).

D — Pumpcode version (see DFC Appendix O, DFC-APPO).

E — Enhanced completion code (see DFC Appendix B, DFC-APPB, Table 4).

F — SCSI bus A enabled status and HA ID number. It is comprised of 4 bits of the form abbb.

a = SCSI bus enabled status.

0 — Bus is not enabled.
1 — Bus is enabled.

bbb = HA ID number.

G — SCSI bus B enabled status and HA ID number. It is comprised of 4 bits of the form abbb.

a = SCSI bus enabled status.

0 — Bus is not enabled.
1 — Bus is enabled.

bbb = HA ID number.

H — Firmware/Driver communications register (see DFC Appendix B, DFC-APPB, Table 5).

I — HA status register (see DFC Appendix N, DFC-APPN).

J — BIC status register (see DFC Appendix F, DFC-APPF).

K — Routine exerciser failing block number.

L — Failing command received from the 3B (see DFC Appendix M, DFC-APPM).

M — Previous command received from the 3B (see DFC Appendix M, DFC-APPM). This information may not be useful when pumpcode is running.

Where *b* = 2, this printout follows:

```
AABBCCDD EEEEEEEE FFFFFFFF GGGGGGGG GGGGGGGG GGGGGGGG GGGGGGGG HHHHHHHH
HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH
```

A — Device number.

B — Other device number.

C — Job type pending (see DFC Appendix B, DFC-APPB, Table 6).

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D — Device maintenance mode.

0 — Device is ONLINE.
1 — Device is OFFLINE.

E — Last logical block address of the device.

F — Target controller's logical block size in bytes.

G — Extended sense data (see DFC Appendix J, DFC-APPJ).

H — Inquiry data (see DFC Appendix L, DFC-APPL).

Where *b* = 3, this printout follows:

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA BBBBBBBB BBBBBBBB BBBBBBBB CCCCCCCC
```

A — First SCSI job block (SJB) structure (see DFC Appendix K, DFC-APPK).

B — SCSI command (see **NOTES** at the end of this section).

C — Retry count.

Where *b* = 4, this printout follows:

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA BBBBBBBB BBBBBBBB BBBBBBBB CCCCCCCC
```

A — Second SJB structure (see DFC Appendix K, DFC-APPK).

B — Second SCSI command (see **NOTES** at the end of this section).

C — Location of the routine exerciser on the device in logical blocks.

Where *b* = 5, this printout follows:

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA BBBBBBBB BBBBBBBB BBBBBBBB BBBBBBBB
```

A — Third SJB structure (see DFC Appendix K, DFC-APPK).

B — Command received from the 3B (see DFC Appendix M, DFC-APPM).

Where *b* = 6, this printout follows:

```
AAAAAAAA BBBBBBBB CCCCCCCC DDDDDDDD EEEEEEEE EEEEEEEE FFFFFFFF FFFFFFFF
FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF GGGGGGGG GGGGGGGG GGGGGGGG
```

A — Device busy condition at time of job termination.

0 — Device was not in a busy condition.
1 — Device was in a busy condition.

B — Timer ID associated with busy condition.

C — Host Adapter data buffer address.

D — Slow job function pointer.

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E — Sequential Access Device record information.

F — Data transfer control information.

G — Reserved for future use.

Where *b* = 7, this printout follows:

```
AABBCCDD EEEEEEEE FFFFFFFF GGGGGGGG GGGGGGGG GGGGGGGG GGGGGGGG HHHHHHHH
HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH HHHHHHHH
```

A — Device number.

B — Other device number.

C — Job type pending (see DFC Appendix B, DFC-APPB, Table 6).

D — Device maintenance mode.

0 — Device is ONLINE.
1 — Device is OFFLINE.

E — Last logical block address of the device.

F — Target controller's logical block size in bytes.

G — Extended sense data (see DFC Appendix J, DFC-APPJ).

H — Inquiry data (see DFC Appendix L, DFC-APPL).

Where *b* = 8, this printout follows:

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA BBBBBBBB BBBBBBBB BBBBBBBB CCCCCCCC
```

A — First SJB structure (see DFC Appendix K, DFC-APPK).

B — SCSI command (see **NOTES** at the end of this section).

C — Retry count.

Where *b* = 9, this printout follows:

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA BBBBBBBB BBBBBBBB BBBBBBBB CCCCCCCC
```

A — Second SJB structure (see DFC Appendix K, DFC-APPK).

B — Second SCSI command (see **NOTES** at the end of this section).

C — Location of the routine exerciser on the device in logical blocks.

Where *b* = 10, this printout follows:

```
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA BBBBBBBB BBBBBBBB BBBBBBBB BBBBBBBB
```

A — Third SJB structure (see DFC Appendix K, DFC-APPK).

B — Command received from the 3B (see DFC Appendix M, DFC-APPM).

Where *b* = 11, this printout follows:

```
AAAAAAAA BBBBBBBB CCCCCCCC DDDDDDDD EEEEEEEE EEEEEEEE FFFFFFFF FFFFFFFF
FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF GGGGGGGG GGGGGGGG GGGGGGGG
```

A — Device busy condition at time of job termination.

0 — Device was not in a busy condition.
1 — Device was in a busy condition.

B — Timer ID associated with busy condition.

C — Host Adapter data buffer address.

D — Slow job function pointer.

E — Sequential Access Device record information.

F — Data transfer control information.

G — Reserved for future use.

NOTES: There are normally 1, 6, or 11 segments of data output.

The task entry data does not contain any information that is helpful to a user. The information is useful to the developer/maintainer of the firmware/pumpcode. The information may be useful to the Technical Assistance centers.

The SCSI commands do not contain any information that is helpful to a user. The information is useful to the developer/maintainer of the firmware/pumpcode. The information may be useful to the Technical Assistance centers. The detailed explanation of this data is in the *LUCENT Small Computer System Interface (SCSI) Definition.*

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4. ACTION TO BE TAKEN

An information report provides additional information about a condition that could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages that provide useful data may be output.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Output Appendixes

DFC-APPB
DFC-APPC
DFC-APPF
DFC-APPJ
DFC-APPK
DFC-APPL
DFC-APPM
DFC-APPN
DFC-APPO

Input Messages

DGN:DFC
DGN:MHD
DGN:MT
RMV:DFC
RMV:MHD
RMV:MT
RMV:SBUS
RST:DFC
RST:MHD
RST:MT
RST:SBUS

Output Messages

DGN-DFC
DGN-MHD
DGN-MT
RMV-DFC
RMV-MHD
RMV-MT
RMV-SBUS
RST-DFC
RST-MHD
RST-MT
RST-SBUS

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ID . . . . . REPT-DFRMVRST
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT DFRMVRST ERROR a b
```

2. REASON FOR OUTPUT

To report an error condition in the DFRMVRST user process.

3. VARIABLE FIELD DEFINITIONS

a = Function call failure type:

1 — Message enable.
2 — Receive wait.
3 — Send to port.

b = System error code. See System Error Codes Output Appendix, SYSERR-APP.

4. ACTION TO BE TAKEN

An operating system function call is failing. Obtain technical assistance to clear the trouble.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key
There is an OMDB key of 58.

Output Appendix
SYSERR-APP

Input Messages
DGN:DFC
DGN:MHD
RMV:DFC
RMV:MHD
RST:DFC
RST:MHD

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Output Messages

DGN-DFC
DGN-MHD
RMV-DFC
RMV-MHD
RST-DFC
RST-MHD

ID . . . . . REPT-DGN-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT DGN CU ERROR a
 DRIVER DATA
 X = b ERRNO = c IL = d IR = e
 MCH STATUS
 ONL = f OFL = g
 PHASE DATA
 T = h A = i S = j I = k

OFFLINE CU CRITICAL REGISTERS
[WARNING: READ PROBLEMS - SOME REGISTERS MAY BE INCORRECT ]
 MCB  = l MCS = m BGB  = n MDH  = o
 MDL  = p MSA = q MSA1 = r MSA2 = s
 MSA3 = t PSW = u HSR  = v ER   = w
 SSR  = x DST = y SRC  = z BGR  = aa
 PPR  = bb ONE = cc CDR  = dd IM   = ee
 IS   = ff RTC = gg TMR  = hh SAR  = ii
 PA   = jj SCR = kk ATB  = ll SDR  = mm
 SIR  = nn IB  = oo HM   = pp G0   = qq
 G1   = qq G2  = qq G3   = qq G4   = qq
 G5   = qq G6  = qq G7   = qq G8   = qq
 G9   = qq G10 = qq G11  = qq G12  = qq
 G13  = qq G14 = qq G15  = qq F0   = rr
 F1   = rr F2  = rr F3   = rr F4   = rr
 F5   = rr F6  = rr F7   = rr F8   = rr
 F9   = rr F10 = rr F11  = rr F12  = rr
 F13  = rr F14 = rr F15  = rr T0   = s
 T1   = ss T2  = ss T3   = ss T4   = ss
 T5   = ss T6  = ss T7   = ss T8   = ss
 T9   = ss T10 = ss T11  = ss T12  = ss
 T13  = ss T14 = ss T15  = ss
ONLINE CU CRITICAL REGISTERS
 PSW  = u HSR = v SSR  = x ER   = w
[WARNING: THE OFFLINE CU HAS INITIALIZED ]
```

2. REASON FOR OUTPUT

To report an error encountered by the control unit (CU) diagnostic programs. Critical registers are displayed for error codes marked.

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If the message `WARNING: READ PROBLEMS - SOME REGISTERS MAY BE INCORRECT` appears, maintenance channel failures were encountered while reading some of the offline CU registers. Although the registers involved are not indicated, registers containing all zeroes are particularly suspect.

If the message `WARNING: THE OFFLINE CU HAS INITIALIZED` appears, the ten temporary registers indicated under the variable *s* field will contain a snapshot taken at the time of the reset (maintenance reset function).

3. VARIABLE FIELD DEFINITIONS

a = Error code, in hexadecimal notation. See the table description in this message.

b = Index into PCP table.

c = Error number returned from process control process maintenance driver (PCPMD). See System Error Codes Output Appendix, `SYSERR-APP`.

d = Left half of instruction to PCPMD, in hexadecimal notation.

e = Right half of instruction to PCPMD, in hexadecimal notation.

f = Online maintenance channel status, in hexadecimal notation.

g = Offline maintenance channel status, in hexadecimal notation.

h = Last test executed.

i = Data table address.

j = Data table statement number.

k = Task routine index.

l = Maintenance channel buffer.

m = Maintenance channel status.

n = Bidirectional gating bus.

o = Microstore data register high half.

p = Microstore data register low half.

q = Microstore address register.

r = Microstore address stack first entry.

s = Microstore address stack second entry.

t = Microstore address stack third entry.

u = Processor status word.

v = Hardware status register.

w = Error register.

x = System status register.

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y = Destination bus.

z = Source bus.

aa = Bidirectional gating register.

bb = Pulse point register.

cc = Ones register.

dd = Channel data register.

ee = Interrupt mask.

ff = Interrupt source register.

gg = Real time counter.

hh = Timers register.

ii = Store address register.

jj = Present address register.

kk = Store control register.

ll = Address translation buffer.

mm = Store data register.

nn = Store instruction register.

oo = Instruction buffer.

pp = Halfword multiplexor.

qq = General registers (0-15).

rr = Firmware registers (0-15).

ss = Temporary registers (0-15):

`T0` — Store address register.
`T1` — System status register.
`T2` — Processor status word.
`T3` — Store control register.
`T4` — Error register.
`T5` — Pulse point register.
`T6` — Hardware status register.
`T7` — Store data register.
`T10` — Real time counter.
`T11` — Timers register.

4. ACTION TO BE TAKEN

An explanation of the error encountered and the appropriate action to be taken are shown in the following table. Critical registers are displayed for error codes marked with an asterisk (*).

Table 1. Error Codes

a =	Explanation	Action to be Taken
41	The test count specified at the end of the phase does not agree with number of tests actually executed.	Either an errant transfer was taken during the execution of the phase or the phase data table has been mutilated. Rerun the phase. If the problem remains, the data table file may be corrupted; seek technical assistance.
*42	Offline diagnostic microcode timed out.	A specified time limit is set for running microcode to prevent infinite loops. Problems could be due to the microstore not being loaded properly, an offline maintenance reset function (MRF) occurred, or the microcode got stuck in an infinite loop. Usually a retry will correct any microcode timeout problem. If the central control (CC) diagnostic was not run before the abort occurred, running it might find the problem.
*43	There is an error in a setarg command at the indicated data table location in the phase where the abort occurred.	The number of arguments passed to the offline main store routine does not match the number declared in the setarg command. Rerun the phase. If the problem remains, the indicated data table file may be corrupted; seek technical assistance.
*44	Offline main store code execution timed out.	The calling phase sets a specified time limit in which this offline code should execute. Problems can occur if the halt bit was not set when the code finished executing, or if hardware problems prevent running offline code, or a MRF occurred in the offline CU. If the CC and main store diagnostic was not run previous to where the abort occurred, running them might find the problem. If any other offline main store code ran successfully, the offline code file on the disk might be bad. Rerun the phase. If the problem remains, the indicated data table file may be corrupted; seek technical assistance.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
*45	The verify failed after a pump to the offline microstore by the mcexec data table command.	After the microcode pump is completed, the code is pumped back to the online for verification. This error means the returned file did not match the file sent. Problem could be in microstore or in the communication between online and offline processors. If the CC diagnostic was not run previous to where the abort occurred, running it might find the problem.
46	The object file specified in an excofl data table command could not be opened for reading or it is not the proper type of file for running offline main store code. Also, file I/O function (`lseek`) might not have been able to seek to the desired location in the object file.	This can be due to mutilation of the specified object file. Rerun the phase. If the problem remains, the indicated object file may be corrupted; seek technical assistance.
*47	Offline main store object file could not be copied from online processor to offline processor.	The maintenance driver library function pcpyto is used to do the copy. The online or offline maintenance channel could be faulty. The PCPMD error code, which appears under the heading DRIVER DATA, could help determine the cause of the problem.
*48	Could not set stack register or argument register in offline CU for offline main store execution.	Failure to connect to the equipment configuration database (ECD), unit control block (UCB) record ID points to the online control unit (CU), or CU was not OUT OF SERVICE. Make sure the maintenance request is for the offline CU and that the offline CU is out-of-service. If this is not the problem, use the RCV command to examine the ECD paying particular attention to the UCB for the unit being diagnosed.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
*49	Cannot setup stack argument count and program counter or address pointer in offline main store.	Some of the things to look for are as follows: The offline CU was not OUT OF SERVICE, the pointer to the UCB is not valid or does not point to a CU UCB in the ECD database, the UCB record ID was pointing to the online processor, or the maintenance channel did not execute the expected number of bytes. Make sure the maintenance request is for the offline CU and that the offline CU is out-of-service. If this is not the problem, use the RCV command to examine the ECD paying particular attention to the UCB for the unit being diagnosed. Also, run CC diagnostic phases 1 through 4 to verify communication between the online and offline maintenance channels.
*4A	The test routine loaded in the offline main store did not execute properly.	The PCPMD function pexecothr is used to start execution. The pointer passed to it from cudiagc was not recognized as a valid pointer or did not point to a CU UCB in the ECD. Retry the maintenance request. If the problem remains, use the RCV command to examine the ECD paying particular attention to the UCB for the unit being diagnosed. The file may be corrupted; seek technical assistance.
*4B	The test routine loaded in the online microstore and/or mainstore did not execute properly.	The PCPMD function pexeconl is used to start online execution. Retry the maintenance request, and if the problem remains, use the number printed in ERRNO to look up the source of the problem in the System Error Codes Output Appendix, SYSERR-APP.
4C	The equipment configuration database (ECD) manager could not be opened for a special unit control block request.	Verify that file /dev/ecd exists.
4D	Illegal helper unit requested.	Not used.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
4E	The member version or equipage fields of the ECD for the main store are incorrect.	Use the RCV command to examine the UCD for the mainstore being diagnosed. Verify that there is 1 equipage bit set (starting at bit 0) for each memory array equipped. Also, verify that the low order nibble (4-bits) of the MV field has one of the following values: (1 - TN07; 3 - TN14; 4 - TN28; 5 - TN56; 6 - TN2012) and bit 5 of the MV field should be: (0 - UN39, UN40; 1 - UN59).
4F	Could not setup UCB for maintenance driver access. Appears only when the host is a UNIX® RTR machine.	Function psetup failed to pass a pointer to the top of the UCB to PCPMD. Use RCV to verify ECD is consistent and up to date for the control unit under test.
50	An invalid parameter was input when running diagnostics using the interactive mode of operation.	The interactive mode is used for main store phase 95. Three types of input errors could cause this problem. (1) The starting address is larger than the ending address. (2) The starting address is larger than the highest possible address. (3) The refresh rate is invalid. The valid refresh rates are from 2 to 16 milliseconds in steps of 2 and 32 to 60 milliseconds in steps of 4. See EX command in the *Input Message Manual.*
52	The special ECDMAN function (ursvucb) could not reserve the specified UCB.	Check that the u_admin field of the UCB is *1* (not reserved). If it is reserved, see the REPT-MIRA output message (reason 2). If it is not reserved, rerunning the diagnostic should clear the problem.
53	Cannot release a previously reserved unit control block (UCB) via the special ECDMAN function urelucb.	Display the contents of the UCB for the unit being diagnosed. If the u_admin variable is a *0*, the UCB is still reserved. See the REPT-MIRA output message (reason 2). If it is not reserved, rerunning the diagnostic should clear the problem.
54	Cannot find unit control block (UCB) for helper unit.	The getucb function could not find the UCB for helper unit. Verify that the helper unit was specified correctly in the input command. Use RCV to verify that helper unit UCB exists and is correct. If the problem remains, the data table file may be corrupted; seek technical assistance.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
56	Illegal instruction signal received from operating system.	Rerun the diagnostic phase which caused this error. If the problem remains, the data table file for the indicated phase or the file /diag/dgnc/cudiagc may be corrupted; seek technical assistance.
57	Bus error signal received from operating system.	Rerun the diagnostic phase which caused this error. If the problem remains, the data table file for the indicated phase or the file /diag/dgnc/cudiagc may be corrupted; seek technical assistance.
58	Segment violation signal received from operating system.	Rerun the diagnostic phase which caused this error. If the problem remains, the data table file for the indicated phase or the file /diag/dgnc/cudiagc may be corrupted; seek technical assistance.
59	Error on system call signal received from operating system.	Rerun the diagnostic phase which caused this error. If the problem remains, the data table file for the indicated phase or the file /diag/dgnc/cudiagc may be corrupted; seek technical assistance.
5A	The ECD Manager failed to fill in the special device file path name.	Use the RCV command to verify that the special device file exist in the LOGDEV.
5B	Could not open the special device file used to talk with the hardware.	The ECD manager must be reinitialized. This ECD function is used only in peripheral (IOP or DFC) units where the unique field in the UCB is ON. Other units may still be diagnosed in the face of this problem.
5C	The ECD manager failed to release a special device file used for communication with the peripheral hardware.	If the special device file was already released, a retry of the request should correct the problem. A second abort means the ECD manager has an internal software problem that can only be corrected by restoring the ECD manager.
61	The control unit diagnostic controller failed to open processor control process maintenance driver (PCPMD).	Verify that file /dev/cu exists.
*62	A write to the diagnostic driver (PCPMD) has failed.	The function endblk in cudiagc sends a buffer of maintenance channel commands to the offline maintenance channel via the PCPMD function pexmch. pexmch has failed. The PCPMD error

Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
		code, that appears under the heading DRIVER DATA, will indicate the cause of the problem. Run CC diagnostic phases 1 through 4 to verify operation of the maintenance channel.
63	This code is an indication to the diagnostic monitor that a phase of the diagnostic completed normally.	This is not an error code and will not cause an abort.
64	Could not open data table file or micro code program file.	Verify the existence of the file being opened. If the statement (S) is zero, a data table file could not be opened. The name of the file (relative to directory `/diag/dgnc`) is specified in the (P+1)th line in the file `/diag/dpt/cu/<file>` where P = the phase that aborted, file is selected by the dgn line(s) in /diag/util/cu/<unit> and possibly the "mv" field of the UCB, and unit = the name of the unit being diagnosed. If the index (I) is 17 or 2a, the name of the file is `/diag/offcode/mic/<file>.u` where file = the file name specified at statement S in the listing of the phase which aborted.
65	The diagnostic control buffer could not be shared by cudiagc from the diagnostic monitor.	The `connseg` system call has failed. The ERRNO item will indicated the system error reason.
66	The diagnostic control program has encountered an invalid index or argument in a data table.	Rerun the phase. If the problem remains, the data table file for the indicated phase may be corrupted; seek technical assistance.
67	The diagnostic control program was spawned by the diagnostic monitor with the wrong number of arguments.	Rerun the diagnostic.
68	The diagnostic control program could not setup the spooler control string for buffered output to the TTY from which the diagnostic request was input.	Rerun the diagnostic. If the problem remains, reinitialize the craft interface (key 15 on the emergency action interface (EAI) page at the maintenance terminal).

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
69	The histogram format print file for the main store diagnostic failed to be opened.	This file should be located in the directory /diag/dgnc under the name dgnff. Verify that this file does exist and has read permission.
6A	An illegal option was input while running diagnostics in the interactive mode (that is, EX command).	Verify that the input command syntax is correct. See the EX command in the *Input Message Manual*.
*6B	Offline register could not be read back to online processor.	This is probably due to a maintenance channel error. Rerun the diagnostic. If the problem remains, run CC diagnostic phases 1 through 4 to test the maintenance channel.
6C	Cannot open file for trouble location process.	The problem could be that there is not enough file space in /tmp. Rerun the diagnostic.
*6D	The offline control unit (CU) has reset via the maintenance reset function (MRF).	Examine the error register to determine if a hardware error occurred and, if so, its cause. The MSA, MSA1, MSA2 and MSA3 registers form a push-down stack with MSA at the top. The highest register that does not contain 0 or 2b is the microstore address being executed when the MRF occurred. The program address (PA) contains the mainstore address being executed when the MRF occurred.
6E	The datatbl file contains instructions which are not supported on this hardware platform.	Verify that the umodel field in the unit's top-level UCB record is correct. Otherwise, the datatbl file is incorrect or the wrong datatbl file is being invoked. Seek technical assistance to correct these problems.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
This message has OMDB keys of 34 and 36.

Output Appendix
SYSERR-APP

Input Message
DGN:CU

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Output Message
REPT-MIRA

ID . . . . . REPT-DGN-B
GENERIC . . . . . UNIX RTR R21.3 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT DGN CU ERROR a
DRIVER DATA
X = b ERRNO = c IL = d IR = e
MCH STATUS
ONL = f OFL = g
PHASE DATA
T = h A = i S = j I = k

OFFLINE CU CRITICAL REGISTERS
[WARNING: READ PROBLEMS - SOME REGISTERS MAY BE INCORRECT ]
MCB  = l MCS = m  BGB  = n  MDH  = o
MDL  = p  PSW = u  HSR  = v  ER   = w
SSR  = x  DST = y  SRC  = z  BGR  = aa
PPR  = bb ONE = cc CDR  = dd IM   = ee
IS   = ff RTC = gg TMR  = hh SAR  = ii
PA   = jj SCR = kk ATB  = ll SDR  = mm
SIR  = nn IB  = oo HM   = pp
G0   = qq G1   = qq G2  = qq G3   = qq
G4   = qq G5   = qq G6  = qq G7   = qq
G8   = qq G9   = qq G10 = qq G11  = qq
G12  = qq G13  = qq G14 = qq G15  = qq
F0   = rr F1   = rr F2  = rr F3   = rr
F4   = rr F5   = rr F6  = rr F7   = rr
F8   = rr F9   = rr F10 = rr F11  = rr
F12  = rr F13  = rr F14 = rr F15  = rr
T0   = ss T1   = ss T2  = ss T3   = ss
T4   = ss T5   = ss T6  = ss T7   = ss
T8   = ss T9   = ss T10 = ss T11  = ss
T12  = ss T13  = ss T14 = ss T15  = ss

MSA  = q  MSA1 = r  MSA2 = r MSA3 = r
[MSA4 = r  MSA5 = r  MSA6 = r MSA7 = r
MSA8 = r

MCMD  = tt MSTAT = tt MADD = tt MER  = tt
DCMD  = tt DSTAT = tt MDAT = tt MMR  = tt
BNK0  = tt  BNK1 = tt BNK1 = tt BNK3 = tt
BNK4  = tt  BNK5 = tt BNK6 = tt BNK7 = tt
CRA   = uu  CRB  = uu CRC  = uu CRD  = uu
CRE   = uu  CRG  = uu CTAG = uu CST  = uu]
```

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```
ONLINE CU CRITICAL REGISTERS
PSW  = u HSR = v SSR  = x ER   = w
[WARNING: THE OFFLINE CU HAS INITIALIZED ]
```

2. REASON FOR OUTPUT

To report an error encountered by the control unit (CU) diagnostic programs. Critical registers are displayed for error codes marked.

If the message WARNING: READ PROBLEMS - SOME REGISTERS MAY BE INCORRECT appears, maintenance channel failures were encountered while reading some of the offline CU registers. Although the registers involved are not indicated, registers containing all zeroes are particularly suspect.

If the message WARNING: THE OFFLINE CU HAS INITIALIZED appears, the ten temporary registers indicated under the variable *s* field will contain a snapshot taken at the time of the reset (maintenance reset function).

3. VARIABLE FIELD DEFINITIONS

a = Error code, in hexadecimal notation. See the table description in this message.

b = Index into PCP table.

c = Error number returned from process control process maintenance driver (PCPMD). See System Error Codes Output Appendix, SYSERR-APP.

d = Left half of instruction to PCPMD, in hexadecimal notation.

e = Right half of instruction to PCPMD, in hexadecimal notation.

f = Online maintenance channel status, in hexadecimal notation.

g = Offline maintenance channel status, in hexadecimal notation.

h = Last test executed.

i = Data table address.

j = Data table statement number.

k = Task routine index.

l = Maintenance channel buffer.

m = Maintenance channel status.

n = Bidirectional gating bus.

o = Microstore data register high half.

p = Microstore data register low half.

q = Microstore address register.

r = Microstore address stack entry.

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u = Processor status word.

v = Hardware status register.

w = Error register.

x = System status register.

y = Destination bus.

z = Source bus.

aa = Bidirectional gating register.

bb = Pulse point register.

cc = Ones register.

dd = Channel data register.

ee = Interrupt mask.

ff = Interrupt source register.

gg = Real time counter.

hh = Timers register.

ii = Store address register.

jj = Present address register.

kk = Store control register.

ll = Address translation buffer.

mm = Store data register.

nn = Store instruction register.

oo = Instruction buffer.

pp = Halfword multiplexor.

qq = General registers (0-15).

rr = Firmware registers (0-15).

ss = Temporary registers (0-15):

`T0` — Store address register.
`T1` — System status register.
`T2` — Processor status word.
`T3` — Store control register.
`T4` — Error register.
`T5` — Pulse point register.
`T6` — Hardware status register.
`T7` — Store data register.
`T10` — Real time counter.
`T11` — Timers register.

tt = Main Memory registers:

MCMD — MCERT MC Command Register
MSTAT — MCERT MC Status Register
MADD — MCERT MC Error Address Register
MER — MCERT MC Error Flags Register
DCMD — MCERT DP Command Register
DSTAT — MCERT DP Status Register
MDAT — MCERT DP Error Data Register
MMR — Main Memory Register
BNK0 — MCERT MC Bank Address Register 0
BNK1 — MCERT MC Bank Address Register 1
BNK2 — MCERT MC Bank Address Register 2
BNK3 — MCERT MC Bank Address Register 3
BNK4 — MCERT MC Bank Address Register 4
BNK5 — MCERT MC Bank Address Register 5
BNK6 — MCERT MC Bank Address Register 6
BNK7 — MCERT MC Bank Address Register 7

uu = Cache registers:

CRA — Cache Error Register A
CRB — Cache Error Register B
CRC — Cache Error Register C
CRD — Cache Error Register D
CRE — Cache Error Register E
CRG — Cache Status Register G
CTAG — Cache Tag Trap Register
CST — Cache Status Word

4. ACTION TO BE TAKEN

An explanation of the error encountered and the appropriate action to be taken are shown in the following table. Critical registers are displayed for error codes marked with an asterisk (*).

Table 1. Error Codes

a =	Explanation	Action to be Taken
41	The test count specified at the end of the phase does not agree with number of tests actually executed.	Either an errant transfer was taken during the execution of the phase or the phase data table has been mutilated. Rerun the phase. If the problem remains, the data table file may be corrupted; seek technical assistance.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
*42	Offline diagnostic microcode timed out.	A specified time limit is set for running microcode to prevent infinite loops. Problems could be due to the microstore not being loaded properly, an offline maintenance reset function (MRF) occurred, or the microcode got stuck in an infinite loop. Usually a retry will correct any microcode timeout problem. If the central control (CC) diagnostic was not run before the abort occurred, running it might find the problem.
*43	There is an error in a setarg command at the indicated data table location in the phase where the abort occurred.	The number of arguments passed to the offline main store routine does not match the number declared in the setarg command. Rerun the phase. If the problem remains, the indicated data table file may be corrupted; seek technical assistance.
*44	Offline main store code execution timed out.	The calling phase sets a specified time limit in which this offline code should execute. Problems can occur if the halt bit was not set when the code finished executing, or if hardware problems prevent running offline code, or a MRF occurred in the offline CU. If the CC and main store diagnostic was not run previous to where the abort occurred, running them might find the problem. If any other offline main store code ran successfully, the offline code file on the disk might be bad. Rerun the phase. If the problem remains, the indicated data table file may be corrupted; seek technical assistance.
*45	The verify failed after a pump to the offline microstore by the mcexec data table command.	After the microcode pump is completed, the code is pumped back to the online for verification. This error means the returned file did not match the file sent. Problem could be in microstore or in the communication between online and offline processors. If the CC diagnostic was not run previous to where the abort occurred, running it might find the problem.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
46	The object file specified in an excofl data table command could not be opened for reading or it is not the proper type of file for running offline main store code. Also, file I/O function (`lseek`) might not have been able to seek to the desired location in the object file.	This can be due to mutilation of the specified object file. Rerun the phase. If the problem remains, the indicated object file may be corrupted; seek technical assistance.
*47	Offline main store object file could not be copied from online processor to offline processor.	The maintenance driver library function pcpyto is used to do the copy. The online or offline maintenance channel could be faulty. The PCPMD error code, which appears under the heading DRIVER DATA, could help determine the cause of the problem.
*48	Could not set stack register or argument register in offline CU for offline main store execution.	Failure to connect to the equipment configuration database (ECD), unit control block (UCB) record ID points to the online control unit (CU), or CU was not OUT OF SERVICE. Make sure the maintenance request is for the offline CU and that the offline CU is out-of-service. If this is not the problem, use the RCV command to examine the ECD paying particular attention to the UCB for the unit being diagnosed.
*49	Cannot setup stack argument count and program counter or address pointer in offline main store.	Some of the things to look for are as follows: The offline CU was not OUT OF SERVICE, the pointer to the UCB is not valid or does not point to a CU UCB in the ECD database, the UCB record ID was pointing to the online processor, or the maintenance channel did not execute the expected number of bytes. Make sure the maintenance request is for the offline CU and that the offline CU is out-of-service. If this is not the problem, use the RCV command to examine the ECD paying particular attention to the UCB for the unit being diagnosed. Also, run CC diagnostic phases 1 through 4 to verify communication between the online and offline maintenance channels.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
*4A	The test routine loaded in the offline main store did not execute properly.	The PCPMD function pexecothr is used to start execution. The pointer passed to it from cudiagc was not recognized as a valid pointer or did not point to a CU UCB in the ECD. Retry the maintenance request. If the problem remains, use the RCV command to examine the ECD paying particular attention to the UCB for the unit being diagnosed. The file may be corrupted; seek technical assistance.
*4B	The test routine loaded in the online microstore and/or mainstore did not execute properly.	The PCPMD function pexeconl is used to start online execution. Retry the maintenance request, and if the problem remains, use the number printed in ERRNO to look up the source of the problem in the System Error Codes Output Appendix, SYSERR-APP.
4C	The equipment configuration database (ECD) manager could not be opened for a special unit control block request.	Verify that file /dev/ecd exists.
4D	Illegal helper unit requested.	Not used.
4E	The member version or equipage fields of the ECD for the main store are incorrect.	Use the RCV command to examine the UCD for the mainstore being diagnosed. Verify that there is 1 equipage bit set (starting at bit 0) for each memory array equipped. Also, verify that the low order nibble (4-bits) of the MV field has one of the following values: (1 - TN07; 3 - TN14; 4 - TN28; 5 - TN56; 6 - TN2012) and bit 5 of the MV field should be: (0 - UN39, UN40; 1 - UN59).
4F	Could not setup UCB for maintenance driver access. Appears only when the host is a UNIX® RTR machine.	Function psetup failed to pass a pointer to the top of the UCB to PCPMD. Use RCV to verify ECD is consistent and up to date for the control unit under test.

Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
50	An invalid parameter was input when running diagnostics using the interactive mode of operation.	The interactive mode is used for main store phase 95. Three types of input errors could cause this problem. (1) The starting address is larger than the ending address. (2) The starting address is larger than the highest possible address. (3) The refresh rate is invalid. The valid refresh rates are from 2 to 16 milliseconds in steps of 2 and 32 to 60 milliseconds in steps of 4. See EX command in the Input Message Manual.
52	The special ECDMAN function (ursvucb) could not reserve the specified UCB.	Check that the u_admin field of the UCB is *1* (not reserved). If it is reserved, see the REPT-MIRA output message (reason 2). If it is not reserved, rerunning the diagnostic should clear the problem.
53	Cannot release a previously reserved unit control block (UCB) via the special ECDMAN function urelucb.	Display the contents of the UCB for the unit being diagnosed. If the u_admin variable is a *0*, the UCB is still reserved. See the REPT-MIRA output message (reason 2). If it is not reserved, rerunning the diagnostic should clear the problem.
54	Cannot find unit control block (UCB) for helper unit.	The getucb function could not find the UCB for helper unit. Verify that the helper unit was specified correctly in the input command. Use RCV to verify that helper unit UCB exists and is correct. If the problem remains, the data table file may be corrupted; seek technical assistance.
56	Illegal instruction signal received from operating system.	Rerun the diagnostic phase which caused this error. If the problem remains, the data table file for the indicated phase or the file /diag/dgnc/cudiagc may be corrupted; seek technical assistance.
57	Bus error signal received from operating system.	Rerun the diagnostic phase which caused this error. If the problem remains, the data table file for the indicated phase or the file /diag/dgnc/cudiagc may be corrupted; seek technical assistance.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
58	Segment violation signal received from operating system.	Rerun the diagnostic phase which caused this error. If the problem remains, the data table file for the indicated phase or the file /diag/dgnc/cudiagc may be corrupted; seek technical assistance.
59	Error on system call signal received from operating system.	Rerun the diagnostic phase which caused this error. If the problem remains, the data table file for the indicated phase or the file /diag/dgnc/cudiagc may be corrupted; seek technical assistance.
5A	The ECD Manager failed to fill in the special device file path name.	Use the RCV command to verify that the special device file exist in the LOGDEV.
5B	Could not open the special device file used to talk with the hardware.	The ECD manager must be reinitialized. This ECD function is used only in peripheral (IOP or DFC) units where the unique field in the UCB is ON. Other units may still be diagnosed in the face of this problem.
5C	The ECD manager failed to release a special device file used for communication with the peripheral hardware.	If the special device file was already released, a retry of the request should correct the problem. A second abort means the ECD manager has an internal software problem that can only be corrected by restoring the ECD manager.
61	The control unit diagnostic controller failed to open processor control process maintenance driver (PCPMD).	Verify that file /dev/cu exists.
*62	A write to the diagnostic driver (PCPMD) has failed.	The function endblk in cudiagc sends a buffer of maintenance channel commands to the offline maintenance channel via the PCPMD function pexmch. pexmch has failed. The PCPMD error code, that appears under the heading DRIVER DATA, will indicate the cause of the problem. Run CC diagnostic phases 1 through 4 to verify operation of the maintenance channel.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
63	This code is an indication to the diagnostic monitor that a phase of the diagnostic completed normally.	This is not an error code and will not cause an abort.
64	Could not open data table file or micro code program file.	Verify the existence of the file being opened. If the statement (S) is zero, a data table file could not be opened. The name of the file (relative to directory `/diag/dgnc`) is specified in the (P+1)th line in the file `/diag/dpt/cu/<file>` where P = the phase that aborted, file is selected by the "dgn" line(s) in `/diag/util/cu/<unit>` and possibly the "mv" field of the UCB, and `unit` = the name of the unit being diagnosed. If the index (I) is 17 or 2a, the name of the file is `/diag/offcode/mic/<file>.u` where `file` = the file name specified at statement S in the listing of the phase which aborted.
65	The diagnostic control buffer could not be shared by cudiagc from the diagnostic monitor.	The `connseg` system call has failed. The ERRNO item will indicated the system error reason.
66	The diagnostic control program has encountered an invalid index or argument in a data table.	Rerun the phase. If the problem remains, the data table file for the indicated phase may be corrupted; seek technical assistance.
67	The diagnostic control program was spawned by the diagnostic monitor with the wrong number of arguments.	Rerun the diagnostic.
68	The diagnostic control program could not setup the spooler control string for buffered output to the TTY from which the diagnostic request was input.	Rerun the diagnostic. If the problem remains, reinitialize the craft interface (key 15 on the emergency action interface (EAI) page at the maintenance terminal).

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
69	The histogram format print file for the main store diagnostic failed to be opened.	This file should be located in the directory /diag/dgnc under the name dgnff. Verify that this file does exist and has read permission.
6A	An illegal option was input while running diagnostics in the interactive mode (that is, EX command).	Verify that the input command syntax is correct. See the EX command in the input message manual.
*6B	Offline register could not be read back to online processor.	This is probably due to a maintenance channel error. Rerun the diagnostic. If the problem remains, run CC diagnostic phases 1 through 4 to test the maintenance channel.
6C	Cannot open file for trouble location process.	The problem could be that there is not enough file space in /tmp. Rerun the diagnostic.
*6D	The offline control unit (CU) has reset via the maintenance reset function (MRF).	Examine the error register to determine if a hardware error occurred and, if so, its cause. The MSA, MSA1, MSA2 and MSA3 registers form a push-down stack with MSA at the top. The highest register that does not contain 0 or 2b is the microstore address being executed when the MRF occurred. The program address (PA) contains the mainstore address being executed when the MRF occurred.
6E	The datatbl file contains instructions which are not supported on this hardware platform.	Verify that the umodel field in the unit's top-level UCB record is correct. Otherwise, the datatbl file is incorrect or the wrong datatbl file is being invoked. Seek technical assistance to correct these problems.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
This message has OMDB keys of 34, 36, and 743.

Output Appendix
SYSERR-APP

Input Message
DGN:CU

Output Message
REPT-MIRA

ID . . . . . REPT-DGN-C
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT DGN CU ERROR a
DRIVER DATA
X = b ERRNO = c IL = d IR = e
MCH STATUS
ONL = f OFL = g
PHASE DATA
T = h A = i S = j I = k

OFFLINE CU CRITICAL REGISTERS
[WARNING: READ PROBLEMS - SOME REGISTERS MAY BE INCORRECT ]
MCB  = l MCS = m BGB  = n MDH  = o
MDL  = p PSW = u HSR  = v ER   = w
SSR  = x DST = y SRC  = z BGR  = aa
PPR  = bb ONE = cc CDR  = dd IM   = ee
IS   = ff RTC = gg TMR  = hh SAR  = ii
PA   = jj SCR = kk ATB  = ll SDR  = mm
SIR  = nn IB  = oo HM   = pp
G0   = qq G1   = qq G2  = qq G3   = qq
G4   = qq G5   = qq G6  = qq G7   = qq
G8   = qq G9   = qq G10 = qq G11  = qq
G12  = qq G13  = qq G14 = qq G15  = qq
F0   = rr F1   = rr F2  = rr F3   = rr
F4   = rr F5   = rr F6  = rr F7   = rr
F8   = rr F9   = rr F10 = rr F11  = rr
F12  = rr F13  = rr F14 = rr F15  = rr
T0   = ss T1   = ss T2  = ss T3   = ss
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MSA  = q MSA1 = r MSA2 = r MSA3 = r
[MSA4 = r MSA5 = r MSA6 = r MSA7 = r
MSA8 = r

MCMD  = tt MSTAT = tt MADD = tt MER  = tt
DCMD  = tt DSTAT = tt MDAT = tt MMR  = tt
BNK0  = tt  BNK1 = tt BNK1 = tt BNK3 = tt
BNK4  = tt  BNK5 = tt BNK6 = tt BNK7 = tt
CRA   = uu  CRB  = uu CRC  = uu CRD  = uu
CRE   = uu  CRF  = uu CRG  = uu]
```

```
ONLINE CU CRITICAL REGISTERS
PSW  = u HSR = v SSR  = x ER   = w
[WARNING: THE OFFLINE CU HAS INITIALIZED ]
```

2. REASON FOR OUTPUT

To report an error encountered by the control unit (CU) diagnostic programs. Critical registers are displayed for error codes marked.

If the message WARNING: READ PROBLEMS - SOME REGISTERS MAY BE INCORRECT appears, maintenance channel failures were encountered while reading some of the offline CU registers. Although the registers involved are not indicated, registers containing all zeroes are particularly suspect.

If the message WARNING: THE OFFLINE CU HAS INITIALIZED appears, the ten temporary registers indicated under the variable *s* field will contain a snapshot taken at the time of the reset (maintenance reset function).

3. VARIABLE FIELD DEFINITIONS

a = Error code, in hexadecimal notation. See the table description in this message.

b = Index into PCP table.

c = Error number returned from process control process maintenance driver (PCPMD). See System Error Codes Output Appendix, SYSERR-APP.

d = Left half of instruction to PCPMD, in hexadecimal notation.

e = Right half of instruction to PCPMD, in hexadecimal notation.

f = Online maintenance channel status, in hexadecimal notation.

g = Offline maintenance channel status, in hexadecimal notation.

h = Last test executed.

i = Data table address.

j = Data table statement number.

k = Task routine index.

l = Maintenance channel buffer.

m = Maintenance channel status.

n = Bidirectional gating bus.

o = Microstore data register high half.

p = Microstore data register low half.

q = Microstore address register.

r = Microstore address stack entry.

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u = Processor status word.

v = Hardware status register.

w = Error register.

x = System status register.

y = Destination bus.

z = Source bus.

aa = Bidirectional gating register.

bb = Pulse point register.

cc = Ones register.

dd = Channel data register.

ee = Interrupt mask.

ff = Interrupt source register.

gg = Real time counter.

hh = Timers register.

ii = Store address register.

jj = Present address register.

kk = Store control register.

ll = Address translation buffer.

mm = Store data register.

nn = Store instruction register.

oo = Instruction buffer.

pp = Halfword multiplexor.

qq = General registers (0-15).

rr = Firmware registers (0-15).

ss = Temporary registers (0-15):

`T0` — Store address register.
`T1` — System status register.
`T2` — Processor status word.
`T3` — Store control register.
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`T5` — Pulse point register.
`T6` — Hardware status register.
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MSTAT — MCERT MC Status Register
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DSTAT — MCERT DP Status Register
MDAT — MCERT DP Error Data Register
MMR — Main Memory Register
BNK0 — MCERT MC Bank Address Register 0
BNK1 — MCERT MC Bank Address Register 1
BNK2 — MCERT MC Bank Address Register 2
BNK3 — MCERT MC Bank Address Register 3
BNK4 — MCERT MC Bank Address Register 4
BNK5 — MCERT MC Bank Address Register 5
BNK6 — MCERT MC Bank Address Register 6
BNK7 — MCERT MC Bank Address Register 7

uu = Cache registers:

CRA — Cache Error Register A
CRB — Cache Error Register B
CRC — Cache Error Register C
CRD — Cache Error Register D
CRE — Cache Error Register E
CRF — Cache Error Register F
CRG — Cache Status Register G

4. ACTION TO BE TAKEN

An explanation of the error encountered and the appropriate action to be taken are shown in the following table. Critical registers are displayed for error codes marked with an asterisk (*).

Table 1. Error Codes

a =	Explanation	Action to be Taken
41	The test count specified at the end of the phase does not agree with number of tests actually executed.	Either an errant transfer was taken during the execution of the phase or the phase data table has been mutilated. Rerun the phase. If the problem remains, the data table file may be corrupted; seek technical assistance.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
*42	Offline diagnostic microcode timed out.	A specified time limit is set for running microcode to prevent infinite loops. Problems could be due to the microstore not being loaded properly, an offline maintenance reset function (MRF) occurred, or the microcode got stuck in an infinite loop. Usually a retry will correct any microcode timeout problem. If the central control (CC) diagnostic was not run before the abort occurred, running it might find the problem.
*43	There is an error in a setarg command at the indicated data table location in the phase where the abort occurred.	The number of arguments passed to the offline main store routine does not match the number declared in the setarg command. Rerun the phase. If the problem remains, the indicated data table file may be corrupted; seek technical assistance.
*44	Offline main store code execution timed out.	The calling phase sets a specified time limit in which this offline code should execute. Problems can occur if the halt bit was not set when the code finished executing, or if hardware problems prevent running offline code, or a MRF occurred in the offline CU. If the CC and main store diagnostic was not run previous to where the abort occurred, running them might find the problem. If any other offline main store code ran successfully, the offline code file on the disk might be bad. Rerun the phase. If the problem remains, the indicated data table file may be corrupted; seek technical assistance.
*45	The verify failed after a pump to the offline microstore by the mcexec data table command.	After the microcode pump is completed, the code is pumped back to the online for verification. This error means the returned file did not match the file sent. Problem could be in microstore or in the communication between online and offline processors. If the CC diagnostic was not run previous to where the abort occurred, running it might find the problem.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
46	The object file specified in an excofl data table command could not be opened for reading or it is not the proper type of file for running offline main store code. Also, file I/O function (`lseek`) might not have been able to seek to the desired location in the object file.	This can be due to mutilation of the specified object file. Rerun the phase. If the problem remains, the indicated object file may be corrupted; seek technical assistance.
*47	Offline main store object file could not be copied from online processor to offline processor.	The maintenance driver library function pcpyto is used to do the copy. The online or offline maintenance channel could be faulty. The PCPMD error code, which appears under the heading DRIVER DATA, could help determine the cause of the problem.
*48	Could not set stack register or argument register in offline CU for offline main store execution.	Failure to connect to the equipment configuration database (ECD), unit control block (UCB) record ID points to the online control unit (CU), or CU was not OUT OF SERVICE. Make sure the maintenance request is for the offline CU and that the offline CU is out-of-service. If this is not the problem, use the RCV command to examine the ECD paying particular attention to the UCB for the unit being diagnosed.
*49	Cannot setup stack argument count and program counter or address pointer in offline main store.	Some of the things to look for are as follows: The offline CU was not OUT OF SERVICE, the pointer to the UCB is not valid or does not point to a CU UCB in the ECD database, the UCB record ID was pointing to the online processor, or the maintenance channel did not execute the expected number of bytes. Make sure the maintenance request is for the offline CU and that the offline CU is out-of-service. If this is not the problem, use the RCV command to examine the ECD paying particular attention to the UCB for the unit being diagnosed. Also, run CC diagnostic phases 1 through 4 to verify communication between the online and offline maintenance channels.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
*4A	The test routine loaded in the offline main store did not execute properly.	The PCPMD function pexecothr is used to start execution. The pointer passed to it from cudiagc was not recognized as a valid pointer or did not point to a CU UCB in the ECD. Retry the maintenance request. If the problem remains, use the RCV command to examine the ECD paying particular attention to the UCB for the unit being diagnosed. The file may be corrupted; seek technical assistance.
*4B	The test routine loaded in the online microstore and/or mainstore did not execute properly.	The PCPMD function pexeconl is used to start online execution. Retry the maintenance request, and if the problem remains, use the number printed in ERRNO to look up the source of the problem in the System Error Codes Output Appendix, SYSERR-APP.
4C	The equipment configuration database (ECD) manager could not be opened for a special unit control block request.	Verify that file /dev/ecd exists.
4D	Illegal helper unit requested.	Not used.
4E	The member version or equipage fields of the ECD for the main store are incorrect.	Use the RCV command to examine the UCD for the mainstore being diagnosed. Verify that there is 1 equipage bit set (starting at bit 0) for each memory array equipped. Also, verify that the low order nibble (4-bits) of the MV field has one of the following values: (1 - TN07; 3 - TN14; 4 - TN28; 5 - TN56; 6 - TN2012) and bit 5 of the MV field should be: (0 - UN39, UN40; 1 - UN59).
4F	Could not setup UCB for maintenance driver access. Appears only when the host is a UNIX® RTR machine.	Function psetup failed to pass a pointer to the top of the UCB to PCPMD. Use RCV to verify ECD is consistent and up to date for the control unit under test.

Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
50	An invalid parameter was input when running diagnostics using the interactive mode of operation.	The interactive mode is used for main store phase 95. Three types of input errors could cause this problem. (1) The starting address is larger than the ending address. (2) The starting address is larger than the highest possible address. (3) The refresh rate is invalid. The valid refresh rates are from 2 to 16 milliseconds in steps of 2 and 32 to 60 milliseconds in steps of 4. See EX command in the Input Message Manual.
52	The special ECDMAN function (ursvucb) could not reserve the specified UCB.	Check that the u_admin field of the UCB is *1* (not reserved). If it is reserved, see the REPT-MIRA output message (reason 2). If it is not reserved, rerunning the diagnostic should clear the problem.
53	Cannot release a previously reserved unit control block (UCB) via the special ECDMAN function urelucb.	Display the contents of the UCB for the unit being diagnosed. If the u_admin variable is a *0*, the UCB is still reserved. See the REPT-MIRA output message (reason 2). If it is not reserved, rerunning the diagnostic should clear the problem.
54	Cannot find unit control block (UCB) for helper unit.	The getucb function could not find the UCB for helper unit. Verify that the helper unit was specified correctly in the input command. Use RCV to verify that helper unit UCB exists and is correct. If the problem remains, the data table file may be corrupted; seek technical assistance.
56	Illegal instruction signal received from operating system.	Rerun the diagnostic phase which caused this error. If the problem remains, the data table file for the indicated phase or the file /diag/dgnc/cudiagc may be corrupted; seek technical assistance.
57	Bus error signal received from operating system.	Rerun the diagnostic phase which caused this error. If the problem remains, the data table file for the indicated phase or the file /diag/dgnc/cudiagc may be corrupted; seek technical assistance.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
58	Segment violation signal received from operating system.	Rerun the diagnostic phase which caused this error. If the problem remains, the data table file for the indicated phase or the file /diag/dgnc/cudiagc may be corrupted; seek technical assistance.
59	Error on system call signal received from operating system.	Rerun the diagnostic phase which caused this error. If the problem remains, the data table file for the indicated phase or the file /diag/dgnc/cudiagc may be corrupted; seek technical assistance.
5A	The ECD Manager failed to fill in the special device file path name.	Use the RCV command to verify that the special device file exist in the LOGDEV.
5B	Could not open the special device file used to talk with the hardware.	The ECD manager must be reinitialized. This ECD function is used only in peripheral (IOP or DFC) units where the unique field in the UCB is ON. Other units may still be diagnosed in the face of this problem.
5C	The ECD manager failed to release a special device file used for communication with the peripheral hardware.	If the special device file was already released, a retry of the request should correct the problem. A second abort means the ECD manager has an internal software problem that can only be corrected by restoring the ECD manager.
61	The control unit diagnostic controller failed to open processor control process maintenance driver (PCPMD).	Verify that file /dev/cu exists.
*62	A write to the diagnostic driver (PCPMD) has failed.	The function endblk in cudiagc sends a buffer of maintenance channel commands to the offline maintenance channel via the PCPMD function pexmch. pexmch has failed. The PCPMD error code, that appears under the heading DRIVER DATA, will indicate the cause of the problem. Run CC diagnostic phases 1 through 4 to verify operation of the maintenance channel.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
63	This code is an indication to the diagnostic monitor that a phase of the diagnostic completed normally.	This is not an error code and will not cause an abort.
64	Could not open data table file or micro code program file.	Verify the existence of the file being opened. If the statement (S) is zero, a data table file could not be opened. The name of the file (relative to directory `/diag/dgnc`) is specified in the (P+1)th line in the file `/diag/dpt/cu/<file>` where P = the phase that aborted, file is selected by the "dgn" line(s) in `/diag/util/cu/<unit>` and possibly the "mv" field of the UCB, and `unit` = the name of the unit being diagnosed. If the index (I) is 17 or 2a, the name of the file is `/diag/offcode/mic/<file>.u` where `file` = the file name specified at statement S in the listing of the phase which aborted.
65	The diagnostic control buffer could not be shared by cudiagc from the diagnostic monitor.	The `connseg` system call has failed. The ERRNO item will indicated the system error reason.
66	The diagnostic control program has encountered an invalid index or argument in a data table.	Rerun the phase. If the problem remains, the data table file for the indicated phase may be corrupted; seek technical assistance.
67	The diagnostic control program was spawned by the diagnostic monitor with the wrong number of arguments.	Rerun the diagnostic.
68	The diagnostic control program could not setup the spooler control string for buffered output to the TTY from which the diagnostic request was input.	Rerun the diagnostic. If the problem remains, reinitialize the craft interface (key 15 on the emergency action interface (EAI) page at the maintenance terminal).

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
69	The histogram format print file for the main store diagnostic failed to be opened.	This file should be located in the directory /diag/dgnc under the name dgnff. Verify that this file does exist and has read permission.
6A	An illegal option was input while running diagnostics in the interactive mode (that is, EX command).	Verify that the input command syntax is correct. See the EX command in the input message manual.
*6B	Offline register could not be read back to online processor.	This is probably due to a maintenance channel error. Rerun the diagnostic. If the problem remains, run CC diagnostic phases 1 through 4 to test the maintenance channel.
6C	Cannot open file for trouble location process.	The problem could be that there is not enough file space in /tmp. Rerun the diagnostic.
*6D	The offline control unit (CU) has reset via the maintenance reset function (MRF).	Examine the error register to determine if a hardware error occurred and, if so, its cause. The MSA, MSA1, MSA2 and MSA3 registers form a push-down stack with MSA at the top. The highest register that does not contain 0 or 2b is the microstore address being executed when the MRF occurred. The program address (PA) contains the mainstore address being executed when the MRF occurred.
6E	The datatbl file contains instructions which are not supported on this hardware platform.	Verify that the umodel field in the unit's top-level UCB record is correct. Otherwise, the datatbl file is incorrect or the wrong datatbl file is being invoked. Seek technical assistance to correct these problems.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
This message has OMDB keys of 34, 36, and 743.

Output Appendix
SYSERR-APP

Input Message
DGN:CU

Output Message
REPT-MIRA

ID . . . . . REPT-DGN,AUDIT
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1]
```
REPT DGN AUDIT a
R = b
DRIVER DATA
D = m
PHASE DATA
T = i A = j S = k I = l
```

[2]
```
REPT DGN AUDIT a
R = b
SYSTEM DATA
D = n
PHASE DATA
T = i A = j S = k I = l
```

[3]
```
REPT DGN AUDIT a
R = b
LEXEC DATA
D = o errno = p
PHASE DATA
T = i A = j S = k I = l
```

2. REASON FOR OUTPUT

Each of the formats has a separate purpose.

Format 1 is used to report a peripheral driver error encountered by the peripheral diagnostic programs.

Format 2 is used to report a peripheral diagnostic error encountered by the peripheral diagnostic programs.

Format 3 is used to report a LEXEC function failure encountered by the peripheral diagnostic programs.

3. VARIABLE FIELD DEFINITIONS

a = Diagnostic reporting the error for the disk file controller (DFC), input/output processor (IOP), and dual serial channel/computer interconnect (DCI).

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b = Reason for audit, in hexadecimal notation.

- 41 — open special device file failed
  For SMD MHDs with UCB `device_id` field = 0 (first MHD on DFC, usually MHD 0 or 1), MHD type read from DFC backplane may not agree with MHD UCB equipage field or may not be read correctly by DFC TN65 or UN64 board.
- 42 — SETIO failed
- 43 — `makeseg` failed
- 44 — `sendpw` failed
- 45 — read PC pump file failed
- 46 — driver operation failed
- 47 — open PC pump file failed
- 48 — `msgenab` failure
- 49 — `msgdisab` failure
- 4A — open processor control process maintenance driver (PCPMD) failed
- 4B — write to PCPMD failed
- 4C — `excofl` timed out
- 4D — open ECD manager failed
- 4E — function `ugucbn` failed
- 4F — peripheral interface controller (PIC) microstore size not in UCB
- 50 — receive wait failed
- 51 — `LEXEC` function failed
- 52 — `e_host` of UCB not initialized
- 53 — `lseek` function failure
- 54 — drive size not 5 or 19 tracks
- 55 — `makeseg` failed for disk read / write buffer
- 56 — write / read segment too small
- 57 — function `ugetucb` failed
- 58 — DFC not active
- 59 — IOP not active
- 61 — SCSI bus not active
- 62 — incorrect flash ram file count
- 63 — feature not supported
- 64 — cannot open data table file or micro program file
- 65 — cannot share DCB from DIAMON
- 66 — error in the data table
- 67 — invalid number of parameters from DIAMON
- 68 — open spooler failed
- 69 — invalid equipage field value
- 6A — invalid interactive mode command
- 6C — open `tlpfile` failed
- 6D — signal - illegal instruction
- 6E — signal - bus error
- 6F — signal - segment violation
- 70 — signal - software termination
- 71 — function ugnxtucb failed
- 72 — illegal device type for DFC

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73 — function ucbrsrv failed
74 — function ugsdf failed
75 — function diskinfo failed
77 — specified file not accessible
78 — could not create output file
79 — flash ram data file wrong size
7A — could not write output file

i = Last test executed, in decimal notation.

j = Data table address, in hexadecimal notation.

k = Data table statement number, in decimal notation.

l = Task routine index, in hexadecimal notation.

m = Peripheral driver information/error code, in hexadecimal notation. For DFC and DCI diagnostics, dkdrv interfaces with diagc. For IOP diagnostics, the maintenance handler interfaces with diagc. The DFC information/error codes are in output DFC Appendix A, DFC-APPA. The IOP error codes (from the maintenance handler) are in output IOP Appendix G, IOP-APPG. The DCI information/error codes are in output DCI Appendix A, DCI-APPA.

n = Error code, in decimal notation, returned on a failing system call or ECD function call. See System Error Codes Output Appendix, SYSERR-APP.

o = Error code, in decimal notation, returned by LEXEC function call. See the System Error Codes Output Appendix, SYSERR-APP.

p = Error code, in decimal notation, from a PCPMD (the CU maintenance driver) function call. See the System Error Codes Output Appendix, SYSERR-APP.

4. ACTION TO BE TAKEN

If the reason for audit is 58, 59, or 61, restore the appropriate unit. If the reason for audit is 6A, check the syntax of the command. For all other reasons or if audit continues, seek technical assistance.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

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6. REFERENCES

OMDB Key
Formats 1, 2, and 3 have an OMDB key of 56.

Output Appendixes
- DCI-APPA
- DFC-APPA
- IOP-APPG
- SYSERR-APP

Input Messages
- DGN:CU
- DGN:DCI
- DGN:DFC
- DGN:DUIC
- DGN:HSDC
- DGN:MHD
- DGN:MTC
- DGN:MTTYC
- DGN:SCSDC
- DGN:SDLC
- DGN:TTYC

Output Messages
- DGN-AUDIT
- DGN-CU
- DGN-CU,MASC
- DGN-DCI
- DGN-DFC
- DGN-DUIC
- DGN-HSDC
- DGN-INHIBIT
- DGN-IOP
- DGN-MHD
- DGN-MTC
- DGN-MTTYC
- DGN-SCSDC
- DGN-SDLC
- DGN-TTYC

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Practice 254-301-100 *Input-Output Interfaces Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-DIAMON
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT DIAMON  ERROR = a ERRNO = b
```

2. REASON FOR OUTPUT

To report that the diagnostic monitor (DIAMON) has aborted one or more diagnostic control processes due to an error condition.

For additional, application-specific information about format or field values, refer to appropriate, application-specific documentation.

3. VARIABLE FIELD DEFINITIONS

a = Error code, in hexadecimal notation. See the table description in this message.

b = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

A system error code of zero means that no system error was reported.

4. ACTION TO BE TAKEN

An explanation of the error encountered and the appropriate action to be taken are shown in the following table.

Table 1. Error Codes

a =	Explanation	Action to be Taken
41	A manual request to terminate the maintenance request was entered at the maintenance terminal (MCRT).	Rerun the maintenance request.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
42	The diagnostic monitor could not send an event to the diagnostic controller.	The UNIX® system call sendev believes the diagnostic controller process does not exist. Check that this process exists in the directory `/diag/dgnc` under the name `cudiagc` for a control unit diagnostic, `dfdiag` for a DFC or MHD diagnostic, or `iodiag` for a DUIC, IOP, MTC, MTTYC, SCSDC, SDLC, or TTYC diagnostic. Verify line one of the DPT file identifies a valid diagc process. The DPT file is `/diag/dpt/<type>/<unit>` where `unit` = the unit type specified in the input request; `type` = `cu` if the unit is within a CU, or `pu` if the unit is within an IOP or DFC. Restore files from the backup file system.
43	Could not find Trouble Location Process (TLP) pathname in the util file.	A TLP file should be specified in the file `/diag/util/ cu/unit_name` for a control unit diagnostic or `/diag/util/ pu/unit_name` for a peripheral unit diagnostic. For an example of a util file, refer to error code `5A`. Restore file from backup file system.
44	UNIX® system call (`lcall`) could not find the Trouble Location Process, or there is no execute permission on the file.	Verify that the file `/diag/dgnc/tlp` exists and has execute permission. Restore file from backup file system.
45	The diagnostic monitor failed to receive a message from the remove process.	Errors may occur if the remove process has not enabled message reception, or the requested type or size is invalid. Retry the request.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
46	The diagnostic monitor could not create a segment of memory to be shared with the diagnostic controller.	The problem could be insufficient swap space or address space in the user's address space for the segment. Retry the diagnostic until enough user space is free to create a segment.
47	The messages queue, maintained by the operating system, was not available for diagnostic usage.	Too many messages are being input at this time for the operating system to handle. Retry the request until the message queue frees up.
48	The input message from the Maintenance Input Request Administrator via the operating system to the diagnostic monitor failed.	Retry the request.
49	The diagnostic monitor could not set up the spooler control string for buffered output to the TTY that originated the request.	If the input came from the maintenance TTY (MCRT), the problem may be correctable by initializing the craft interface (EAI page, key 15).
4A	The diagnostic monitor format file for the maintenance output process has an invalid spooler tag.	Retry the request. If the problem remains, the file `/diag/dgnc/fmat` has been mutilated and must be restored from a backup file system.
4B	An error occurred when trying to open the Equipment Configuration Database (ECD).	Verify that file `/dev/ecd` exists.
4C	The input request had valid syntax, but one or more fields were found to be incorrect.	Check the input command for correctness. Perhaps a nonexistent unit type or phase number was specified. Retry the request. Refer to the *Input Message Manual* for a description of the maintenance commands.

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Table 1. Error Codes *(continued)*

a =	**Explanation**	**Action to be Taken**
4D	DIAMON could not find the location of the remove process in the diagnostic utility file.	An RMV file should be specified in the file /diag/util/cu/unit_name for a control unit diagnostic or /diag/util/pu/unit_name for a peripheral unit diagnostic. For an example of a util file, refer to error code 5A. Restore file from backup file system.
4E	Could not find the location of the restore process in the diagnostic utility file.	An RST file should be specified in the file /diag/util/cu/unit_name for a control unit diagnostic or /diag/util/pu/unit_name for a peripheral unit diagnostic. For an example of a util file, refer to error code 5A. Restore file from backup file system.
4F	Failed to spawn the process for removing a unit from service.	The file was either not found or it did not have execute permission. To verify the remove process for a control unit diagnostic, use the OP:STATUS:LISTDIR command with the filename /unixutil/cu/curstrmv. For a peripheral unit diagnostic, the same command with the file name /diag/dgnc/iormv or /diag/dgnc/dfrmv will verify the remove process. If the remove process exists and has execute permission, the system might be out of space. Retry the request until the system process space frees up.
50	Failed to spawn the process for restoring a unit to service.	The file was either not found, or it did not have execute permission. Refer to error code 4F for the action to be taken since the restore and remove use the same process.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
51	An invalid return value was received from the remove process.	Retry the request.
52	An invalid return value was received from the restore process.	Retry the request.
53	The remove process failed to receive a message.	The remove process did not enable message reception, the type specified is not valid, or most likely, the remove process has an excessive amount of messages outstanding on its queue. Retry the request.
54	The restore process failed to receive a message.	The restore process did not enable message reception, the type specified is not valid, or most likely, the restore process has an excessive amount of messages outstanding on its queue. Retry the request.
55	An illegal maintenance input request was received from the maintenance input administrator.	Check the input command for correctness. Retry the request. Refer to the *Input Message Manual* for a description of the maintenance commands.
56	The unit requested to be restored is not a restorable unit.	Check the input command for correctness. Retry the request. If the unit is being falsely taken as unrestorable, use the RCV command to update the `u_restorable` field in the Unit Control Block (UCB) for the unit from OFF to ON.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
57	The utility file for the remove, restore, diagnose, or trouble location process could not be opened.	Verify the utility file exists with read permission. The file is named `/diag/util/ <type>/<unit>` where `unit` = the unit specified in the input request; `type` = `cu` if the unit is within a CU, or `pu` if the unit is within an IOP or DFC. Restore file from backup file system.
58	The unit control block could not be released by the ECD manager.	Either the UCB was not reserved, or an error occurred when trying to release it. Retry the request.
59	The result of the diagnostic could not be sent from DIAMON to MIRA.	Errors can occur if MIRA did not enable message reception, an invalid message was sent, or MIRA has an excessive amount of messages outstanding on its queue. Retry the request.

5A	The tag in the utility file for the remove, restore, diagnose, or the trouble location process could not be found.	Examine the utility file for the unit specified in the input request. It should look like the following example of the Central Control utility file:
		`dgn :../dpt/cu/cc`
		`rst :/unixutil/cu/curstrmv`
		`rmv :/unixutil/cu/curstrmv`
		`tlp :tlp`
		The file named `/diag/util/ <type>/<unit>` where `unit` = the unit specified in the input request; `type` = `cu` if the unit is within a CU, or `pu` if the unit is within an IOP or DFC. Restore file from backup file system.

Table 1. Error Codes *(continued)*

a =	**Explanation**	**Action to be Taken**
62	Error in the request message. The repeat counter has a value greater than 0 but the RPT option was not specified.	This is a warning; the phase will run, but not in repeat mode. Identify the process sending the request. Retry the request manually.
63	A death of child signal was received by the diagnostic monitor, but the diagnostic monitor could not determine which child process was active.	This error indicates an internal problem in the diagnostic monitor. Retry the request.
64	A death of child signal was received for the diagc process indicating an exec failure.	The `diagc` process could not be executed. Retry the request. If the error continues to occur, restore the `diagc` process from the backup file system. The `diagc` processes are found in the directory `/diag/dgnc`. The names of the `diagc` processes are `cudiagc` (for CU diagnostics) `dfdiag` (for DFC diagnostics) and `iodiag` (for IOP diagnostics). Verify line one of the DPT file identifies a valid `diagc` process. The DPT file is `/diag/dpt/<type>/<unit>` where `unit` = the unit type specified in the input request; `type` = `cu` if the unit is within a CU, or `pu` if the unit is within an IOP or DFC. Restore files from the backup file system.
65	A death of child signal was received by the diagnostic monitor; however, no child process was being monitored.	Retry the request.

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Table 1. Error Codes *(continued)*

a =	**Explanation**	**Action to be Taken**
66	Incorrect version specification in utility file.	Examine the multiple version lines of the appropriate utility file for incorrect version number representations like octal 8 (08). Also, verify that each tag has a multiple version line that has a value that is less than or equal to the MV in the UCB for that subunit. Multiple version utility file lines look like: `tlp :0x0:tlp`
67	Could not remove specified unit or subunit. Error return received from remove process.	Verify correctness of input unit specification. For example: CU 0, CC 0 is not valid. Further information can be obtained from remove process output messages.
68	Could not restore specified unit or subunit.	Verify correctness of input unit specification. For example: CU 0, CC 0 is not valid. Further information can be obtained from restore process output messages.
69	No Trouble Location Process (TLP) process exists for the unit requested.	Do not use the TLP option for this unit.
6A	No diagnostic exists for the unit requested.	Do not use the `DGN` or `EX` commands with this unit.
6B	The ECD manager failed to write the `u_util` field in the UCB.	Use the RCV command to verify that the `u_util` field in the UCB for the unit specified in the input request is of the form `cu/<unit>` or `pu/<unit>`.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
6C	The ECD manager failed to release a special device file used for communication with the peripheral hardware.	If the special device file was already released, a retry of the request should correct the problem. A second abort means the ECD manager has an internal software problem that can only be corrected by restoring the ECD manager.
6D	Diagnostic monitor could not open the format file for the maintenance output process.	Verify the file `/diag/dgnc/fmat` exists with read permission.
6E	Could not open the diagnostic phase table (DPT) file for the requested unit.	Verify the DPT file exists with read permission. The file is named `/diag/dpt/ <type>/<unit>` where `unit` = the unit specified in the input request; `type` = `cu` if the unit is within a CU, or `pu` if the unit is within an IOP or DFC. Restore file from backup file system.
6F	DIAMON failed to open the ECD manager.	Verify that file `/dev/ecd` exists.
70	The Unit Control Block for the unit under test was not found.	An invalid equipment ID was entered in the input request, or a ECD problem exists. Check the input command for correctness. Retry the request. Refer to the input messages manual for a description of the maintenance commands. Verify the database correctness using the recent change and verify command `RCV:MENU;BROWSE`.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
71	Could not get the next unit control block in the diagnostic hierarchy from the ECD manager.	Verify the database correctness using the recent change and verify command RCV:MENU;BROWSE.
72	The diagnostic phase table (DPT) file could not be read.	Verify the DPT file exists with read permission. The file is named /diag/dpt/ <type>/<unit> where unit = the unit specified in the input request; type = cu if the unit is within a CU, or pu if the unit is within an IOP or DFC.
73	The diagnostic monitor could not spawn the diagnostic control process (DIAGC) for the unit specified in the input request.	Verify the DIAGC file exists with the execute permission. The file is named /diag/dgnc/<name> where name = cudiagc if the unit is within a CU, iodiag if the unit is within an IOP, or dfdiag if the unit is within a DFC. Restore file from backup file system. The system may be at its process limit. Retry the request when the system process space frees up.
74	An illegal phase number was specified in the diagnostic input request.	Check the input request for correctness. Retry the request. Refer to the input messages manual for a description of the maintenance commands. Verify the DPT file has active phases. The DPT file is /diag/dpt/<type>/<unit> where unit = the unit type specified in the input request; type = cu if the unit is within a CU, or pu if the unit is within an IOP or DFC. Restore file from the backup file system.

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Table 1. Error Codes *(continued)*

a =	**Explanation**	**Action to be Taken**
75	The UCB for the unit to be diagnosed is already reserved by another maintenance client not under the control of MIRA, or a previous maintenance request failed to release the UCB.	Refer to the *Output Message Manual* entry `REPT-MIRA`.
76	Could not open special device file used to talk with hardware.	The ECD manager must be reinitialized. This ECD function is used only in peripheral (IOP or DFC) units where the unique field in the UCB is ON. Other units may still be diagnosed in the face of this problem.
77	An invalid message was sent from the Maintenance Input Request Administrator or the Diagnostic Controller.	Retry the request.
78	The diagnostic monitor was sent an invalid type of request.	Retry the request.
79	The diagnostic controller returned an invalid result after a diagnostic phase completed.	Retry the request.
7A	The diagnostic controller returned an invalid result after a unit diagnostic completed.	Retry the request.
7B	A request to the ECD manager to update the minor device state has failed.	Seek technical assistance.

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Table 1. Error Codes *(continued)*

a =	Explanation	Action to be Taken
7C	The user has attempted to execute diagnostics on an IOP tape device. This is valid for only DFC tape devices.	The unit name or number is incorrect. If the tape device is an IOP sub-device the MTC should be diagnosed. If the tape device is a DFC sub-device the unit number is incorrect. Correct the input command and retry the request.
7D	The user has attempted to diagnose CSU or SAT. These units are part of the CC on this hardware platform.	Use the DGN:CU input message to diagnose the CC.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key
This message has an OMDB key of 95.

Output Appendix
SYSERR-APP

Input Messages
DGN:CU
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:MHD
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
OP:ST;LSTDIR
RCV:M;BROWSE

Output Message
REPT-MIRA

ID . . . . . REPT-DIO,ACK
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . EIH

1. FORMAT

```
REPT DIO - ACKNOWLEDGE FAILURE X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e
DMA ADDRESS:  fffffffff  DMA STATUS REGISTER:  gggggggg
h
CHANNEL ADDRESS: iiiiiiii CHANNEL STATUS REGISTER: jjjjjjjj
DMA RAM:  kkkkkkkk  llllllll  mmmmmmmm  nnnnnnnn
DMA STORE DATA REGISTER:  oooooooo  DMA INCREMENTOR:  pppppppp
DMA BUFFER REGISTER:  qqqqqqqq
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

Either more than one or no channel responded to the direct memory access controller (DMAC).

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

f = Input/output address of the direct memory access controller (DMAC) encountering the fault (in hexadecimal).

g = Direct memory access (DMA) status register (in hexadecimal). See *System Maintenance Manual*, Appendixes C and D.

h = For Model 1:

`DMA CHANNEL STATUS REGISTER:` *xxxxxxxx*

For Model 2:

`CHANNEL DATA REGISTER:` *yyyyyyyy*

i = Input/output address of the channel the DMA believed caused the problem (in hexadecimal).

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j = Status of the DMA channel (in hexadecimal). This is the dual serial channel register (DSCH). See *System Maintenance Manual*, Appendix E.

k = First word entry in the DMA RAM for the device that failed (in hexadecimal).

l = Second word entry in the DMA RAM for the device that failed (in hexadecimal).

m = Third word entry in the DMA RAM for the device that failed (in hexadecimal).

n = Fourth word entry in the DMA RAM for the device that failed (in hexadecimal).

o = The contents of the DMA store data register (in hexadecimal).

p = The contents of the DMA incrementor (in hexadecimal).

q = The contents of the DMA buffer register (in hexadecimal).

x = Status of the channel under the DMAC that encountered the fault (in hexadecimal). See *System Maintenance Manual*, Appendix B.

y = Contents of the faulted channels data register (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time the error interrupt.

4. ACTION TO BE TAKEN

Run diagnostics on the indicated unit.

5. ALARMS

None.

6. REFERENCES

Output Message
DGN:UNIT

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ID . . . . . REPT-DIO,READY
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . EIH

1. FORMAT

```
REPT DIO - READY FAILURE X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e
DMA ADDRESS: fffffffff  DMA STATUS REGISTER:  ggggggggg
h
CHANNEL ADDRESS: iiiiiiii CHANNEL STATUS REGISTER: jjjjjjjj
DMA RAM:  kkkkkkkk  lllllll  mmmmmmmm  nnnnnnnn
DMA STORE DATA REGISTER:  ooooooooo  DMA INCREMENTOR:  pppppppp
DMA BUFFER REGISTER:  qqqqqqqq
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

The named channel did not return a READY signal to the direct memory access controller (DMAC).

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form mm/dd/yy hh:mm:ss.

f = Input/output address of the DMAC encountering the fault (in hexadecimal).

g = The contents of the direct memory access controller (DMA) status register (in hexadecimal). See *System Maintenance Manual*, Appendixes C and D.

h = For Model 1:

DMA CHANNEL STATUS REGISTER: *xxxxxxxx*

For Model 2:

CHANNEL DATA REGISTER: *yyyyyyyy*

i = Input/output address of the channel the DMA believed caused the problem (in hexadecimal).

SEE PROPRIETARY NOTICE ON COVER PAGE

j = Status of the DMA channel (in hexadecimal). This is the dual serial channel register (DSCH). See *System Maintenance Manual*, Appendix E.

k = First word entry in the DMA RAM for the device that failed (in hexadecimal).

l = Second word entry in the DMA RAM for the device that failed (in hexadecimal).

m = Third word entry in the DMA RAM for the device that failed (in hexadecimal).

n = Fourth word entry in the DMA RAM for the device that failed (in hexadecimal).

o = The contents of the DMA store data register (in hexadecimal).

p = The contents of the DMA incrementor (in hexadecimal).

q = The contents of the DMA buffer register (in hexadecimal).

x = Status of the channel under the DMAC that encountered the fault (in hexadecimal). See *System Maintenance Manual*, Appendix B.

y = Contents of the faulted channels data register (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time the error interrupt.

4. ACTION TO BE TAKEN

Run diagnostics on the indicated unit.

5. ALARMS

None.

6. REFERENCES

Output Message
DGN:UNIT

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ID . . . . . REPT-DIOP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has seven formats.

[1] `REPT DIOP DIOPNKILL UNSWAP FAILURE` *a*

[2] `REPT DIOP DIOPNKILL SWAP FAILURE` *a*

[3] `REPT DIOP SIMPLEX UNSWAP FAILURE` *a*
`REPT DIOP SIMPLEX PROCESSING FAILURE`

[4] `REPT DIOP SIMPLEX PROCESSING COMPLETED`

[5] `REPT DIOP DUPLEX SWAP FAILURE` *a*

[6] `REPT DIOP DUPLEX PROCESSING COMPLETED`

[7] `REPT DIOP ALL NONESSENTIAL IMS PROCESSES TERMINATED`

2. REASON FOR OUTPUT

Format 1 reports that a process has requested that it be made disk independent operation (DIOP) essential while the computer disks are simplex, but the kernel cannot swap it in or make it nonswappable.

Format 2 reports that a process has requested that it be made disk independent operation nonessential, but the kernel cannot make it swappable.

Format 3 reports a swappable disk independent operation essential process cannot be made nonswappable in the computer disk simplex mode.

Format 4 reports the successful execution of the disk simplex operation. All swappable disk simplex essential processes have been swapped in and made nonswappable.

Format 5 reports that while attempting to re-enter computer disk duplex operation, a process that was made nonswappable because it was disk independent operation essential cannot be made swappable.

Format 6 reports that computer disk duplex operation has been restored. All processes that were made nonswappable because of administrative module (AM) disk simplex operation have been made swappable.

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Format 7 reports that the switch has been placed in the DIOP mode. All nonessential interprocess message switch (IMS) processes have been terminated. This message is reported every 15 minutes as long as IMS is in the DIOP mode.

3. VARIABLE FIELD DEFINITIONS

a = pcode portion of the process's utility ID.

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, and 5, report the failure message to a technical support person.

For Formats 4 and 6, no action is necessary.

For Format 7, an IMS level 3 or level 4 initialization is required to bring the IMS out of the DIOP mode and restore its full capabilities.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
Formats 1 through 7 have an OMDB key of 334.

ID . . . . . REPT-DKDIP-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL,MAINT

1. FORMAT

This message has four formats.

[1] `REPT DKDIP MESSAGE`
`REPT DKDIP CANNOT OPEN ECD`

[2] `REPT DKDIP MESSAGE`
`REPT DKDIP CANNOT ATTACH TO THE ECD`

[3] `REPT DKDIP MESSAGE`
`REPT DKDIP IS RESTARTED AFTER PHASE 1`

[4] `REPT DKDIP MESSAGE`
a

2. REASON FOR OUTPUT

For Formats 1, 2, and 4 report the result of executing a command using a poke number on the data file system access (DFSA) display page during `DISK INDEPENDENT OPERATION`.

For Format 3 reports that `DKDIP` was restarted after a Phase 1 initialization.

3. VARIABLE FIELD DEFINITIONS

a = Reference to another output message in the *Output Manual.*

4. ACTION TO BE TAKEN

For Formats 1, 2, and 3, take no action. The output messages that relate to the Equipment Configuration Database (ECD) only occur during the start-up sequence of the `DKDIP` process.

For Format 4, appropriate actions can be found under the appropriate output message pages in the output manual. The output messages that relate to the ECD only occur during the start-up sequence of the `DKDIP` process.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys

Formats 1, 2, and 3 have an OMDB key of 259.
Formats 4 has OMDB keys of 154, 253, 254, 255, 256, 257, 258, 266, 267, 268, 269, 270, 271, 574, 575, and 576.

Output Messages

```
DUMP-MHD,DEF
INIT-MHD
LOAD-MHD
RST-DFC
VFY-MHD
```

ID . . . . . REPT-DKDIP-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL,MAINT

1. FORMAT

This message has four formats.

[1] `REPT DKDIP MESSAGE`
`REPT DKDIP CAN'T OPEN ECD`

[2] `REPT DKDIP MESSAGE`
`REPT DKDIP CAN'T ATTACH TO THE ECD`

[3] `REPT DKDIP MESSAGE`
`REPT DKDIP IS RESTARTED AFTER PHASE 1`

[4] `REPT DKDIP MESSAGE`
a

2. REASON FOR OUTPUT

Formats 1 and 2 report that the `DKDIP` process could not open the equipment configuration database (ECD) or could not attach to the ECD.

Format 3 reports that the `DKDIP` process was restarted after a Phase 1 initialization.

Format 4 reports the status of a poke request invoked from the DFSA display page during disk independent operation (DIOP).

3. VARIABLE FIELD DEFINITIONS

a = Reference to another output message in the *Output Manual.*

4. ACTION TO BE TAKEN

Formats 1 and 2 relate to the ECD and are printed only during the start-up sequence of the DKDIP process. Contact the next level of technical assistance.

Format 3 requires no action.

Format 4 appropriate actions can be found under the appropriate output message pages in the *Output Manual.*

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5. ALARMS

This alarm may be a manually-requested report, or an automatically-generated report for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Formats 1, 2, and 3 have an OMDB key of 259.
Format 4 has OMDB keys of 154, 253, 254, 255, 256, 257, 258, 266, 267, 268, 269, 270, 271, 574, 575, and 576.

Output Messages
```
DUMP-MHD,DEF
INIT-MHD
LOAD-MHD
RMV-SBUS
RST-DFC
RST-SBUS
VFY-MHD
```

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ID . . . . . REPT-DKDIP-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL,MAINT

1. FORMAT

This message has two formats.

[1] `REPT DKDIP MESSAGE`
`REPT DKDIP ERROR` *a* [*b*]

[2] `REPT DKDIP MESSAGE`
c

2. REASON FOR OUTPUT

Format 1 reports an error condition encountered by the `DKDIP` process.

Format 2 reports the status of a poke request invoked from the DFSA display page during disk independent operation (DIOP).

3. VARIABLE FIELD DEFINITIONS

a = Process step or reason.

- `d04` — DKDIP was restarted due to phase 1
- `d18` — received invalid message type - message ignored
- `d22` — failed to get DAP's PID
- `d30` — failed to open the ECD
- `d34` — failed to attach to the ECD
- `d38` — failed to initialize ackdb segment
- `d50` — failed to get UCB record by RID
- `d60` — failed to get UCB record by RID
- `d63` — UCB returned is not a DFC UCB
- `d66` — invalid DFC UCB model field
- `d67` — performance updates stopped because of message overload
- `d68` — sendw() failed to send message to DAP
- `d70` — virtual address translation failure
- `d80` — failed to get UCB record by RID
- `d83` — invalid DFC sub-device type
- `d86` — failed to get UCB record by RID
- `d89` — invalid peripheral device type

b = System error code number. See System Error Codes Output Appendix, `SYSERR-APP`.

c = Reference to another output message in the *Output Manual.*

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

Format 1 is printed when the DKDIP process encounters an error condition either during initialization or when processing a client request. If the error condition persists, contact the next level of technical assistance.

For format 2, appropriate actions can be found under the appropriate output message pages in the *Output Manual.*

5. ALARMS

This alarm may be a manually-requested report, or an automatically-generated report for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 259.
Format 2 has OMDB keys of 154, 253, 254, 255, 256, 257, 258, 266, 267, 268, 574, 575, 576, 609, 653, 654.

Output Appendix
SYSERR-APP

Output Messages
DUMP-MHD,DEF
INIT-MHD
LOAD-MHD
RMV-SBUS
RST-DFC
RST-SBUS
VFY-MHD

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-DKDRV-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKSYS

1. FORMAT

This message has seven formats.

[1] `REPT DKDRV INFO DATA` *a*

[2] `REPT DKDRV ERROR CODE` *a*

[3] `REPT DKDRV WARNING CODE` *a*

[4] `REPT DKDRV ERROR DATA` *b*

[5] `REPT DKDRV RECEIVED UNKNOWN RCV MESSAGE` *c d e*

[6] `REPT DKDRV WARNING, MHD` *d* `PARTITION` *f* `IS WRITE RESTRICTED, VIOLATING PID` *g*

[7] `REPT DKDRV WARNING, MHD` *d* `EXCEEDS LONG TERM FAILURE THRESHOLD`

2. REASON FOR OUTPUT

Formats 1, 2, and 3 report a disk file controller (DFC) or disk driver (DKDRV) related error condition.

Format 4 is used to provide additional data for a preceding `REPT-DKDRV` message. For technical assistance organization use only.

Format 5 reports the DKDRV received notification from RCV that the ECD has changed, but the change type is not recognized.

Format 6 reports the process identifier (PID) of the violating process that tries to access the write-restricted partition.

Format 7 is output when a disk exceeds the failure threshold. Action may be necessary to prevent a system outage.

3. VARIABLE FIELD DEFINITIONS

a = DKDRV information code. See the output DFC Appendix A, `DFC-APPA`.

b = Supplemental data for previous `REPT-DKDRV` message.

c = Unit name.

d = Unit number.

e = RCV operation code.

f = Partition number.

g = PID of the violating process.

4. ACTION TO BE TAKEN

For Formats 1, 2, and 3, look up the reason for the information code or data in the output DFC Appendix A, DFC-APPA. If hardware is implicated, replace the faulty hardware using standard maintenance procedures. If a software or data malfunction is indicated, then try to correct the problem if possible.

For Formats 4, 5, and 6, save the receive-only printer (ROP) output, then contact your technical assistance organization.

For Format 7, see the *System Maintenance Manual*, handling disk media access errors section.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Formats 1, 2, and 3 have an OMDB key of 230.
Format 4 has an OMDB key of 231.
Format 5 has an OMDB key of 240.
Format 6 has an OMDB key of 547.
Format 7 has an OMDB key of 554.

Output Appendix
DFC-APPA

Input Messages
CLR:MHD;MAEC
DGN:DFC
DGN:MHD
LOAD:MHD;DEF
OP:DFCELOG
RMV:DFC
RMV:MHD
RST:DFC
RST:MHD

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
DGN-DFC
DGN-MHD
RMV-DFC
RMV-MHD
RST-DFC
RST-MHD
```

Practice 254-341-105 *Input/Output Software Structures Software Subsystem Description Lucent Technologies 3B20D Computer*

Practice 254-341-210 *Data Base Management System Software Subsystem Description Lucent Technologies 3B20D Computer*

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ID . . . . . REPT-DKDRV-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKSYS

1. FORMAT

This message has five formats.

[1] `REPT DKDRV INFO CODE` *a*

[2] `REPT DKDRV ERROR DATA` *b*

[3] `REPT DKDRV RECEIVED UNKNOWN RCV MESSAGE` *c d e*

[4] `REPT DKDRV WARNING, MHD` *d* `PARTITION` *f* `IS WRITE RESTRICTED, VIOLATING PID` *g*

[5] `REPT DKDRV WARNING, MHD` *d* `EXCEEDS LONG TERM FAILURE THRESHOLD`

2. REASON FOR OUTPUT

Format 1 reports a disk file controller (DFC) or disk driver (DKDRV) related error condition.

Format 2 is used to provide additional data for a preceding `REPT-DKDRV` message. For technical assistance organization use only.

Format 3 reports the DKDRV received notification from RCV that the ECD has changed, but the change type is not recognized.

Format 4 reports the process identifier (PID) of the violating process that tries to access the write-restricted partition.

Format 5 is output when the disk exceeds the failure threshold. Action may be necessary to prevent a system outage.

3. VARIABLE FIELD DEFINITIONS

a = DKDRV information code. See the output DFC Appendix A, `DFC-APPA`.

b = Supplemental data for previous `REPT-DKDRV` message.

c = Unit name.

d = Unit number.

e = RCV operation code.

f = Partition number.

g = PID of the violating process.

4. ACTION TO BE TAKEN

If Format 1 prints, look up the reason for the information code or data in the output DFC Appendix A, DFC-APPA. If hardware is implicated, replace the faulty hardware using standard maintenance procedures. If a software or data malfunction is indicated, then try to correct the problem, if possible.

If Formats 2, 3, or 4 print, save the receive-only printer (ROP) output, then contact your technical assistance organization.

If Format 5 prints, see the *System Maintenance Manual*, handling disk media access errors section.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 230.
Format 2 has an OMDB key of 192.
Format 3 has an OMDB key of 240.
Format 4 has an OMDB key of 547.
Format 5 has an OMDB key of 554.

Output Appendix
DFC-APPA

Input Messages
CLR:MHD;MAEC
DGN:DFC
DGN:MHD
LOAD:MHD;DEF
OP:DFCELOG
RMV:DFC
RMV:MHD
RST:DFC
RST:MHD

Output Messages
DGN-DFC
DGN-MHD
RMV-DFC
RMV-MHD
RST-DFC
RST-MHD

Practice 254-341-105 *Input/Output Software Structures Software Subsystem Description Lucent Technologies 3B20D Computer*

Practice 254-341-210 *Data Base Management System Software Subsystem Description Lucent Technologies 3B20D Computer*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-DLGGETTY
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has seven formats.

[1] `REPT DLGGETTY UNABLE TO ACCESS ECD FOR` *a*

[2] `REPT DLGGETTY CANNOT READ GETTY RECORD FOR` *a*

[3] `REPT DLGGETTY UNABLE TO CHANGE DIRECTORY TO` *b*

[4] `REPT DLGGETTY FAILED TO EXECUTE` *c*

[5] `REPT DLGGETTY FAILED TO OPEN` *d*

[6] `REPT DLGGETTY CHANID FOUND IN LOGDEV RECORD` *a*

[7] `REPT DLGGETTY UNABLE TO RETRIEVE LCHAN FROM ENVIRONMENT`

2. REASON FOR OUTPUT

To report that the `DLGGETTY` process has encountered an error while trying to process initialization information for a device. The message will appear on the originating device only.

3. VARIABLE FIELD DEFINITIONS

a = Teletypewriter (TTY) device against which the `dlggetty` is executing.

b = The directory which the dlggetty could not access.

c = Pathname of the process to be executed.

d = Special device file which could not be opened.

4. ACTION TO BE TAKEN

If format 1 or 2 is printed, verify that the getty record in the equipment configuration database (ECD) for the indicated TTY device is correct.

If format 3 is printed, verify that the directory indicated in the getty record exists.

If format 4 is printed, verify that the process which could not be executed exists and is executable.

SEE PROPRIETARY NOTICE ON COVER PAGE

If format 5, 6, or 7 is printed, or the errors persist after taking actions indicated above, seek technical assistance.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 312.

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-DLGSHL
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has 27 formats.

[1] `REPT DLGSHL DEVICE` *a* `CANNOT ENABLE MESSAGE RECEPTION`

[2] `REPT DLGSHL DEVICE` *a* `CREATE SEGMENT ERROR`

[3] `REPT DLGSHL DEVICE` *a* `UNABLE TO INITIATE I/O`

[4] `REPT DLGSHL DEVICE` *a* `TERMINAL OPEN ERROR`

[5] `REPT DLGSHL DEVICE` *a* `TERMINAL READING ERROR`

[6] `REPT DLGSHL DEVICE` *a* `TERMINAL WRITING ERROR`

[7] `REPT DLGSHL DEVICE` *a* `UNIDENTIFIED ERROR`

[8] `REPT DLGSHL DEVICE` *a* `UNABLE TO FORK CSDIP`

[9] `REPT DLGSHL DEVICE` *a* `UNABLE TO EXECUTE CSDIP`

[10] `REPT DLGSHL DEVICE` *a* `GETTRAP FAILED`

[11] `REPT DLGSHL DEVICE` *a* `SETTRAP FAILED`

[12] `REPT DLGSHL DEVICE` *a* `STATIO FAILED`

[13] `REPT DLGSHL DEVICE` *a* `NO CSDIP PROCESS`

[14] `REPT DLGSHL DEVICE` *a* `UNABLE TO ACCESS ECD DATA`

[15] `REPT DLGSHL DEVICE` *a* `UNABLE TO ACCESS AUTHORITY ADMINISTRATION`

[16] `REPT DLGSHL DEVICE` *a* `UNABLE TO RETRIEVE AUTHORITY GROUPS`

[17] `REPT DLGSHL DEVICE` *a* `NO SOP-CSOP COMMUNICATION POSSIBLE`

[18] `REPT DLGSHL DEVICE` *a* `UNABLE TO RETRIEVE LCHAN FROM ENVIRONMENT`

[19] `REPT DLGSHL DEVICE` *a* `EOF ENCOUNTERED`

[20] `REPT DLGSHL TERMINAL IN SERVICE *** ` *b* `CAPABILITY MODE / ` *c*

[21] `REPT DLGSHL UNABLE TO READ LINE` *d* `OF .pname FILE`

[22] `REPT DLGSHL CANNOT CHANGE DIRECTORY TO` *e*

[23] `REPT DLGSHL SETGID TO` *f* `FAILED`

[24] `REPT DLGSHL SETUID TO` *g* `FAILED`

[25] `REPT DLGSHL UNABLE TO ACCESS SPLRINFO FORM`

[26] `REPT DLGSHL CRAFT SHELL IS IN LIMP CAPABILITY MODE`

[27] `REPT DLGSHL ON MTTY WILL USE DEFAULT .PNAME FILE`

2. REASON FOR OUTPUT

To report a dialogue shell (DLGSHL) related occurrence or error.

Format 1 indicates that the DLGSHL cannot receive messages.

Format 2 indicates that the DLGSHL cannot create or open a segment.

Format 3 indicates that a call to `setio()` failed.

Format 4 indicates that the DLGSHL cannot open the specified device.

Format 5 indicates that the DLGSHL cannot read from the specified device.

Format 6 indicates that the DLGSHL cannot write to the specified device.

Format 7 is printed when the DLGSHL encounters an unknown error, such as an illegal enumeration value.

Format 8 is printed when the synchronous DLGSHL fails to fork the character special device interface process (CSDIP).

Format 9 is printed when the synchronous DLGSHL fails to execute the CSDIP.

Format 10 indicates that a call to `gettrap()` failed.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 11 indicates that a call to `settrap()` failed.

Format 12 indicates that a call to `statio()` failed.

Format 13 indicates that the CSDIP process on the specified device has died.

Format 14 indicates that the DLGSHL cannot access the equipment configuration database (ECD).

Format 15 indicates that the DLGSHL cannot access information relating to terminal and personal authority.

Format 16 indicates that the DLGSHL cannot retrieve information relating to input message authority groups.

Format 17 indicates that communication between the coordinator of spooler output processes (CSOP) and the DLGSHL spooler output function (SOF) have been corrupted.

Format 18 is printed when the DLGSHL cannot retrieve the LCHAN environment variable.

Format 19 indicates that the DLGSHL has been terminated.

Format 20 indicates that the DLGSHL has been initiated. A dialogue request character must be typed and, possibly, a password entered before the DLGSHL is ready to accept input messages (see the *System Maintenance Manual*).

Format 21 indicates that a message has requested a change to an environment that does not exist in the `.pname` file (see the *System Maintenance Manual*).

Format 22 indicates that a request to change an execution directory as a result of an environment change has not been honored.

Format 23 indicates that an attempt to change the group ID of the DLGSHL failed. This usually occurs as a result of attempts to change the environment.

Format 24 indicates that an attempt to change the user ID of the DLGSHL failed. This usually occurs as a result of attempts to change the environment.

Format 25 indicates that the DLGSHL cannot access the `splrinfo` record in the ECD.

Format 26 indicates that the DLGSHL cannot attach to the *Input Message Catalog*.

Format 27 indicates that the DLGSHL attached to the maintenance teletypewriter (MTTY) cannot read the `.pname` file and will, therefore, use a default `.pname` file containing the following: `0:..../cmds1:/cft/shl/cmds`.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

a = Device name.

b = DLGSHL capability mode: LIMP, PART or FULL.

c = Input message syntax: PDS or MML.

d = Label of line.

e = Name of the requested directory.

f = Name of the requested group ID.

g = Name of the requested user ID.

4. ACTION TO BE TAKEN

For Format 21, either the message or the `.pname` file is in error and must be corrected.

5. ALARMS

None. This automatically-generated report is for information only.

Critical alarm. Take immediate action as indicated in the report. Seek technical assistance if needed.

Minor alarm. Take action as indicated in the report.

6. REFERENCES

OMDB Keys
Formats 1-24 have an OMDB key of 301.
Formats 25 and 26 have an OMDB key of 299.
Format 27 has an OMDB key of 298.

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-DMA,ADDR
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT DMA - ADDRESS ERROR X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e
DMA ADDRESS: fffffffff  DMA STATUS REGISTER:  gggggggg
h
CHANNEL ADDRESS: iiiiiiii CHANNEL STATUS REGISTER: jjjjjjjj
DMA RAM:  kkkkkkkk  lllllll  mmmmmmmm  nnnnnnnn
DMA STORE DATA REGISTER:  oooooooo  DMA INCREMENTOR:  pppppppp
DMA BUFFER REGISTER:  qqqqqqqq
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

The valid bits in the extended Map Pointer Table entry or the Page Table entry are not set.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

f = Input/output address of the direct memory access controller (DMAC) encountering the fault (in hexadecimal).

g = The contents of the direct memory access (DMA) status register (in hexadecimal). See *System Maintenance Manual*, Appendixes C and D.

h = For Model 1:

`DMA CHANNEL STATUS REGISTER:` *xxxxxxxx*

For Model 2:

`CHANNEL DATA REGISTER:` *yyyyyyyy*

i = Input/output address of the channel the DMA believed caused the problem (in hexadecimal).

j = Status of the DMA channel (in hexadecimal). This is the dual serial channel register (DSCH). See *System Maintenance Manual*, Appendix E.

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k = First word entry in the DMA RAM for the device that failed (in hexadecimal).

l = Second word entry in the DMA RAM for the device that failed (in hexadecimal).

m = Third word entry in the DMA RAM for the device that failed (in hexadecimal).

n = Fourth word entry in the DMA RAM for the device that failed (in hexadecimal).

o = The contents of the contents of the DMA store data register (in hexadecimal).

p = The contents of the contents of the DMA incrementor (in hexadecimal).

q = The contents of the contents of the DMA buffer register (in hexadecimal).

x = Status of the channel under the DMAC that encountered the fault (in hexadecimal). See *System Maintenance Manual*, Appendix B.

y = Contents of the faulted channels data register (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Run diagnostics on the indicated unit.

5. ALARMS

None.

6. REFERENCES

Output Message
DGN-UNIT

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-DMA,ASW
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT DMA - ASW FAILURE X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e
DMA ADDRESS: fffffffff  DMA STATUS REGISTER:  gggggggg
h
CHANNEL ADDRESS: iiiiiiii CHANNEL STATUS REGISTER: jjjjjjjj
DMA RAM:  kkkkkkkk  llllllll  mmmmmmmm  nnnnnnnn
DMA STORE DATA REGISTER:  oooooooo  DMA INCREMENTOR:  pppppppp
DMA BUFFER REGISTER:  qqqqqqqq
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

The named channel did not return all-seems-well (ASW) to the direct memory access controller (DMAC).

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

f = Input/output address of the DMAC encountering the fault (in hexadecimal).

g = Direct memory access (DMA) status register (in hexadecimal). See the *System Maintenance Manual*, Appendixes C and D.

h = For Model 1:

`DMA CHANNEL STATUS REGISTER:` *xxxxxxxx*

For Model 2:

`CHANNEL DATA REGISTER:` *yyyyyyyy*

i = Input/output address of the channel the DMA believed caused the problem (in hexadecimal).

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j = Status of the DMA channel (in hexadecimal). This is the dual serial channel register (DSCH). See the *System Maintenance Manual*, Appendix E.

k = First word entry in the DMA RAM for the device that failed (in hexadecimal).

l = Second word entry in the DMA RAM for the device that failed (in hexadecimal).

m = Third word entry in the DMA RAM for the device that failed (in hexadecimal).

n = Fourth word entry in the DMA RAM for the device that failed (in hexadecimal).

o = The contents of the DMA store data register (in hexadecimal).

p = The contents of the DMA incrementor (in hexadecimal).

q = The contents of the DMA buffer register (in hexadecimal).

x = Status of the channel under the DMAC that encountered the fault (in hexadecimal). See the *System Maintenance Manual*, Appendix B.

y = Contents of the faulted channels data register (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time the error interrupt.

4. ACTION TO BE TAKEN

Run diagnostics on the indicated unit.

5. ALARMS

None.

6. REFERENCES

Output Message
`DGN-UNIT`

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-DMA,CHNL
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT DMA - CHANNEL REQUEST ERROR X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e
DMA ADDRESS: ffffffff  DMA STATUS REGISTER:  gggggggg
h
CHANNEL ADDRESS: iiiiiiii CHANNEL STATUS REGISTER: jjjjjjjj
DMA RAM:  kkkkkkkk  lllllll  mmmmmmmm  nnnnnnnn
DMA STORE DATA REGISTER:  oooooooo  DMA INCREMENTOR:  pppppppp
DMA BUFFER REGISTER:  qqqqqqqq
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

A device made a request with an invalid direct memory access (DMA) random access memory (RAM) entry.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

f = Input/output address of the direct memory access controller (DMAC) encountering the fault (in hexadecimal).

g = The contents of the direct memory access (DMA) status register (in hexadecimal). See the *System Maintenance Manual*, Appendixes C and D.

h = For Model 1:

`DMA CHANNEL STATUS REGISTER:` *xxxxxxxx*

For Model 2:

`CHANNEL DATA REGISTER:` *yyyyyyyy*

i = Input/output address of the channel the DMA believed caused the problem (in hexadecimal).

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j = Status of the DMA channel (in hexadecimal). This is the dual serial channel register (DSCH). See the *System Maintenance Manual*, Appendix E.

k = First word entry in the DMA RAM for the device that failed (in hexadecimal).

l = Second word entry in the DMA RAM for the device that failed (in hexadecimal).

m = Third word entry in the DMA RAM for the device that failed (in hexadecimal).

n = Fourth word entry in the DMA RAM for the device that failed (in hexadecimal).

o = Contents of the DMA store data register (in hexadecimal).

p = Contents of the DMA incrementor (in hexadecimal).

q = Contents of the DMA buffer register (in hexadecimal).

x = Status of the channel under the DMAC that encountered the fault (in hexadecimal). See the *System Maintenance Manual*, Appendix B.

y = Contents of the faulted channels data register (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Run diagnostics on the indicated unit.

5. ALARMS

None.

6. REFERENCES

Output Message
`DGN-UNIT`

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-DMA,RAM
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT DMA RAM PARITY FAILURE X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e
DMA ADDRESS:  ffffffff  DMA STATUS REGISTER:  gggggggg
DMA RAM:  hhhhhhhh  iiiiiiii  jjjjjjjj  kkkkkkkk
DMA STORE DATA REGISTER:  llllllll  DMA INCREMENTOR:  mmmmmmmm
DMA BUFFER REGISTER:  nnnnnnnn

REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

A parity error occurred on the direct memory access (DMA) controller (DMAC) internal random access memory (RAM).

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

f = Input/output address of the DMAC encountering the fault (in hexadecimal).

g = DMA status register (in hexadecimal). See the *System Maintenance Manual*, Appendixes C and D.

h = First word entry in the DMA RAM for the device that failed (in hexadecimal).

i = Second word entry in the DMA RAM for the device that failed (in hexadecimal).

j = Third word entry in the DMA RAM for the device that failed (in hexadecimal).

k = Fourth word entry in the DMA RAM for the device that failed (in hexadecimal).

l = Internal DMAC register contents (in hexadecimal).

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m = Internal DMAC register contents (in hexadecimal).

n = Internal DMAC register contents (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Run diagnostics on the indicated unit.

5. ALARMS

None.

6. REFERENCES

Output Message
`DGN-UNIT`

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ID . . . . . REPT-DMA,ROM
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT DMA - ROM PARITY FAILURE X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e
DMA ADDRESS:  ffffffff  DMA STATUS REGISTER:  gggggggg
DMA RAM:  hhhhhhhh  iiiiiiii  jjjjjjjj  kkkkkkkk
DMA STORE DATA REGISTER:  lllllll  DMA INCREMENTOR:  mmmmmmmm
DMA BUFFER REGISTER:  nnnnnnnn
o
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

A parity error was detected in the direct memory access (DMA) controller (DMAC) read only memory (ROM).

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active CU unit.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

f = Input/output address of the DMAC encountering the fault (in hexadecimal).

g = The contents of the DMA status register (in hexadecimal). See the *System Maintenance Manual*, Appendixes C and D.

h = First word entry in the DMA RAM for the device that failed (in hexadecimal).

i = Second word entry in the DMA RAM for the device that failed (in hexadecimal).

j = Third word entry in the DMA RAM for the device that failed (in hexadecimal).

k = Fourth word entry in the DMA RAM for the device that failed (in hexadecimal).

l = Internal DMAC register contents (in hexadecimal).

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m = Internal DMAC register contents (in hexadecimal).

n = Internal DMAC register contents (in hexadecimal).

o = For Model 1:

`CHANNEL DATA REGISTER:` *xxxxxxxx*

For Model 2:

a blank line

x = Contents of the faulted channels data register (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Run diagnostics on the indicated unit.

5. ALARMS

None.

6. REFERENCES

Output Message
`DGN-UNIT`

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ID . . . . . REPT-DMQ
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT DMQ INHIBIT` *a* `ACTIVE`
`[,REMAINING TIME` *b* `MIN.]`

[2] `REPT DMQ ATTEMPT TO DISABLE INHIBIT` *a* `FAILED`

2. REASON FOR OUTPUT

Format 1 reports inhibited maintenance request sources. The source may have been disallowed for an infinite time span, or a finite time span.

Format 2 reports that inhibited maintenance request source *a* reached the end of its inhibited time, but the clear of the inhibit failed.

3. VARIABLE FIELD DEFINITIONS

a = Source of maintenance requests; for example, automatic diagnostic process (ADP).

b = Time, in minutes, left until requests will be allowed from source *a*.

4. ACTION TO BE TAKEN

Format 1 requires no action.

For Format 2, use the `ALW:DMQ` input message to manually allow the inhibited request source *a*. Seek technical assistance for the cause of the problem.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 92 and 93.
Format 2 has an OMDB key of 92.

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Input Messages
ALW:DMQ
INH:DMQ
OP:DMQ

Output Message
ALW-DMQ

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ID . . . . . REPT-DUI
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MAIPR . . . . . MAINT,

1. FORMAT

This message has three formats.

[1] `REPT DUI` *a* {`ERROR` *b* [`COMPL CODE` *c*] |
`UNIDENTIFIED RESPONSE WD1=`*d* `WD2=`*e*}

[2] `REPT DUI` *a* `STARTED`

[3] `REPT DUI` *a* `STOPPED`

2. REASON FOR OUTPUT

Format 1 reports a direct user interface (DUI) subdevice-related software or hardware error.

Format 2 reports that the DUI has changed state from STBY to ACT. A DUI will change to ACT state when the level 2 connection is established, and the data link is in information transfer state.

Format 3 reports that the DUI has changed state from ACT to STBY. A DUI will change to STBY state when the level 2 connection is terminated, and the level 1 connection remains established.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies, in hexadecimal notation, the point within the input/output driver (IODRV) where a software or hardware error was detected. See output IOP Appendix F, `IOP-APPF`.

c = Hardware error type. See output IOP Appendix A, `IOP-APPA`.

d = First word of an unidentified completion report.

e = Second word of an unidentified completion report.

4. ACTION TO BE TAKEN

Format 1 indicates error conditions that could cause the removal of a unit. Any removed unit should be repaired and then restored to service.

Formats 2 and 3 are informational messages and indicate that the DUI has changed states. No action is necessary.

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5. ALARMS

Format 1 has no alarm; it is an automatically-generated report for information only.

Formats 2 and 3 have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 208.
Formats 2 and 3 have an OMDB key of 308.

Output Appendixes
IOP-APPA
IOP-APPF

Input Messages
CLR:IODRV
DGN:DUIC
RMV:DUI
RST:DUI
UPD:OMDB

Output Messages
RCVRY,DUI
RCVRY,DUIC
RCVRY,IOP
REPT,DUIC
REPT,IOP
REPT-RCVRY,DUI
REPT-RCVRY,DUIC
REPT-RCVRY,IOP

Practice 254-301-110 *Input-Output Processor Peripheral Controllers*
Description and Theory of Operation
Lucent Technologies 3B20D Model 1 Computer

ID . . . . . REPT-DUIC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT DUIC` *a* {`ERROR` *b* [`COMPL CODE` *c*] |
`UNIDENTIFIED RESPONSE WD1=`*d* `WD2=`*e*}

[2] `REPT DUIC` *a* `CODE VERSION X'`*f*

2. REASON FOR OUTPUT

Format 1 reports a direct user interface controller (DUIC) related software or hardware error.

Format 2 is output during the restoral of the unit.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies point within input/output processor driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. See output IOP Appendix F, `IOP-APPF`.

c = Hardware error error type, in hexadecimal notation. See output IOP Appendix A, `IOP-APPA`.

d = First word of an unidentifiable completion report.

e = Second word of an unidentifiable completion report.

f = Peripheral controller pump code version.

4. ACTION TO BE TAKEN

These error messages indicate error conditions that could cause the removal of a unit. Any removed unit must be repaired and restored to service. No action is necessary for the message in format 2 unless the controller and/or its subdevices are not acting normal, or could not be restored. Contact the service organization with the code version which was used.

5. ALARMS

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 208.
Format 2 has an OMDB key of 220.

Output Appendixes
`IOP-APPA`
`IOP-APPF`

Input Messages
`CLR:IODRV`
`DGN:DUIC`
`RMV:DUIC`
`RST:DUIC`

Output Messages
`RCVRY,DUIC`
`RCVRY,IOP`
`REPT-IOP`
`REPT-RCVRY,DUIC`
`REPT-RCVRY,IOP`

Practice 254-301-110 *Input-Output Processor Peripheral Controllers*
Description and Theory of Operation
Lucent Technologies 3B20D Model 1 Computer

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WARNING
INAPPROPRIATE USE OF THIS MESSAGE MAY INTERRUPT OR DEGRADE SERVICE. READ PURPOSE CAREFULLY.

ID . . . . . REPT-EAI-A
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `REPT EAI SANITY TIMERS ARE INHIBITED`

[2]
```
REPT EAI BACKUP ROOT SELECTED ON EAI PAGE
            CURRENTLY RUNNING IN ROOT
            PLEASE REMOVE THIS SELECTION
            UNLESS PREPARING TO BOOT BACKUP ROOT
```

[3]
```
REPT EAI MINIMUM CONFIGURATION SELECTED ON EAI PAGE
            CURRENTLY RUNNING IN FULL CONFIGURATION
            PLEASE REMOVE THIS SELECTION
            UNLESS PREPARING TO BOOT MINIMUM CONFIGURATION
```

[4]
```
REPT EAI ROOT SELECTED ON EAI PAGE
            CURRENTLY RUNNING IN BACKUP ROOT
            PLEASE REMOVE THIS SELECTION
            UNLESS PREPARING TO BOOT ROOT
```

[5]
```
REPT EAI ** WARNING ** a ON CU b
c
d
e
```

[6] `REPT EAI APPLICATION PARAMETER f IS SET`

2. REASON FOR OUTPUT

Format 1 reports that the sanity timers are inhibited.

****WARNING****

The system's ability to recover from errors is reduced when the sanity timers are inhibited. The sanity timers are not inhibited in normal operation.

Formats 2, 3, and 4 report that the root, backup root, or minimum configuration is selected and the system is not currently running in that mode. To avoid inadvertently booting the system in the wrong mode, these selections should only be made just prior to booting the system.

Format 5 applies only for the 3B21D machines. Format 5 has four messages. The messages are output as a result of either inhibiting emergency action interface (EAI) hardware error reporting via a craft command, or inhibiting EAI hardware error interrupt due to excessive errors.

```
REPT EAI ** WARNING ** EAI ERROR THRESHOLD EXCEEDED ON CU b.
         ** WARNING ** ATTEMPTED SOFT SWITCH FAILED.
         ** WARNING ** EAI ERROR REPORTING INHIBITTED.
         ** WARNING ** DIAGNOSE AND REPLACE FAULTY CC BOARD.
```

This indicates that the error threshold was exceeded on the on-line central controller (CC) EAI hardware and an attempt to switch to the other CC failed.

```
REPT EAI ** WARNING ** EAI ERROR THRESHOLD EXCEEDED ON CU b.
         ** WARNING ** SOFT SWITCH COMPLETED.
         ** WARNING ** EAI ERROR REPORTING INHIBITTED.
         ** WARNING ** DIAGNOSE AND REPLACE FAULTY CC BOARD.
```

This indicates that the error threshold was exceeded on the off-line CC EAI hardware. The machine has switched to the currently-active processor due to the error.

```
REPT EAI ** WARNING ** EAI ERROR INTERRUPT INHIBITTED ON CU b.
         ** WARNING ** USE ALW:EAIINT COMMAND TO ENABLE THE INTERRUPT.
```

This indicates that EAI error reporting has been inhibited by a software command.

```
REPT EAI ** WARNING ** EAI ERROR REPORTING INHIBITTED FOR OVER 24 HOURS ON CU b.
         ** WARNING ** AUTOMATICALLY ENABLING EAI ERROR REPORTING.
```

This indicates that the EAI error reporting has been inhibited by a software command for more than 24 hours. Fault recovery software within the system is automatically enabling this error reporting.

Format 6 reports that an application parameter has been entered, but not followed by a manual initialization. To avoid inadvertently performing a manual initialization with an unknown application parameter set, application parameters should only be input just prior to a manual initialization.

3. VARIABLE FIELD DEFINITIONS

a = A string defining one of three possible error types:

```
** WARNING ** EAI ERROR THRESHOLD EXCEEDED ON CU b.
** WARNING ** EAI ERROR INTERRUPT INHIBITTED ON CU b.
** WARNING ** EAI ERROR REPORTING INHIBITTED FOR OVER 24 HOURS ON CU b.
```

b = CU member number.

c = A string defining one of four possible error types:

```
** WARNING ** ATTEMPTED SOFT SWITCH FAILED.
** WARNING ** SOFT SWITCH COMPLETED.
** WARNING ** USE ALW:EAIINT COMMAND TO ENABLE THE INTERRUPT.
** WARNING ** AUTOMATICALLY ENABLING EAI ERROR REPORTING.
```

SEE PROPRIETARY NOTICE ON COVER PAGE

d = Blank line or a string defining one of two possible error types:

```
** WARNING ** EAI ERROR REPORTING INHIBITTED.
** WARNING ** DIAGNOSE AND REPLACE FAULTY CC BOARD.
```

e = Blank line or the following string.

```
** WARNING ** DIAGNOSE AND REPLACE FAULTY CC BOARD.
```

f = Application parameter that is currently set.

4. ACTION TO BE TAKEN

For Format 1, remove the inhibit sanity timer selection on the EAI page of the maintenance terminal.

For Formats 2, 3, and 4, remove the root, backup root, or minimum configuration selection on the EAI page of the maintenance terminal.

For Format 5, do the following.

1. For the Type 1 message, restore the other CU and switch to that CU. Run diagnostics on the faulty CU. If the diagnostic fails, replace the CC pack that contains the EAI circuitry and restore the CU. Forward the diagnostic results, the information from the ERLOG and ROP output, to the next level of support.
2. For the Type 2 message, run diagnostics on the faulty CU. If the diagnostic fails, replace the CC pack that contains the EAI circuitry and restore the CU. Forward the diagnostic results, the information from the ERLOG and ROP output, to the next level of support.
3. For the Type 3 message, re-enable reporting of the EAI hardware errors.
4. The Type 4 message is for information only, and no action is needed.

For Format 6, clear the application parameter, using poke 43 (Clr Appl Param) or poke 14 (CLR EAI).

5. ALARMS

If a minor alarm occurs, take action as indicated in the report.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 659.
Formats 2, 3, and 4 have OMDB keys of 629 and 647.
Format 5 has an OMDB key of 692.
Format 6 has an OMDB key of 703.

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WARNING
INAPPROPRIATE USE OF THIS MESSAGE MAY INTERRUPT OR DEGRADE SERVICE. READ PURPOSE CAREFULLY.

ID . . . . . REPT-EAI-B
GENERIC . . . . . UNIX RTR R21.27 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `REPT EAI SANITY TIMERS ARE INHIBITED`

****WARNING****
The system's ability to recover from errors is reduced when the sanity timers are inhibited. The sanity timers are not inhibited in normal operation.

[2]
```
REPT EAI BACKUP ROOT SELECTED ON EAI PAGE
            CURRENTLY RUNNING IN ROOT
            PLEASE REMOVE THIS SELECTION
            UNLESS PREPARING TO BOOT BACKUP ROOT
```

[3]
```
REPT EAI MINIMUM CONFIGURATION SELECTED ON EAI PAGE
            CURRENTLY RUNNING IN FULL CONFIGURATION
            PLEASE REMOVE THIS SELECTION
            UNLESS PREPARING TO BOOT MINIMUM CONFIGURATION
```

[4]
```
REPT EAI ROOT SELECTED ON EAI PAGE
            CURRENTLY RUNNING IN BACKUP ROOT
            PLEASE REMOVE THIS SELECTION
            UNLESS PREPARING TO BOOT ROOT
```

[5]
```
REPT EAI a ON CU b
c
d
e
```

[6] `REPT EAI APPLICATION PARAMETER f IS SET`

[7]
```
REPT EAI OFF-NORMAL STATUS
    g
```

[8]
```
REPT EAI ALTERNATE BOOT DISK MISMATCH X'h
  MTTYC 0 AND MTTYC 1 HARDWARE OR FIRMWARE ARE INCONSISTENT
```

[9]
```
REPT EAI BOOT DISK SELECTION
  MHD = i STATUS = k [X'l]
  MHD = j STATUS = k [X'l]
```

```
[10]   REPT EAI BOOT DISK SELECTION
         MHD = i STATUS = k [X'l]
         MHD = j STATUS = k [X'l]
         DIFFERS FROM CURRENT DUPLEXED BOOT DISK PAIR
         PLEASE REMOVE THIS SELECTION UNLESS PREPARING TO BOOT
```

2. REASON FOR OUTPUT

Format 1 reports that the sanity timers are inhibited.

Formats 2, 3, and 4 report that the root, backup root, or minimum configuration is selected and the system is not currently running in that mode. To avoid inadvertently booting the system in the wrong mode, these selections should only be made just prior to booting the system.

Format 5 applies only for the 3B21D machines. Format 5 has four messages. The messages are output as a result of either inhibiting emergency action interface (EAI) hardware error reporting via a craft command, or inhibiting EAI hardware error interrupt due to excessive errors.

```
REPT EAI ** WARNING ** EAI ERROR THRESHOLD EXCEEDED ON CU b.
         ** WARNING ** ATTEMPTED SOFT SWITCH FAILED.
         ** WARNING ** EAI ERROR REPORTING INHIBITTED.
         ** WARNING ** DIAGNOSE AND REPLACE FAULTY CC BOARD.
```

This indicates that the error threshold was exceeded on the on-line central controller (CC) EAI hardware and an attempt to switch to the other CC failed.

```
REPT EAI ** WARNING ** EAI ERROR THRESHOLD EXCEEDED ON CU b.
         ** WARNING ** SOFT SWITCH COMPLETED.
         ** WARNING ** EAI ERROR REPORTING INHIBITTED.
         ** WARNING ** DIAGNOSE AND REPLACE FAULTY CC BOARD.
```

This indicates that the error threshold was exceeded on the off-line CC EAI hardware. The machine has switched to the currently-active processor due to the error.

```
REPT EAI ** WARNING ** EAI ERROR INTERRUPT INHIBITTED ON CU b.
         ** WARNING ** USE ALW:EAIINT COMMAND TO ENABLE THE INTERRUPT.
```

This indicates that EAI error reporting has been inhibited by a software command.

```
REPT EAI ** WARNING ** EAI ERROR REPORTING INHIBITTED FOR OVER 24 HOURS ON CU a.
         ** WARNING ** AUTOMATICALLY ENABLING EAI ERROR REPORTING.
```

This indicates that the EAI error reporting has been inhibited by a software command for more than 24 hours. Fault recovery software within the system is automatically enabling this error reporting.

Format 6 reports that an application parameter has been entered, but not followed by a manual initialization. To avoid inadvertently performing a manual initialization with an unknown application parameter set, application parameters should only be input just prior to a manual initialization.

Format 7 reports EAI off-normal selections. One or more fields are displayed whenever an

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off-normal condition is detected. This message can only be displayed when the hardware platform is configured with the Recovery from Alternate Boot Disk Feature.

Format 8 reports an inconsistency between the MTTYC 0 and MTTYC 1 hardware or firmware. This message can only be displayed when the hardware platform is configured with the Recovery from Alternate Boot Disk Feature.

Formats 9 and 10 can can only be displayed when the hardware platform is configured with the Recovery from Alternate Boot Disk Feature. These output messages report the status of selected MHDs **following** any change to the EAI page's Boot MHDs selection (Pokes 28 and 29) or following the successful execution of the CFR:DUPLEXDISKS command. These messages are periodically displayed until both selected disks are **BOOTABLE** and both selected disks are the same as the currently duplexed (mated) pair.

3. VARIABLE FIELD DEFINITIONS

a = A string defining one of three possible error types:

```
** WARNING ** EAI ERROR THRESHOLD EXCEEDED ON CU b.
** WARNING ** EAI ERROR INTERRUPT INHIBITTED ON CU b.
** WARNING ** EAI ERROR REPORTING INHIBITTED FOR OVER 24 HOURS ON CU b.
```

b = CU member number.

c = A string defining one of four possible error types:

```
** WARNING ** ATTEMPTED SOFT SWITCH FAILED.
** WARNING ** SOFT SWITCH COMPLETED.
** WARNING ** USE ALW:EAIINT COMMAND TO ENABLE THE INTERRUPT.
** WARNING ** AUTOMATICALLY ENABLING EAI ERROR REPORTING.
```

d = Blank line or a string defining one of two possible error types:

```
** WARNING ** EAI ERROR REPORTING INHIBITTED.
** WARNING ** DIAGNOSE AND REPLACE FAULTY CC BOARD.
```

e = Blank line or the following string.

```
** WARNING ** DIAGNOSE AND REPLACE FAULTY CC BOARD.
```

f = Application parameter that is currently set.

g = Off-normal selection displaying one or more of the following types:

CU FORCED ONLINE
Indicates that a CU is forced on-line. View the EAI screen to determine which CU is selected.

PRI / SEC DISK
Either the Primary or Secondary Disk has been selected. View the EAI screen to determine which option has been selected.

BACKUP ROOT SELECTION IS SET
The Backup Root option has been selected while running in ROOT.

BACKUP ROOT SELECTION IS CLR
The Backup Root option has been cleared while running in BROOT

MIN CONFIG
The Min Config option has been selected.

INHIBIT SANITY TIMER
The Inhibit Sanity Timer option has been selected.

INH HDWCHK
The Inhibit Hardware Check option has been selected.

INH SFTCHK
The Inhibit Software Check option has been selected.

INH ERRCHK
The Inhibit Error Check option has been selected.

INH CACHE
The Inhibit Cache option has been selected.

APPL PARAM
An Application Parameter has been entered on the EAI.

ALT BOOT DEV
An Alternate Boot Device has been selected. View the EAI screen to determine the boot device.

h = Equipage status of the MTTYC boards provided by the IO Driver to PCPAUD and an audit of the in-core ECD MTTY UCB equipage field.

The equipage status word is eight hexadecimal digits of the form `aabbcccc`

`aa` = Equipage value for MTTYC 0

`bb` = Equipage value for MTTYC 1.

`cccc` = Bitfield with the following definitions:

0001 The Recovery from Alternate Boot Disk (ABD) feature is available

0002 System is operating with an ABD selected

0004 One MTTYC does not have ABD; the other MTTYC does have ABD

i = MHD unit number.
See Input/Output Member Numbers Appendix, `MEM-NUM-APPC`, Table C.

j = MHD unit number.
See Input/Output Member Numbers Appendix, `MEM-NUM-APPC`, Table C.

k = MHD status.

BOOTABLE
The MHD can be used as a boot disk.

RESERVED
The MHD is currently reserved by a system level process. This situation can occur when a maintenance action is in progress, for example, when an MHD is being restored.

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NOT BOOTABLE
The MHD is not bootable. Variable *l* provides additional information.

UNKNOWN
The status of the MHD could not be obtained. Check the ROP (Read-only printer) for error output messages that may help resolve the reason for this status occurring.

l = Error code when Variable *k* is **NOT BOOTABLE**.
The error code indicates why the unit was not marked as a valid boot disk. See Bootdiskchk Codes Appendix, `BOOTDISKCHK-APP`, Result Codes.

4. ACTION TO BE TAKEN

For Format 1, remove the inhibit sanity timer selection on the EAI page of the maintenance terminal.

For Formats 2, 3, and 4, remove the root, backup root, or minimum configuration selection on the EAI page of the maintenance terminal.

For Format 5, do the following.

1. For the Type 1 message, restore the other CU and switch to that CU. Run diagnostics on the faulty CU. If the diagnostic fails, replace the CC pack that contains the EAI circuitry and restore the CU. Forward the diagnostic results, the information from the ERLOG and ROP output, to the next level of support.
2. For the Type 2 message, run diagnostics on the faulty CU. If the diagnostic fails, replace the CC pack that contains the EAI circuitry and restore the CU. Forward the diagnostic results, the information from the ERLOG and ROP output, to the next level of support.
3. For the Type 3 message, re-enable reporting of the EAI hardware errors.
4. The Type 4 message is for information only, and no action is needed.

For Format 6, clear the application parameter, using poke 43 (Clr Appl Param) or poke 14 (CLR EAI).

For Format 7, no action is necessary. This is an informational output message that displays one or more off-normal conditions into a single message.

For Format 8, MTTYC 0 and MTTYC 1 should be consistent in terms of the type of hardware circuit packs and the flash memory downloaded on the circuit packs. Determine which circuit pack is causing the inconsistency and either replace it with an MTTYC that supports the Recovery from Alternate Boot Disk feature; or, if the circuit pack is the same type, execute diagnostics to download the flash memory. If the ECD contains an invalid equipage value, correct the ECD record.

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For Format 9, take action based on the description of the error. If one of the disks is **NOT BOOTABLE**, it is essential to make that disk **BOOTABLE** again. If the description of the error is not self-explanatory, seek technical assistance.

For Format 10, re-boot the system so that the selected boot disks become the duplexed (mated) pair, **or on the EAI page**, enter the appropriate Boot MHD pokes so that the selected values are the same as the duplexed (mated) pair. To determine the duplexed pair, check the RTR 102 page or the MHD status page, then use the 28 or 29 EAI poke to correct the boot disk selection. In this latter case, it is not necessary to re-boot. For example, if MHD 0 and MHD 15 are the currently active disks (the duplexed pair) and the output message is reporting status for MHD 0 and MHD 1, on the EAI page, enter a '28', then '15', then 'y'.

5. ALARMS

If a minor alarm occurs, take action as indicated in the report.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 659.
Formats 2, 3, and 4 have OMDB keys of 629 and 647.
Format 5 has an OMDB key of 692.
Format 6 has an OMDB key of 703.
Format 7 has an OMDB key of 778.
Format 8 have OMDB keys of 775 and 776.
Formats 9 and 10 have OMDB keys of 771 and 772.

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ID . . . . . REPT-ECDMAN
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . AUDT

1. FORMAT

`REPT ECDMAN` *a*

2. REASON FOR OUTPUT

To report that equipment configuration data manager (ECDMAN) has reached its maximum fault count.

3. VARIABLE FIELD DEFINITIONS

a = Fault count.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 170.

ID . . . . . REPT-EMER,DUMP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . SIM

1. FORMAT

```
REPT EMERGENCY DUMP PARTITION FULL
```

2. REASON FOR OUTPUT

To report that data has been written into the emergency dump partition on disk.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Use the `OP:EMERSTAT` command to learn the status of the data in the emergency dump partition.

Use the `COPY:TAPE;EMERDMP` command to copy the data to magnetic tape.

Use the `CLR:EMERDMP` command to zero the indicator flag that triggers this output message.

Send the tape and the status printout to a technical assistance center for analysis.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key
This message has an OMDB key of 450.

Input Messages
`CLR:EMERDMP`
`COPY:T;EMERDMP`
`OP:EMERSTAT`

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ID . . . . . REPT-ERRPORT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `REPT ERRPORT OPEN FAILURE ERRNO` *a*

[2] `REPT ERRPORT READ FAILURE ERRNO` *a*

[3] `REPT ERRPORT` *b* `MESSAGES LOST`

[4] `REPT ERRPORT PREPHASE MESSAGE`

2. REASON FOR OUTPUT

Format 1 reports that the computer error logging process (`errport`) is not able to open its special file `/dev/errport`.

Format 2 reports that the computer `errport` has encountered an error in its special file `/dev/errport`.

Format 3 reports that the computer `errport` has received output messages after its internal queue was full. These messages have been lost.

Format 4 reports that a message existed in the low core first-in, first-out (FIFO) queue before the computer phased.

3. VARIABLE FIELD DEFINITIONS

a = File access error code. See System Error Codes Output Appendix, `SYSERR-APP`.

b = Number of messages lost.

4. ACTION TO BE TAKEN

For Formats 1 and 2, check the status of the file and seek immediate technical assistance. (`/dev/errport` should be present; it should be a FIFO special file and have read and write permissions.)

For Formats 3 and 4, no action is necessary.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

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6. REFERENCES

OMDB Key
Formats 1, 2, and 3 have an OMDB key of 117.

Output Appendix
SYSERR-APP

ID . . . . . REPT-ERSLOT-A
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . EIH

1. FORMAT

This message has eleven formats.

[1]
```
REPT ERSLOT
BAD OST X'a
FAULTY UNIT:    CU b
TIME OF ERROR: c d

   SAVE STATE
PA: eeeeeeee  PSW: ffffffff  PSBR: gggggggg  SSBR: hhhhhhhh

 GENERAL REGISTERS
0: iiiiiiii  1: iiiiiiii  2: iiiiiiii  3: iiiiiiii
4: iiiiiiii  5: iiiiiiii  6: iiiiiiii  7: iiiiiiii
8: iiiiiiii  9: iiiiiiii  A: iiiiiiii  B: iiiiiiii
C: iiiiiiii  D: iiiiiiii  E: iiiiiiii  F: iiiiiiii
UTILITY ID: jjjjjjjj  PROCESS NUMBER: kkkkkkkk

OST CODE: llllllll
OST ARGUMENTS:
ARG1: mmmmmmmm  ARG2: mmmmmmmm  ARG3: mmmmmmmm  ARG4: mmmmmmmm
ARG5: mmmmmmmm  ARG6: mmmmmmmm  ARG7: mmmmmmmm
REAL TIME CLOCK: nnnnnnnn
```

[2]
```
REPT ERSLOT
IO CHANNEL ERROR X'a
ONLINE CU: b
FAULTY UNIT: o p
TIME OF ERROR: c d
CHANNEL ADDRESS:  qqqqqqqq  CHANNEL STATUS REGISTER:  rrrrrrrr
REAL TIME CLOCK: nnnnnnnn
```

[3]
```
REPT ERSLOT
l[1] X'a
ONLINE CU: b
FAULTY UNIT: o p
TIME OF ERROR: c d
DMA ADDRESS:  ssssssss  DMA STATUS REGISTER:  tttttttt
DMA RAM:  uuuuuuuu  vvvvvvvv  wwwwwwww  xxxxxxxx
DMA STORE DATA REGISTER:  yyyyyyyy  DMA INCREMENTOR:  zzzzzzzz
```

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```
        DMA BUFFER REGISTER:  a1a1a1a1a1a1a1a1
        [ CHANNEL DATA REGISTER:   b1b1b1b1b1b1b1b1 ]
        REAL TIME CLOCK: nnnnnnnn

[4]     REPT ERSLOT
        m1 X'a
        ONLINE CU: b
        FAULTY UNIT: o p
        TIME OF ERROR: c d
        DMA ADDRESS:  ssssssss  DMA STATUS REGISTER:  tttttttt
        n1
        CHANNEL ADDRESS: qqqqqqqq CHANNEL STATUS REGISTER: rrrrrrrr
        DMA RAM:  uuuuuuuu  vvvvvvvv  wwwwwwww  xxxxxxxx
        DMA STORE DATA REGISTER:  yyyyyyyy  DMA INCREMENTOR:  zzzzzzzz
        DMA BUFFER REGISTER:  a1a1a1a1a1a1a1a1
        REAL TIME CLOCK: nnnnnnnn

[5]     REPT ERSLOT
        q1 X'a
        ONLINE CU: b
        FAULTY UNIT: o p
        TIME OF ERROR: c d

           SAVE STATE
        PA: eeeeeeee  PSW: ffffffff  PSBR: gggggggg  SSBR: hhhhhhhh

         GENERAL REGISTERS
        0: iiiiiiii  1: iiiiiiii  2: iiiiiiii  3: iiiiiiii
        4: iiiiiiii  5: iiiiiiii  6: iiiiiiii  7: iiiiiiii
        8: iiiiiiii  9: iiiiiiii  A: iiiiiiii  B: iiiiiiii
        C: iiiiiiii  D: iiiiiiii  E: iiiiiiii  F: iiiiiiii
        UTILITY ID: jjjjjjjj  PROCESS NUMBER: kkkkkkkk
        [ CHANNEL DATA REGISTER:   b1b1b1b1b1b1b1b1 ]
        REAL TIME CLOCK: nnnnnnnn

[6]     REPT ERSLOT
        r1 X'a
        ONLINE CU: b
        FAULTY UNIT: o p
        TIME OF ERROR: c d
        HARDWARE STATUS REGISTER:   c1c1c1c1c1c1c1c1
        REAL TIME CLOCK: nnnnnnnn

[7]     REPT ERSLOT
        s1 X'a
        FAULTY UNIT:    CU b
        TIME OF ERROR: c d
```

```
   SAVE STATE
PA: eeeeeeee  PSW: ffffffff  PSBR: gggggggg  SSBR: hhhhhhhh

 GENERAL REGISTERS
0: iiiiiiii  1: iiiiiiii  2: iiiiiiii  3: iiiiiiii
4: iiiiiiii  5: iiiiiiii  6: iiiiiiii  7: iiiiiiii
8: iiiiiiii  9: iiiiiiii  A: iiiiiiii  B: iiiiiiii
C: iiiiiiii  D: iiiiiiii  E: iiiiiiii  F: iiiiiiii
UTILITY ID: jjjjjjj  PROCESS NUMBER: kkkkkkkk
REAL TIME CLOCK: nnnnnnnn
```

[8]
```
REPT ERSLOT
INVALID MAINTENANCE CHANNEL ORDER X'a
ONLINE CU: b
FAULTY UNIT: o p
TIME OF ERROR: c d

   SAVE STATE
PA: eeeeeeee  PSW: ffffffff  PSBR: gggggggg  SSBR: hhhhhhhh

 GENERAL REGISTERS
0: iiiiiiii  1: iiiiiiii  2: iiiiiiii  3: iiiiiiii
4: iiiiiiii  5: iiiiiiii  6: iiiiiiii  7: iiiiiiii
8: iiiiiiii  9: iiiiiiii  A: iiiiiiii  B: iiiiiiii
C: iiiiiiii  D: iiiiiiii  E: iiiiiiii  F: iiiiiiii
UTILITY ID: jjjjjjj  PROCESS NUMBER: kkkkkkkk
ONLINE MCH STATUS:   d1 d1 d1 d1 d1 d1 d1 d1
REAL TIME CLOCK: nnnnnnnn
```

[9]
```
REPT ERSLOT
OTHER STORE TIME-OUT ERROR   X'a
ONLINE CU: b
FAULTY UNIT: e1 f1 o p
TIME OF ERROR: c d
REAL TIME CLOCK: nnnnnnnn
```

[10]
```
REPT ERSLOT
INVALID ERROR INTERRUPT TYPE IS: g1 X'a
ER: h1h1h1h1h1h1h1h1 UER: i1i1i1i1i1i1i1i1 UER1: j1j1j1j1j1j1j1j1
REAL TIME CLOCK: nnnnnnnn
```

[11]
```
REPT ERSLOT
INVALID ERROR NUMBER: k1 SEQ NO: X'a
```

2. REASON FOR OUTPUT

To report error interrupts handled by the error interrupt handler (EIH) that are not associated with the main memory. Among the errors handled are input/output errors, direct memory access (DMA) errors, other control unit (CU) hardware errors, and software errors.

Format 1 indicates that the kernel determined that a process attempted an operating system trap (OST) with a bad argument.

Format 2 indicates that a faulty unit encountered a fatal error condition. The channel status and channel address are provided in the report.

Format 3 has six error types.

1. `MY STORE A DURING DMA`
   This error type indicates the DMA controller (DMAC) encountered a fatal main memory problem during DMA transfer. See the *System Maintenance Manual*, ERROR REGISTER DESCRIPTION section, error bit 6.
2. `MY STORE B DURING DMA`
   A device attempted to access a location in memory that is not physically equipped. See the *System Maintenance Manual*, ERROR REGISTER DESCRIPTION section, error bit 23.
3. `BAD PARITY ON DMA READ`
   The DMAC detected bad parity on its internal bus. This can be caused by a DMAC failure, or a request from a device that has not had its DMAC RAM block initialized.
4. `DMA RAM PARITY FAILURE`
   A parity error occurred on the DMAC internal RAM.
5. `CCIO - DATA PARITY FAILURE`
   A command received by the DMAC on a processor input/output (PIO) operation had bad parity.
6. `DMA - ROM PARITY FAILURE`
   A parity error was detected in the DMAC ROM.

Format 4 has six error types.

1. `BAD PARITY ON DIO BUS`
   The DMAC received bad parity from named CHANNEL ADDRESS device on data destined for the main memory during a DMA transfer.
2. `DIO - READY FAILURE`
   The named channel did not return a READY signal to the DMAC.
3. `DMA - ASW FAILURE`
   The named channel did not return all-seems-well (ASW) to the DMAC.
4. `DIO - ACKNOWLEDGE FAILURE`
   Either more than one or no channel responded to the DMAC.

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5. DMA - ADDRESS ERROR
   During the virtual to physical address translation, the DMAC found that the requested input/output access was not permitted to physical memory, or, during the data transfer, the data would have been written beyond the end of a segment.
6. DMA - CHANNEL REQUEST ERROR
   A device made a request with an invalid DMA RAM entry.

Format 5 has eleven error types.

1. PARITY DIVERT ERROR
   The named unit returned a word with bad parity.
2. PROTECTION VIOLATION
   A program tried to execute from a segment that did not have execute permission, or tried to write into a segment that did not have write permission.
3. OUT OF RANGE MEMORY REFERENCE
   A program tried to access unequipped memory.
4. OUT OF RANGE MEMORY REFERENCE (OTHER STORE)
   The off-line main memory considered the address to be out of range while the on-line memory did not. This usually indicates a problem with the off-line memory.
5. PRIVILEGED INSTRUCTION VIOLATION
   The program tried to execute one of the special instructions without a corresponding privilege bit set in the PSW.
6. BAD ALIGNMENT ON MEMORY REFERENCE
   This indicates software fault - the instruction executed with the wrong address (for example, a full-word instruction executed with a half-word address).
7. ILLEGAL OPERAND
   One of the operands specified in an instruction is invalid for the opcode.
8. ILLEGAL INSTRUCTION
   The data in the instruction buffer did not correspond to a valid instruction.
9. ILLEGAL STACK SWITCH
   The program attempted to switch to a private stack while running on a private stack, or attempted to switch to the kernel stack while it was already running on the kernel stack.
10. CCIO - COMMAND FAILURE
    A second programmed input/output order was sent to the DMAC before the first one was completed.
11. VIRTUAL ADDRESS OUT OF RANGE
    Microcode has determined that a virtual address is not mappable in a process's address space.

Format 6 has two error types.

1. 3/6 MAIN CHANNEL IO RESPONSE ERROR
   More than one device responded to an input/output address. See the *System Maintenance Manual*, ERROR REGISTER DESCRIPTION section, error bit 17.

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2. `3/6 MAIN CHANNEL ADDRESS SEQUENCING ERROR`
   Either an illegal 3-out-of-6 (3/6) code on the CCIO bus, or more than one input/output pulse point was active in the command to the channel. See the *System Maintenance Manual*, ERROR REGISTER DESCRIPTION section, error bit 18.

Format 7 has three error types.

1. `PINV - PAGE INVALID`
   A process attempted to access a page that is not in its page table.
2. `SIND - SEGMENT INDEX TOO LARGE`
   Microcode detected a segment index too large for the segment being accessed.
3. `SINV - SEGMENT INVALID`
   A process attempted to access a segment that is not in its segment table.

Format 8 indicates that the maintenance channel is faulty, or a maintenance channel order has been sent to a processor that is not disabled or marked off-line.

Format 9 indicates the off-line CU memory controller has not responded to a memory access.

Format 10 indicates EIH was dispatched to handle an error, but no error bit in the error registers was set.

Format 11 indicates an error type which EIH does not recognize occurred.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = CU member number.

c = The date in the form `mm/dd/yy`, month/day/year.

d = The time in the form `hh:mm:ss`, hours:minutes:seconds.

e = The program address at the time of error interrupt (in hexadecimal). For software requested initializations, this is the address of the phase OST and not the address where the problem was detected.

f = The processor status word (in hexadecimal). Among the information it contains are the execution level and the processor mode - the kernel mode, kernel process, supervisor process, or user process. See the *System Maintenance Manual*, Appendix P.

g = The contents of the primary segment base register (in hexadecimal).

h = The contents of the secondary segment base register (in hexadecimal).

i = The contents, in hexadecimal, of the 16 general-purpose registers.

`R9:` argument pointer
`RA:` frame pointer
`RB:` stack pointer

j = Process utility ID (in hexadecimal). See the *System Maintenance*

Manual, Process / Problem Table.

k = Process number (in hexadecimal).

l = OST code (in hexadecimal).

m = OST arguments (in hexadecimal).

n = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

o = Unit name.

p = Member number.

q = The input / output address, in hexadecimal, of the channel that caused the problem.

r = The contents, in hexadecimal, of the dual serial channel (DSCH) channel status register. See the *System Maintenance Manual*, Appendix E.

s = The input / output address, in hexadecimal, of the DMAC that encountered the fault.

t = The contents, in hexadecimal, of the DMA status register. See the *System Maintenance Manual*, Appendixes C and D.

u = First word entry in the DMA RAM for the device that failed (in hexadecimal).

v = Second word entry in the DMA RAM for the device that failed (in hexadecimal).

w = Third word entry in the DMA RAM for the device that failed (in hexadecimal).

x = Fourth word entry in the DMA RAM for the device that failed (in hexadecimal).

y = Internal DMAC register contents (in hexadecimal). This data represents the last data word either written or read from main store.

z = Internal DMAC register contents (in hexadecimal). This data represents the value of the DMA incrementor which is a counter used by the DMAC to increment the physical address, map address, and the transfer count during the store operation.

a[1] = Internal DMAC register contents (in hexadecimal). This register is used as a scratch register by microcode during the virtual to physical translation in a DMA access.

b[1] = Contents of the channel data register (CDR), also known as the CCIO bus data register (in hexadecimal).

c[1] = Contents of the hardware status register (in hexadecimal).

d[1] = On-line maintenance channel status (in hexadecimal).

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e^1 = Community name.

f^1 = Community number.

g^1 = The invalid error interrupt type.

h^1 = The contents of the error register (ER) (in hexadecimal). See the *System Maintenance Manual*, Appendix F.

i^1 = The contents of the microinterrupt error register (UER) (in hexadecimal). See the *System Maintenance Manual*, Appendix N.

j^1 = The contents of the UER1 (in hexadecimal). See the *System Maintenance Manual*, Appendix O.

k^1 = The invalid error number.

l^1 = A string defining one of six possible error types:

```
MY STORE DURING DMA
MY STORE DURING DMA
BAD PARITY ON DMA READ
DMA RAM PARITY FAILURE
CCIO - DATA PARITY FAILURE
DMA - ROM PARITY FAILURE
```

m^1 = A string defining one of six possible error types:

```
BAD PARITY ON DIO BUS
DIO - READY FAILURE
DMA - ASW FAILURE
DIO - ACKNOWLEDGE FAILURE
DMA - ADDRESS ERROR
DMA - CHANNEL REQUEST ERROR
```

n^1 = For Model 1:

DMA CHANNEL STATUS REGISTER: $o^1o^1o^1o^1o^1o^1o^1o^1$

For Model 2:

CHANNEL DATA REGISTER: $p^1p^1p^1p^1p^1p^1p^1p^1$

o^1 = Status, in hexadecimal, of the channel under the DMAC that encountered the fault. See the *System Maintenance Manual*, Appendix B.

p^1 = The contents, in hexadecimal, of the faulted channels data register.

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q^1 = A string defining one of eleven possible error types:

```
PARITY DIVERT ERROR
PROTECTION VIOLATION
OUT OF RANGE MEMORY REFERENCE
OUT OF RANGE MEMORY REFERENCE (OTHER STORE)
PRIVILEGED INSTRUCTION VIOLATION
BAD ALIGNMENT ON MEMORY REFERENCE
ILLEGAL OPERAND
ILLEGAL INSTRUCTION
ILLEGAL STACK SWITCH
CCIO - COMMAND FAILURE
VIRTUAL ADDRESS OUT OF RANGE
```

r^1 = A string defining one of two possible error types:

```
3/6 MAIN CHANNEL IO RESPONSE ERROR
3/6 MAIN CHANNEL ADDRESS SEQUENCING ERROR
```

s^1 = A string defining one of three possible error types:

```
PINV - PAGE INVALID X'a
SIND - SEGMENT INDEX TOO LARGE X'a
SINV - SEGMENT INVALID X'a
```

4. ACTION TO BE TAKEN

For Format 1, save the ROP output, note the UID of the process that was reported, and inform the next level of support. This is a software problem and requires no diagnostic or board replacements.

For Format 2, examine the DSCH channel status register layout to determine the error type, and run diagnostics on the unit.

For Formats 3 and 4, for all six error types, run diagnostics on the indicated unit.

For Format 5, for error types `PARITY DIVERT ERROR` and `CCIO - COMMAND FAILURE`, run diagnostics on the indicated unit.
For error types `PROTECTION VIOLATION`, `OUT OF RANGE MEMORY REFERENCE`, `PRIVILEGED INSTRUCTION VIOLATION`, `BAD ALIGNMENT ON MEMORY REFERENCE`, `ILLEGAL OPERAND`, `ILLEGAL INSTRUCTION` and `LLEGAL STACK SWITCH`, forward the software log entry information from `ERRLOG` to the next level of support.
For error type `OUT OF RANGE MEMORY REFERENCE (OTHER STORE)`, check the fuses in the off-line memory and replace as needed. Run diagnostics on the off-line memory.

For error type `VIRTUAL ADDRESS OUT OF RANGE`, save the information from output, note the UID of the process that was reported, and inform the next level of support. This is a software problem and requires no diagnostic or board replacements.

For Format 6, run diagnostics on the processor encountering the fault.

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For Format 7, save the information from output, note the UID of the process that was reported, and inform the next level of support. This is a software problem and requires no diagnostic or board replacements.

For Format 8, if the error occurs more than once in 24 hours, run diagnostics on the off-line processor. If no problem is found, switch processors and run diagnostics on the off-line processor.

For Format 9, check the update cables on both processors and run diagnostics on the off-line processor.

For Format 10, run diagnostics on the CU in which the error occurred and forward the information from ERRLOG and ROP output to the next level of support.

For Format 11, if possible, switch processors so that the faulty CU can be diagnosed. Forward the diagnostic results and the information from ERRLOG to the next level of support.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 104.
Format 2 has an OMDB key of 115.
Format 3 has OMDB keys of 381, 382, 384, 386, 391, and 393.
Format 4 has OMDB key of 385, 388, 389, 390, 394, and 395.
Format 5 has OMDB key of 215, 373, 374, 375, 376, 377, 378, 379, 380, 392, and 465.
Format 6 has OMDB key of 116 and 174.
Format 7 has OMDB key of 397, 398, and 399.
Format 8 has an OMDB key of 107.
Format 9 has an OMDB key of 114.
Format 10 has an OMDB key of 396.
Format 11 has an OMDB key of 400.

Output Appendix
`OMDB-REF-APP`

Input Messages
`DGN:CU`

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-ERSLOT-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . EIH

1. FORMAT

This message has nineteen formats.

[1]
```
REPT ERSLOT
BAD OST X'a
FAULTY UNIT:    CU b
TIME OF ERROR: c d

   SAVE STATE
PA: eeeeeeee  PSW: ffffffff  PSBR: gggggggg  SSBR: hhhhhhhh

 GENERAL REGISTERS
0: iiiiiiii  1: iiiiiiii  2: iiiiiiii  3: iiiiiiii
4: iiiiiiii  5: iiiiiiii  6: iiiiiiii  7: iiiiiiii
8: iiiiiiii  9: iiiiiiii  A: iiiiiiii  B: iiiiiiii
C: iiiiiiii  D: iiiiiiii  E: iiiiiiii  F: iiiiiiii
UTILITY ID: jjjjjjjj  PROCESS NUMBER: kkkkkkkk

OST CODE: lllllll
OST ARGUMENTS:
ARG1: mmmmmmmm  ARG2: mmmmmmmm  ARG3: mmmmmmmm  ARG4: mmmmmmmm
ARG5: mmmmmmmm  ARG6: mmmmmmmm  ARG7: mmmmmmmm
REAL TIME CLOCK: nnnnnnnn
```

[2]
```
REPT ERSLOT
IO CHANNEL ERROR X'a
ONLINE CU: b
FAULTY UNIT: o p
TIME OF ERROR: c d
CHANNEL ADDRESS:  qqqqqqqq  CHANNEL STATUS REGISTER:  rrrrrrrr
REAL TIME CLOCK: nnnnnnnn
```

[3]
```
REPT ERSLOT
l1 X'a
ONLINE CU: b
FAULTY UNIT: o p
TIME OF ERROR: c d
DMA ADDRESS:  ssssssss  DMA STATUS REGISTER:  tttttttt
DMA RAM:  uuuuuuuu  vvvvvvvv  wwwwwwww  xxxxxxxx
DMA STORE ADDRESS REGISTER: t1t1t1t1t1t1t1t1
DMA STORE DATA REGISTER:  yyyyyyyy
DMA INCREMENTOR:  zzzzzzzz [ DMA DIO DATA REGISTER: u1u1u1u1u1u1u1u1 ]
```

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```
DMA BUFFER REGISTER:  q1 q1 q1 q1 a1 a1 a1 a1
  DMA MASK REGISTER: v1 v1 v1 v1 v1 v1 v1 v1
[CHANNEL DATA REGISTER:   b1 b1 b1 b1 b1 b1 b1 b1 ]
REAL TIME CLOCK: nnnnnnnn
```

[4]
```
REPT ERSLOT
m1 X'a
ONLINE CU: b
FAULTY UNIT: o p
TIME OF ERROR: c d
DMA ADDRESS:  ssssssss  DMA STATUS REGISTER:  tttttttt
n1
CHANNEL ADDRESS: qqqqqqqq CHANNEL STATUS REGISTER: rrrrrrrr
DMA RAM:  uuuuuuuu  vvvvvvvv  wwwwwwww  xxxxxxxx
DMA STORE ADDRESS REGISTER: t1 t1 t1 t1 t1 t1 t1 t1
DMA STORE DATA REGISTER:  yyyyyyyy
DMA INCREMENTOR:  zzzzzzzz [DMA DIO DATA REGISTER: u1 u1 u1 u1 u1 u1 u1 u1 ]
DMA BUFFER REGISTER:  q1 q1 q1 q1 a1 a1 a1 a1
  DMA MASK REGISTER: v1 v1 v1 v1 v1 v1 v1 v1
REAL TIME CLOCK: nnnnnnnn
```

[5]
```
REPT ERSLOT
q1 X'a
ONLINE CU: b
FAULTY UNIT: o p
TIME OF ERROR: c d

   SAVE STATE
PA: eeeeeeee  PSW: ffffffff  PSBR: gggggggg  SSBR: hhhhhhhh

 GENERAL REGISTERS
0: iiiiiiii  1: iiiiiiii  2: iiiiiiii  3: iiiiiiii
4: iiiiiiii  5: iiiiiiii  6: iiiiiiii  7: iiiiiiii
8: iiiiiiii  9: iiiiiiii  A: iiiiiiii  B: iiiiiiii
C: iiiiiiii  D: iiiiiiii  E: iiiiiiii  F: iiiiiiii
UTILITY ID: jjjjjjjj  PROCESS NUMBER: kkkkkkkk
[CHANNEL DATA REGISTER:   b1 b1 b1 b1 b1 b1 b1 b1 ]
REAL TIME CLOCK: nnnnnnnn
```

[6]
```
REPT ERSLOT
r1 X'a
ONLINE CU: b
FAULTY UNIT: o p
TIME OF ERROR: c d
HARDWARE STATUS REGISTER:   c1 c1 c1 c1 c1 c1 c1 c1
REAL TIME CLOCK: nnnnnnnn
```

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[7]
```
REPT ERSLOT
s1 X'a
FAULTY UNIT:    CU b
TIME OF ERROR: c d

   SAVE STATE
PA: eeeeeeee  PSW: ffffffff  PSBR: gggggggg  SSBR: hhhhhhhh

 GENERAL REGISTERS
0: iiiiiiii  1: iiiiiiii  2: iiiiiiii  3: iiiiiiii
4: iiiiiiii  5: iiiiiiii  6: iiiiiiii  7: iiiiiiii
8: iiiiiiii  9: iiiiiiii  A: iiiiiiii  B: iiiiiiii
C: iiiiiiii  D: iiiiiiii  E: iiiiiiii  F: iiiiiiii
UTILITY ID: jjjjjjjj  PROCESS NUMBER: kkkkkkkk
REAL TIME CLOCK: nnnnnnnn
```

[8]
```
REPT ERSLOT
INVALID MAINTENANCE CHANNEL ORDER X'a
ONLINE CU: b
FAULTY UNIT: o p
TIME OF ERROR: c d

   SAVE STATE
PA: eeeeeeee  PSW: ffffffff  PSBR: gggggggg  SSBR: hhhhhhhh

 GENERAL REGISTERS
0: iiiiiiii  1: iiiiiiii  2: iiiiiiii  3: iiiiiiii
4: iiiiiiii  5: iiiiiiii  6: iiiiiiii  7: iiiiiiii
8: iiiiiiii  9: iiiiiiii  A: iiiiiiii  B: iiiiiiii
C: iiiiiiii  D: iiiiiiii  E: iiiiiiii  F: iiiiiiii
UTILITY ID: jjjjjjjj  PROCESS NUMBER: kkkkkkkk
ONLINE MCH MASTER STATUS:   d1 d1 d1 d1 d1 d1 d1 d1
ONLINE MCH SLAVE STATUS:    w1 w1 w1 w1 w1 w1 w1 w1
ONLINE MCH BUFFER:          x1 x1 x1 x1 x1 x1 x1 x1
ONLINE MCH SLAVE COMMAND:   y1 y1 y1 y1 y1 y1 y1 y1
OFFLINE MCH MASTER STATUS:  z1 z1 z1 z1 z1 z1 z1 z1
OFFLINE MCH SLAVE STATUS:   a2 a2 a2 a2 a2 a2 a2 a2
OFFLINE MCH BUFFER:         b2 b2 b2 b2 b2 b2 b2 b2
REAL TIME CLOCK: nnnnnnnn
```

[9]
```
REPT ERSLOT
OTHER STORE TIME-OUT ERROR   X'a
ONLINE CU: b
FAULTY UNIT: e1 f1 o p
TIME OF ERROR: c d
REAL TIME CLOCK: nnnnnnnn
```

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[10]
```
REPT ERSLOT
INVALID ERROR INTERRUPT TYPE IS: g[1] X'a
ER: h[1]h[1]h[1]h[1]h[1]h[1]h[1]h[1] UER: i[1]i[1]i[1]i[1]i[1]i[1]i[1]i[1] UER1: j[1]j[1]j[1]j[1]j[1]j[1]j[1]j[1]
REAL TIME CLOCK: nnnnnnnn
```

[11]
```
REPT ERSLOT
INVALID ERROR NUMBER: k[1] SEQ NO: X'a
```

[12]
```
REPT ERSLOT
MY STORE C DURING DMA  X'a
ONLINE CU: b
FAULTY UNIT: e[1] f[1] o p
TIME OF ERROR: c d
DMA ADDRESS:  ssssssss  DMA STATUS REGISTER:  tttttttt
MAIN STORE CONTROLLER 0
TRAPPED ADDRESS REGISTER:  c[2]c[2]c[2]c[2]c[2]c[2]c[2]c[2]
ERROR REGISTER 1:  d[2]d[2]d[2]d[2]d[2]d[2]d[2]d[2]
ERROR REGISTER 2:  e[2]e[2]e[2]e[2]e[2]e[2]e[2]e[2]
MAIN STORE CONTROLLER 1 (MAY NOT BE CONFIGURED)
TRAPPED ADDRESS REGISTER:  f[2]f[2]f[2]f[2]f[2]f[2]f[2]f[2]
ERROR REGISTER 1:  g[2]g[2]g[2]g[2]g[2]g[2]g[2]g[2]
ERROR REGISTER 2:  h[2]h[2]h[2]h[2]h[2]h[2]h[2]h[2]
ERROR DATA:  i[2]i[2]i[2]i[2]i[2]i[2]i[2]i[2]
PHYSICAL MEMORY ADDRESS: j[2]j[2]j[2]j[2]j[2]j[2]j[2]j[2]
y[2]
REAL TIME CLOCK: nnnnnnnn
```

[13]
```
REPT ERSLOT
MY STORE C DURING DMA  X'a
ONLINE CU: b
FAULTY UNIT: e[1] f[1] o p
TIME OF ERROR: c d
DMA ADDRESS:  ssssssss  DMA STATUS REGISTER:  tttttttt
MCERT ERROR ADDRESS REGISTER: k[2]k[2]k[2]k[2]k[2]k[2]k[2]k[2]
MCERT ERROR REGISTER: l[2]l[2]l[2]l[2]l[2]l[2]l[2]l[2]  MCERT STATUS
 REGISTER: m[2]m[2]m[2]m[2]m[2]m[2]m[2]m[2]
MCERT COMMAND REGISTER: n[2]n[2]n[2]n[2]n[2]n[2]n[2]n[2]
MCERT STROBE SHAPE REGISTER: o[2]o[2]o[2]o[2]o[2]o[2]o[2]o[2]
MCERT MAIN MEMORY REGISTER: p[2]p[2]p[2]p[2]p[2]p[2]p[2]p[2]
DP ERROR DATA REGISTER: q[2]q[2]q[2]q[2]q[2]q[2]q[2]q[2]
DP STATUS REGISTER: r[2]r[2]r[2]r[2]r[2]r[2]r[2]r[2] DP COMMAND
 REGISTER: s[2]s[2]s[2]s[2]s[2]s[2]s[2]s[2]
ERROR DATA:  i[2]i[2]i[2]i[2]i[2]i[2]i[2]i[2]
PHYSICAL MEMORY ADDRESS: j[2]j[2]j[2]j[2]j[2]j[2]j[2]j[2]
BANK CORRESPONDING TO THE PHYSICAL ADDRESS: t[2]t[2]
REAL TIME CLOCK: nnnnnnnn
```

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[14]
```
REPT ERSLOT
OTHER STORE HARDWARE ERROR  X'a
ONLINE CU: b
FAULTY UNIT: e1 f1 o p
TIME OF ERROR: c d
MAIN STORE CONTROLLER 0
TRAPPED ADDRESS REGISTER:  c2 c2 c2 c2 c2 c2 c2 c2
ERROR REGISTER 1:  d2 d2 d2 d2 d2 d2 d2 d2
ERROR REGISTER 2:  e2 e2 e2 e2 e2 e2 e2 e2
MAIN STORE CONTROLLER 1 (MAY NOT BE CONFIGURED)
TRAPPED ADDRESS REGISTER:  f2 f2 f2 f2 f2 f2 f2 f2
ERROR REGISTER 1:  g2 g2 g2 g2 g2 g2 g2 g2
ERROR REGISTER 2:  h2 h2 h2 h2 h2 h2 h2 h2
REAL TIME CLOCK: nnnnnnnn
```

[15]
```
REPT ERSLOT
OTHER STORE HARDWARE ERROR  X'a
ONLINE CU: b
FAULTY UNIT: e1 f1 o p
TIME OF ERROR: c d
MAIN STORE CONTROLLER 0
MCERT ERROR ADDRESS REGISTER: k2 k2 k2 k2 k2 k2 k2 k2
MCERT ERROR REGISTER: l2 l2 l2 l2 l2 l2 l2 l2  MCERT STATUS
 REGISTER: m2 m2 m2 m2 m2 m2 m2 m2
MCERT COMMAND REGISTER: n2 n2 n2 n2 n2 n2 n2 n2
MCERT STROBE SHAPE REGISTER: o2 o2 o2 o2 o2 o2 o2 o2
MCERT MAIN MEMORY REGISTER: p2 p2 p2 p2 p2 p2 p2 p2
DP ERROR DATA REGISTER: q2 q2 q2 q2 q2 q2 q2 q2
DP STATUS REGISTER: r2 r2 r2 r2 r2 r2 r2 r2 DP COMMAND
 REGISTER: s2 s2 s2 s2 s2 s2 s2 s2
REAL TIME CLOCK: nnnnnnnn
```

[16]
```
REPT ERSLOT
z2 X'a
ONLINE CU: b
FAULTY UNIT: e1 f1 o p
TIME OF ERROR: c d
MAIN STORE CONTROLLER 0
TRAPPED ADDRESS REGISTER:  c2 c2 c2 c2 c2 c2 c2 c2
ERROR REGISTER 1:  d2 d2 d2 d2 d2 d2 d2 d2
ERROR REGISTER 2:  e2 e2 e2 e2 e2 e2 e2 e2
MAIN STORE CONTROLLER 1 (MAY NOT BE CONFIGURED)
TRAPPED ADDRESS REGISTER:  f2 f2 f2 f2 f2 f2 f2 f2
ERROR REGISTER 1:  g2 g2 g2 g2 g2 g2 g2 g2
ERROR REGISTER 2:  h2 h2 h2 h2 h2 h2 h2 h2
ERROR DATA:  i2 i2 i2 i2 i2 i2 i2 i2
PHYSICAL MEMORY ADDRESS:  j2 j2 j2 j2 j2 j2 j2 j2
REAL TIME CLOCK: nnnnnnnn
```

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[17]
```
REPT ERSLOT
z2 X'a
ONLINE CU: b
FAULTY UNIT: e1 f1 o p
TIME OF ERROR: c d
MAIN STORE CONTROLLER 0
MCERT ERROR ADDRESS REGISTER: k2k2k2k2k2k2k2k2
MCERT ERROR REGISTER: l2l2l2l2l2l2l2l2 MCERT STATUS
 REGISTER: m2m2m2m2m2m2m2m2
MCERT COMMAND REGISTER: n2n2n2n2n2n2n2n2
MCERT STROBE SHAPE REGISTER: o2o2o2o2o2o2o2o2
MCERT MAIN MEMORY REGISTER: p2p2p2p2p2p2p2p2
DP ERROR DATA REGISTER: q2q2q2q2q2q2q2q2
DP STATUS REGISTER: r2r2r2r2r2r2r2r2 DP COMMAND
 REGISTER: s2s2s2s2s2s2s2s2
ERROR DATA:  i2i2i2i2i2i2i2i2
PHYSICAL MEMORY ADDRESS: j2j2j2j2j2j2j2j2
BANK CORRESPONDING TO THE PHYSICAL ADDRESS: t2t2
REAL TIME CLOCK: nnnnnnnn
```

[18]
```
REPT ERSLOT
EAI INTERRUPT: X'a
ONLINE CU: b
FAULTY UNIT: e1 f1 o p
TIME OF ERROR: c d
EAI ERROR REGISTER: u2u2u2u2u2u2u2u2
REAL TIME CLOCK: nnnnnnnn
```

2. REASON FOR OUTPUT

To report error interrupts handled by the error interrupt handler (EIH) that are not associated with the main memory. Among the errors handled are input/output errors, direct memory access (DMA) errors, other control unit (CU) hardware errors, and software errors.

Format 1 indicates that the kernel determined that a process attempted an operating system trap (OST) with a bad argument.

Format 2 indicates that a faulty unit encountered a fatal error condition. The channel status and channel address are provided in the report.

Format 3 has six error types.

1. MY STORE A DURING DMA
   This error type indicates the DMA controller (DMAC) encountered a fatal main memory problem during DMA transfer. See the *System Maintenance Manual,* Register Layouts section of the Error Analysis chapter, Error Register error bit 6.

2. `MY STORE B DURING DMA`
   A device attempted to access a location in memory that is not physically equipped. See the *System Maintenance Manual*, Register Layouts section of the Error Analysis chapter, Error Register error bit 23.
3. `BAD PARITY ON DMA READ`
   The DMAC detected bad parity on its internal bus. This can be caused by a DMAC failure, or a request from a device that has not had its DMAC RAM block initialized.
4. `DMA RAM PARITY FAILURE`
   A parity error occurred on the DMAC internal RAM.
5. `CCIO - DATA PARITY FAILURE`
   A command received by the DMAC on a processor input/output (PIO) operation had bad parity.
6. `DMA - ROM PARITY FAILURE`
   A parity error was detected in the DMAC ROM.

Format 4 has six error types.

1. `BAD PARITY ON DIO BUS`
   The DMAC received bad parity from named CHANNEL ADDRESS device on data destined for the main memory during a DMA transfer.
2. `DIO - READY FAILURE`
   The named channel did not return a READY signal to the DMAC.
3. `DMA - ASW FAILURE`
   The named channel did not return all-seems-well (ASW) to the DMAC.
4. `DIO - ACKNOWLEDGE FAILURE`
   Either more than one or no channel responded to the DMAC.
5. `DMA - ADDRESS ERROR`
   During the virtual to physical address translation, the DMAC found that the requested input/output access was not permitted to physical memory, or, during the data transfer, the data would have been written beyond the end of a segment.
6. `DMA - CHANNEL REQUEST ERROR`
   A device made a request with an invalid DMA RAM entry.

Format 5 has eleven error types.

1. `PARITY DIVERT ERROR`
   The named unit returned a word with bad parity.
2. `PROTECTION VIOLATION`
   A program tried to execute from a segment that did not have execute permission, or tried to write into a segment that did not have write permission.
3. `OUT OF RANGE MEMORY REFERENCE`
   A program tried to access unequipped memory.

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4. OUT OF RANGE MEMORY REFERENCE (OTHER STORE)
   The off-line main memory considered the address to be out of range while the on-line memory did not. This usually indicates a problem with the off-line memory.
5. PRIVILEGED INSTRUCTION VIOLATION
   The program tried to execute one of the special instructions without a corresponding privilege bit set in the PSW.
6. BAD ALIGNMENT ON MEMORY REFERENCE
   This indicates software fault - the instruction executed with the wrong address (for example, a full-word instruction executed with a half-word address).
7. ILLEGAL OPERAND
   One of the operands specified in an instruction is invalid for the opcode.
8. ILLEGAL INSTRUCTION
   The data in the instruction buffer did not correspond to a valid instruction.
9. ILLEGAL STACK SWITCH
   The program attempted to switch to a private stack while it was running on a private stack, or attempted to switch to the kernel stack while it was already running on the kernel stack.
10. CCIO - COMMAND FAILURE
    A second programmed input/output order was sent to the DMAC before the first one was completed.
11. VIRTUAL ADDRESS OUT OF RANGE
    Microcode has determined that a virtual address is not mappable in a process's address space.

Format 6 has two error types.

1. 3/6 MAIN CHANNEL IO RESPONSE ERROR
   More than one device responded to an input/output address. See the *System Maintenance Manual,* Register Layouts section of the Error Analysis chapter, Error Register error bit 17.
2. 3/6 MAIN CHANNEL ADDRESS SEQUENCING ERROR
   Either an illegal 3-out-of-6 (3/6) code on the CCIO bus, or more than one input/output pulse point was active in the command to the channel. See the *System Maintenance Manual,* Register Layouts section of the Error Analysis chapter, Error Register error bit 18.

Format 7 has three error types.

1. PINV - PAGE INVALID
   A process attempted to access a page that is not in its page table.
2. SIND - SEGMENT INDEX TOO LARGE
   Microcode detected a segment index too large for the segment being accessed.
3. SINV - SEGMENT INVALID
   A process attempted to access a segment that is not in its segment table.

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Format 8 indicates that the maintenance channel is faulty, or a maintenance channel order has been sent to a processor that is not disabled or marked off-line.

Format 9 indicates the off-line CU memory controller has not responded to a memory access.

Format 10 indicates EIH was dispatched to handle an error, but no error bit in the error registers was set.

Format 11 indicates an error type which EIH does not recognize occurred.

Format 12 indicates that a non-correctable parity error has occurred during a DMA read of a memory location on the currently running CU.

Format 13 is for 3B21D machine only and indicates that a non-correctable parity error has occurred during a DMA read of a memory location on the currently running CU.

Format 14 indicates that an error has occurred because the memory controller of the mate processor had a store error A condition. This error occurs in the off-line CU, but is detected by the on-line CU.

Format 15 is for 3B21D machine only and indicates that an error has occurred because the memory controller of the mate processor had a store error A condition. This error occurs in the off-line CU, but is detected by the on-line CU.

Format 16 has four error types.

1. The `REPT NONCORRECTABLE PARITY ERROR ON MEMORY REFERENCE` indicates noncorrectable memory parity failure in the on-line CU.
2. The `OTHER STORE REFRESH PARITY ERROR` indicates a correctable parity error (other store D) in the mate processor. This type of error can only occur if the mate processor is in the standby state.
3. The `REPT OTHER STORE READ PARITY ERROR` indicates a noncorrectable memory error (`other store C`) in the mate processor. This type of error can only occur if the mate processor is in the standby state.
4. A `REPT MEMORY PARITY FAILURE` indicates a correctable memory failure occurred in the on-line processor (`my store D`).

Format 17 is for the 3B21D machine only. It is issued for the same reason as Format 16.

Format 18 is for the 3B21D machine only. This indicates that an error has occurred in the CC EAI hardware.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = CU member number.

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c = The date in the form `mm/dd/yy`, month / day / year.

d = The time in the form `hh:mm:ss`, hours:minutes:seconds.

e = The program address at the time of error interrupt (in hexadecimal). For software-requested initializations, this is the address of the phase OST and not the address where the problem was detected.

f = The processor status word (in hexadecimal). Among the information it contains are the execution level and the processor mode - the kernel mode, kernel process, supervisor process, or user process. See the Register Layouts section of the Error Analysis chapter of the *System Maintenance Manual.*

g = The contents of the primary segment base register (in hexadecimal).

h = The contents of the secondary segment base register (in hexadecimal).

i = The contents, in hexadecimal, of the 16 general-purpose registers.

`R9:` argument pointer
`RA:` frame pointer
`RB:` stack pointer

j = Process utility ID (in hexadecimal). See the Error Analysis chapter of the *System Maintenance Manual,* Process / Problem Table.

k = Process number (in hexadecimal).

l = OST code (in hexadecimal).

m = OST arguments (in hexadecimal).

n = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

o = Unit name.

p = Member number.

q = The input / output address, in hexadecimal, of the channel that caused the problem.

r = The contents, in hexadecimal, of the dual serial channel (DSCH) channel status register. See the Register Layouts section of the Error Analysis chapter of the *System Maintenance Manual.*

s = The input / output address, in hexadecimal, of the DMAC that encountered the fault.

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t = The contents, in hexadecimal, of the DMA status register. See the Register Layouts section of the Error Analysis chapter of the *System Maintenance Manual.*

u = First word entry in the DMA RAM for the device that failed (in hexadecimal).

v = Second word entry in the DMA RAM for the device that failed (in hexadecimal).

w = Third word entry in the DMA RAM for the device that failed (in hexadecimal).

x = Fourth word entry in the DMA RAM for the device that failed (in hexadecimal).

y = Internal DMAC register contents (in hexadecimal). This data represents the last data word either written or read from main store.

z = Internal DMAC register contents (in hexadecimal). This data represents the value of the DMA incrementor which is a counter used by the DMAC to increment the physical address, map address, and the transfer count during the store operation.

a^1 = Internal DMAC register contents (in hexadecimal). This register is used as a scratch register by microcode during the virtual to physical translation in a DMA access.

b^1 = Contents of the channel data register (CDR), also known as the CCIO bus data register (in hexadecimal).

c^1 = Contents of the hardware status register (in hexadecimal).

d^1 = On-line maintenance channel master status (in hexadecimal).

e^1 = Community name.

f^1 = Community number.

g^1 = The invalid error interrupt type.

h^1 = The contents of the error register (ER) (in hexadecimal). See the Register Layouts section of the Error Analysis chapter of the *System Maintenance Manual.*

i^1 = The contents of the microinterrupt error register (UER) (in hexadecimal). See the Register Layouts section of the Error Analysis chapter of the *System Maintenance Manual.*

j^1 = The contents of the UER1 (in hexadecimal). See the Register Layouts section of the Error Analysis chapter of the *System Maintenance Manual.*

k^1 = The invalid error number.

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l^1 = A string defining one of six possible error types:

```
MY STORE A DURING DMA
MY STORE B DURING DMA
BAD PARITY ON DMA READ
DMA RAM PARITY FAILURE
CCIO - DATA PARITY FAILURE
DMA - ROM PARITY FAILURE
```

m^1 = A string defining one of six possible error types:

```
BAD PARITY ON DIO BUS
DIO - READY FAILURE
DMA - ASW FAILURE
DIO - ACKNOWLEDGE FAILURE
DMA - ADDRESS ERROR
DMA - CHANNEL REQUEST ERROR
```

n^1 = For Model 1:

DMA CHANNEL STATUS REGISTER: $o^1o^1o^1o^1o^1o^1o^1o^1$

For Model 2:

CHANNEL DATA REGISTER: $p^1p^1p^1p^1p^1p^1p^1p^1$

o^1 = Status, in hexadecimal, of the channel under the DMAC that encountered the fault. See the Register Layouts section of the Error Analysis chapter of the *System Maintenance Manual.*

p^1 = The contents, in hexadecimal, of the faulted channels data register.

q^1 = A string defining one of eleven possible error types:

```
PARITY DIVERT ERROR
PROTECTION VIOLATION
OUT OF RANGE MEMORY REFERENCE
OUT OF RANGE MEMORY REFERENCE (OTHER STORE)
PRIVILEGED INSTRUCTION VIOLATION
BAD ALIGNMENT ON MEMORY REFERENCE
ILLEGAL OPERAND
ILLEGAL INSTRUCTION
ILLEGAL STACK SWITCH
CCIO - COMMAND FAILURE
VIRTUAL ADDRESS OUT OF RANGE
```

r^1 = A string defining one of two possible error types:

```
3/6 MAIN CHANNEL IO RESPONSE ERROR
3/6 MAIN CHANNEL ADDRESS SEQUENCING ERROR
```

SEE PROPRIETARY NOTICE ON COVER PAGE

s[1] = A string defining one of three possible error types:

```
PINV - PAGE INVALID X'a
SIND - SEGMENT INDEX TOO LARGE X'a
SINV - SEGMENT INVALID X'a
```

t[1] = Internal DMAC register contents (in hexadecimal). This register contains the last main store memory accessed by DMA for either a read or a write.

u[1] = Internal DMAC register contents (in hexadecimal). This register contains the data being passed between the DMAC and the channels.

v[1] = Internal DMAC register contents (in hexadecimal). This register contains the current channel mask setup.

w[1] = For 3B21D:

On-line maintenance channel slave status (in hexadecimal).

For 3B20D:

This field is meaningless. It is set to 0xffffffff.

x[1] = On-line maintenance channel buffer (in hexadecimal).

y[1] = For 3B21D:

On-line maintenance channel slave command (in hexadecimal).

For 3B20D:

This field is meaningless. It is set to 0xffffffff.

z[1] = For 3B21D:

Off-line maintenance channel master status (in hexadecimal).

For 3B20D:

This field is meaningless. It is set to 0xffffffff.

a[2] = Off-line maintenance channel slave status (in hexadecimal).

b[2] = Off-line maintenance channel buffer (in hexadecimal).

c[2] = If bit 27 of the main store controller 0 trapped address register (TAR0) is set, TAR0 contains the address, in hexadecimal, where the fault occurred.

d[2] = The contents, in hexadecimal, of the main store controller 0 error register 1 (ER01). See the Register Layouts section of the Error Analysis chapter of the *System Maintenance Manual.*

e[2] = The contents, in hexadecimal, of the main store controller 0 error register 2 (ER02). See the Register Layouts section of the Error Analysis chapter of the *System Maintenance Manual.*

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f^2 = The contents, in hexadecimal, of the main store controller 1 trapped address register (TAR1).

g^2 = The contents, in hexadecimal, of the main store controller 1 error register 1 (ER11). See the Register Layouts section of the Error Analysis chapter of the *System Maintenance Manual.*

h^2 = The contents, in hexadecimal, of the main store controller 1 error register 2 (ER12). See the Register Layouts section of the Error Analysis chapter of the *System Maintenance Manual.*

i^2 = Error data (in hexadecimal).

j^2 = Physical memory address (in hexadecimal).

k^2 = The contents of the MCERT error address register. This is the address where the error occurred.

l^2 = The contents of the MCERT error register. This register has all the relevant information that caused an error B.

m^2 = The contents of the MCERT status register. This indicates the banks that are present, the size of each bank and the result of the march test.

n^2 = The contents of the MCERT command register.

o^2 = The contents of the MCERT strobe shape register. This register encodes the timing requirements for various operations in the MCERT circuit.

p^2 = The contents of the MCERT main memory register. This register has all the relevant error information.

q^2 = The contents of the data path MCERT error data register. This register contains the data when the error occurred.

r^2 = The contents of the data path MCERT status register. This register contains information that caused the error A, C, or D.

s^2 = The contents of the MCERT data path command register. This register contains application specific information.

t^2 = The bank number, in hexadecimal, corresponding to the physical memory address. A value of 0xFF is invalid. This indicates an error in accessing the MCERT (memory controller for the 3B21D machine).

u^2 = Contents of the EAI error register. This indicates the actual error on the EAI hardware.

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y^2 = For Model 1:

CHANNEL DATA REGISTER: $p^1p^1p^1p^1p^1p^1p^1p^1$

For Model 2:

a blank line.

z^2 = A string defining one of four possible error types:

```
NONCORRECTABLE PARITY ERROR ON MEMORY REFERENCE
OTHER STORE REFRESH PARITY ERROR
OTHER STORE READ PARITY ERROR
MEMORY PARITY FAILURE
```

4. ACTION TO BE TAKEN

For Format 1, save the ROP output, note the UID of the process that was reported, and inform the next level of support. This is a software problem and requires no diagnostic or board replacements.

For Format 2, examine the DSCH channel status register layout to determine the error type, and run diagnostics on the unit.

For Formats 3 and 4, for all six error types, run diagnostics on the indicated unit.

For Format 5, for error types PARITY DIVERT ERROR and CCIO - COMMAND FAILURE, run diagnostics on the indicated unit.

For error types PROTECTION VIOLATION, OUT OF RANGE MEMORY REFERENCE, PRIVILEGED INSTRUCTION VIOLATION, BAD ALIGNMENT ON MEMORY REFERENCE, ILLEGAL OPERAND, ILLEGAL INSTRUCTION and ILLEGAL STACK SWITCH, forward the software log entry information from ERLOG to the next level of support.

For error type OUT OF RANGE MEMORY REFERENCE (OTHER STORE), check the fuses in the off-line memory and replace as needed. Run diagnostics on the off-line memory.

For error type VIRTUAL ADDRESS OUT OF RANGE, save the information from ERLOG output, note the UID of the process that was reported, and inform the next level of support. This is a software problem and requires no diagnostic or board replacements.

For Format 6, run diagnostics on the processor encountering the fault.

For Format 7, save the information from ERLOG output, note the UID of the process that was reported, and inform the next level of support. This is a software problem and requires no diagnostic or board replacements.

For Format 8, if the error occurs more than once in 24 hours, run diagnostics on the off-line processor. If no problem is found, switch processors and run diagnostics on the off-line processor.

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For Format 9, check the update cables on both processors and run diagnostics on the off-line processor.

For Format 10, run diagnostics on the CU in which the error occurred and forward the information from ERLOG and ROP output to the next level of support.

For Format 11, if possible, switch processors so that the faulty CU can be diagnosed. Forward the diagnostic results and the information from ERLOG to the next level of support.

For Formats 12 and 13, if the processor switched as a result of the error, run diagnostics on the processor encountering the fault.

For Formats 14 and 15, diagnose the fault unit and forward the diagnostic results and the information from ERLOG to the next level of support.

For Formats 16 and 17, if the error occurred on the off-line CU, check the update cable on both the processors. In all cases, run diagnostics on the faulty processor.

NOTE: To run CU diagnostics, the CU that is being diagnosed should be out of service and the other CU active.

Format 18 indicates a fault in the EAI hardware of the CC pack.

Some classes of EAI faults will cause hard failures for which there is no automatic recovery of the EAI. An example of this type of error is a stuck microprocessor address/data bit which will cause indeterminate code execution and block internal recovery. Invalid error register contents reported in the error log (e.g. 00) is an indication that the EAI hardware has detected a fault but is not able to perform fault recovery functions for the EAI. As a result of this hard fault, RTR fault recovery code will not be able to access the EAI hardware, including the EAI error register. The main symptom of this problem is that the EAI hardware routinely report errors even after automatic recovery. When this type of error occurs and if the CUs are in ACT/STBY state, a CU switch will occur and the machine will continue to run on the non-faulty CU (a CU switch will NOT occur if the CUs are in ACT/OOS state). Also, all other system functions should continue as normal.

In any case ensure that the machine is running on the other (non-faulty) CU and run diagnostics on the faulty CU. If the diagnostics fail, replace the CC pack that contains the EAI circuitry and restore the CU. Forward the diagnostic results, the information from the ERLOG and ROP output to the next level of support.

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5. ALARMS

None. This automatically-generated report is for information only.

If a major alarm occurs (Format 18), it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 104.
Format 2 has an OMDB key of 115.
Format 3 has OMDB keys of 381, 382, 384, 386, 391, and 393.
Format 4 has OMDB key of 385, 388, 389, 390, 394, and 395.
Format 5 has OMDB key of 215, 373, 374, 375, 376, 377, 378, 379, 380, 392, and 465.
Format 6 has OMDB key of 116 and 174.
Format 7 has OMDB key of 397, 398, and 399.
Format 8 has an OMDB key of 107.
Format 9 has an OMDB key of 114.
Format 10 has an OMDB key of 396.
Format 11 has an OMDB key of 400.
Format 12 has an OMDB key of 383.
Format 13 has an OMDB key of 679.
Format 14 has an OMDB key of 108.
Format 15 has an OMDB key of 680.
Format 16 has OMDB keys of 105, 112, 113, and 216.
Format 17 has OMDB keys of 681, 682, 683, and 684.
Format 18 has an OMDB key of 685.

Output Appendix
`OMDB-REF-APP`

Input Messages
`DGN:CU`

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-FAN-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `REPT FAN INHIBITS CLEARED` *a b*

[2] `REPT FAN INHIBITS NOT CLEARED` *a b*

[3] `REPT FAN INHIBIT TIMER HAS EXPIRED` *a b*

2. REASON FOR OUTPUT

To report on fan alarm scan points.

Format 1 indicates that the fan alarm scan points are no longer inhibited. This is a result of a 30-minute inhibit timer expiring.

Format 2 reports that the power switch monitor (PSM) failed to remove scan point inhibits.

Format 3 reports that the inhibit timer has expired and PSM is taking action to allow the points.

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

4. ACTION TO BE TAKEN

If inhibits could not be cleared, information from the `REPT-PSM` output message will indicate the reason for the failure. Maintenance on the fan units may be required.

5. ALARMS

Formats 1, 2, and 3 are automatically-generated reports and are for information only.

Format 2 can also have a major alarm level for multiple fan failures, or a minor alarm level for single fan failures.

For a major alarm, failure may not be service affecting, but take immediate action as indicated in the report.

For a minor alarm, take action as indicated in the report.

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6. REFERENCES

OMDB Keys
Formats 1, 2, and 3 have an OMDB key of 137.
Format 2 also has OMDB keys of 135 (major alarm) and 136 (minor alarm).

Output Message
`REPT-PSM`

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-FAN-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `REPT FAN INHIBITS CLEARED` *a b*

[2] `REPT FAN INHIBITS NOT CLEARED` *a b*

[3] `REPT FAN INHIBIT TIMER HAS EXPIRED` *a b*

[4] `REPT FAN INHIBITS CLEARED` *c* `CABINET`

[5] `REPT FAN INHIBITS NOT CLEARED` *c* `CABINET`

[6] `REPT FAN INHIBIT TIMER HAS EXPIRED` *c* `CABINET`

[7] `REPT FAN ALARM` *c* `CABINET`

[8] `REPT FAN ALARM CLEARED` *c* `CABINET`

2. REASON FOR OUTPUT

To report on fan alarm scan points.

Formats 1 and 4 indicate that the fan alarm scan points are no longer inhibited. This is a result of a 30-minute inhibit timer expiring.

Formats 2 and 5 report that the power switch monitor (PSM) failed to remove scan point inhibits.

Formats 3 and 6 report that the inhibit timer has expired and the the PSM is taking action to allow the points.

Format 7 reports a scan point transition which indicates a fan alarm in one of the cabinets of the 3B21D computer.

Format 8 reports a scan point transition which indicates the fan alarm in one of the cabinets of the 3B21D computer was cleared.

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3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

c = Basic or growth cabinet.

4. ACTION TO BE TAKEN

For Formats 1 through 6, if inhibits could not be cleared, information from the REPT-PSM output message will indicate the reason for the failure. Maintenance on the fan units may be required.

For Format 7, determine if the fan units in the indicated cabinet of the 3B21D computer need to be repaired. If all fan units are operational, then fan alarm is the result of the fan circuitry experiencing excessive heat. This causes the fan to run at high speeds. Seek technical assistance if needed.

For Format 8, no action is needed.

5. ALARMS

Formats 1 through 6 and 8 are automatically-generated reports and are for information only.

Format 2 can also have a major alarm level for multiple fan failures, or a minor alarm level for single fan failures.

Format 5 can also have a critical alarm level for fan alarms within the basic cabinet of the 3B21D computer, or a major alarm level for fan alarms within the growth cabinet of the 3B21D computer.

Format 7 has a critical alarm level for fan alarms within the basic cabinet of the 3B21D computer, or a major alarm level for fan alarms within the growth cabinet of the 3B21D computer.

For a critical alarm, take immediate action to clear the problem. Seek technical assistance if needed.

For a major alarm, the problem may not be service affecting, but take immediate action as indicated in the report.

For a minor alarm, take action as indicated in the report.

6. REFERENCES

OMDB Keys
Formats 1 through 6, and 8 have an OMDB key of 137.
Format 2 also has OMDB keys of 135 (major alarm) and 136 (minor alarm).
Formats 5 and 7 also have OMDB keys of 135 and 697 (critical alarm).

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Output Message
REPT-PSM

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-FF,MULTI-A
GENERIC . . . . . UNIX RTR R1.5, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT FAN MULTIPLE FAILURE` *a b*

[2] `REPT FAN MULTIPLE ALARM CLEARED` *a b*

2. REASON FOR OUTPUT

Format 1 reports a scan point transition indicating multiple fan failures.

Format 2 reports a scan point transition indicating the fan alarm was cleared.

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

4. ACTION TO BE TAKEN

For Format 1, determine if the fans need to be repaired.

For Format 2, no action is needed.

5. ALARMS

Format 1 has a major alarm level. The failure may not be service affecting, but take immediate action to clear the problem.

Format 2 is an automatically-generated report and is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 135.
Format 2 has an OMDB key of 137.

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-FF,MULTI-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT FAN MULTIPLE FAILURE` *a b*

[2] `REPT FAN MULTIPLE ALARM CLEARED` *a b*

2. REASON FOR OUTPUT

Format 1 reports a scan point transition indicating multiple fan failures.

Format 2 reports a scan point transition indicating the fan alarm was cleared.

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

4. ACTION TO BE TAKEN

For Format 1, determine if the fans need to be repaired.

For Format 2, no action is needed.

5. ALARMS

Format 1 has a critical alarm level. Take immediate action to clear the problem. Seek technical assistance if needed.

Format 2 is an automatically-generated report and is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 134.
Format 2 has an OMDB key of 137.

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-FF,SING-A
GENERIC . . . . . UNIX RTR R1.5, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT FAN SINGLE FAILURE` *a b*

[2] `REPT FAN SINGLE ALARM CLEARED` *a b*

2. REASON FOR OUTPUT

Format 1 reports a scan point transition indicating a single fan failure.

Format 2 reports a scan point transition indicating the fan alarm was cleared.

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

4. ACTION TO BE TAKEN

For Format 1, determine if the fan needs to be repaired.

For Format 2, no action is needed.

5. ALARMS

Format 1 has a minor alarm level. Take action as indicated in the report.

Format 2 is an automatically-generated report and is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 136.
Format 2 has an OMDB key of 137.

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-FF,SING-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT FAN SINGLE FAILURE` *a b*

[2] `REPT FAN SINGLE ALARM CLEARED` *a b*

2. REASON FOR OUTPUT

Format 1 reports a scan point transition indicating a single fan failure.

Format 2 reports a scan point transition indicating the fan alarm was cleared.

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

4. ACTION TO BE TAKEN

For Format 1, determine if the fan needs to be repaired.

For Format 2, no action is needed.

5. ALARMS

Format 1 has a major alarm level. The failure may not be service affecting, but take immediate action to clear the problem.

Format 2 is an automatically-generated report and is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 135.
Format 2 has an OMDB key of 137.

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-FIELD,MAINT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT FIELD MAINT` *a*

2. REASON FOR OUTPUT

To report that a poked input message from a field maintenance command page has failed.

3. VARIABLE FIELD DEFINITIONS

a = Reason for failure.

`DISPLAY PAGE FAILED` - A request for the display administration process to display the input page failed.

`INPUT BUFFER LIMIT EXCEEDED` - `Fmctrl` could not store all of the input message line in the command buffer.

`INPUT TEXT EXECUTION FAILED` - Failure to communicate with the craft shell when passing the input message for processing.

`MESSAGE NOT RECEIVED` - An attempt to update the screen via sending a message string to the display administration process has failed.

`UNABLE TO SEND MESSAGE TO DAP` - An attempt to communicate with the display administration process failed.

`UNKNOWN INDICATOR` - The input message was not found in the `fmctrl` command table.

4. ACTION TO BE TAKEN

If the error does not involve the display administration process, retry the command. If the error does involve display administration process (DAP), restart DAP. If this does not correct the problem, seek technical assistance.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 285.

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ID . . . . . REPT-FILESYS
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . SIM

1. FORMAT

`REPT FILESYS` *a* `OVERFLOW` *b*

2. REASON FOR OUTPUT

To report that a UNIX® RTR file system is full or nearly full.

3. VARIABLE FIELD DEFINITIONS

a = Severity of overflow condition:

`WARNING` — File system is in danger of overflowing, possibly within two hours.
`CRITICAL` — File system is completely full.

b = File system name.

4. ACTION TO BE TAKEN

Manual action may be required to remove data from the file system named. In order to remove data safely, the user must know which files in the file system are permanent and which are temporary. Refer to the application's specific document for file system maintenance and trouble-clearing procedures.

After the files are removed, the amount of free space in the file system can be displayed by using the UNIX® command `df`, or the craft command `OP:STATUS;FREEDISK`. If the free space is still low, or if the file system overflow condition continues, it is likely that some active processes have opens on files in the file system. The removal of files will not take effect until all opens to the file are closed.

The processes with active opens can be identified by using the UNIX® command `umount`, or the Craft command `INH:FILESYS;UMOUNT`. The `umount` command will fail to unmount if there are open files in the file system. The processes with active opens may have to be terminated to remove the overflow condition, but discretion is advised. In case of uncertainty, the next level of support personnel should be consulted.

In particular, when an overflow condition is reported for `/dev/tmp`, it is recommended that a corrective measure be taken to clear the overflow condition. A shortage in `/dev/tmp` free space may result in loss or mutilation of ROP messages, or other unforeseen malfunctions in the system.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Key
This message has an OMDB key of 451.

Input Messages

```
CLR:F;FILE
DEL:LOG
INH:F;UMOUNT
OP:ST;FRDISK
OP:ST;LSTDIR
```

Output Messages

```
CLR-F,FILE
OP-ST,FRDISK
OP-ST,LSTDIR
```

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-FMGR
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT FMGR a TABLE b FAIL
ERROR = c DATA X'd
```

2. REASON FOR OUTPUT

To report an alteration or a failed attempt to alter the size of file manager (FMGR) tables.

3. VARIABLE FIELD DEFINITIONS

a = Name of FMGR table:

- CAPABILITY - Capability table.
- FILE - File table.
- INODE - Inode table.

b = Action taken on FMGR table:

- GROWTH - Increase in size.
- DEGROWTH - Decrease in size.

c = Reason FMGR was unable to grow:

1 - System is currently in disk independent operation (DIOP).

2 - Insufficient time since last unsuccessful growth attempt.

3 - Resource is already at its maximum size.

4 - Cannot allocate a message buffer for message to the memory manager.

5 - Cannot allocate additional memory.

6 - Cannot send the message to the memory manager.

7 - Another task is growing the resource.

d = If non-zero, status indicates why memory menager cannot allocate additional memory.

4. ACTION TO BE TAKEN

If GROWTH failure, reduce system load. If DEGROWTH failure, FMGR will deallocate as needed at a later time.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

None.

ID . . . . . REPT-FMGR,DSW
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT FMGR DIR SW FAILED:
INODE a OPEN BY PID b ON c
```

2. REASON FOR OUTPUT

To report that a directory switch request failed because of a busy inode.

3. VARIABLE FIELD DEFINITIONS

a = The busy inode number.

b = The process ID of the process that has the inode open.

c = The name of the file system that contains the inode.

4. ACTION TO BE TAKEN

Kill the process(es) that has the inode open and try the switch again. Repeat until all processes that have inodes open in the directory structure have been killed. If the switch still does not succeed, report the problem to UNIX® RTR system support.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 678.

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-FMGR,ECD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT FMGR ECD` *a* `PID=`*b* `UID=`*c d*

2. REASON FOR OUTPUT

To report that the file manager attempted to access an equipment configuration database (ECD) record defining a special device file. In the attempt, something malfunctioned.

3. VARIABLE FIELD DEFINITIONS

a = `RETURN-XX`. The `lla` access function failed, returning `xx`. This would normally indicate that the special device file is not in the database.

= `BAD-PERM`. One or more of the file permissions exceeded the value of seven.

= `BAD-DCN`. The major device number is invalid for the specified driver type.

= `BAD-DRIVER`. The driver type is undefined.

= `BAD-FIFO`. The partition number exceeded the maximum allowed for a fifo device.

b = Process ID of the process that sent the message to the `FMGR`.

c = Utility ID of the process that sent the message to the `FMGR`.

d = Fully qualified pathname for which the ECD access occurred.

4. ACTION TO BE TAKEN

The driver required information normally extracted from the ECD will instead be used as specified in the special device file contained in the file system. If the special device file information (the `mdct-rid`, partition, and dcn) is inappropriate, then the ECD must be corrected.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 336.

ID . . . . . REPT-FMGR,FILSYS
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT FMGR` *a* `IN FILE SYSTEM` *b*

2. REASON FOR OUTPUT

To report that space for a file system could not be allocated during falloc() or writetape() (POSSIBLE CORRUPTION), or that static data in the root file system incore super block was corrupted but has been recovered (SUPER BLOCK RECOVERED).

3. VARIABLE FIELD DEFINITIONS

a = Reason for FMGR FILSYS output message:

`POSSIBLE CORRUPTION` - Build of a file system's bitmap failed (during falloc() or writetape()), and file system may be corrupted.

`FMGR INCORE SUPER BLOCK RECOVERED` - Static data in root file system incore super block was corrupted but has been recovered.

b = The name of the file system.

4. ACTION TO BE TAKEN

For POSSIBLE CORRUPTION, run file system audits. For FMGR INCORE SUPER BLOCK RECOVERED, file system audit has been requested; examine output when audit completes. If condition persists, report audit results and name of file system to next level of technical support.

5. ALARMS

None.

6. REFERENCES

OMDB Key
This message has an OMDB key of 518.

Input Messages
AUD:FMGR
AUD:FSBLK
AUD:FSLINK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-FMGR,MOUNT
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT FMGR MOUNT FAILED:
PROCESS PID=a,UID=b,HAS OPEN MOUNT POINT=c
```

2. REASON FOR OUTPUT

To report that mount failed and print the pid and uid of the process which has the mount point open.

3. VARIABLE FIELD DEFINITIONS

a = The pid of the process which has the mount point open.

b = The uid of the process which has the mount point open.

c = The name of the mount point.

4. ACTION TO BE TAKEN

Kill the processes which have the mount point open and retry the mount. If the mount still does not succeed, report the problem to UNIX® RTR System Support.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 651.

ID . . . . . REPT-FMGR,NF
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT FMGR NONTASK FAULT` *a* `ADDR` *b*

2. REASON FOR OUTPUT

To report that a file manager fault has occurred that was not within a task.

3. VARIABLE FIELD DEFINITIONS

a = Fault code. See DFC Appendix I, `DFC-APPI`.

b = Program address at which the fault occurred.

4. ACTION TO BE TAKEN

The fault has been resolved by the file manager and no further action should be necessary. Should this condition become chronic, the problem should be referred to UNIX® RTR System Support.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 337.

Output Appendix
`DFC-APPI`

ID . . . . . REPT-FMGR,OVLD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT FMGR:` *a* `TABLE OVERLOAD` *b*`, COUNT =` *c*

2. REASON FOR OUTPUT

To report that one of the file manager tables is approaching an overload condition or to report that the overload condition has been cleared.

3. VARIABLE FIELD DEFINITIONS

a = Name of file manager internal table.

`INODE` - Inode table.

`FILE` - File table.

`CAP` - Capability table.

b = Indicates severity of overload.

`WARNING` - Most table entries have been allocated, still a few free entries.

`CRITICAL` - Very close to complete exhaustion.

`CLEARED` - A number of table entries have been freed since last warning/critical report.

c = Number of table entries in use.

4. ACTION TO BE TAKEN

No action is necessary. `AUD:FMGR;2`, `AUD:FMGR;4`, or `AUD:FMGR;5` could be taken to ensure correctness of the use count of the inode, file, or capability table.

5. ALARMS

None.

6. REFERENCES

Input Messages
`AUD:FMGR`

Output Messages
AUD-FMGR2
AUD-FMGR4
AUD-FMGR5

ID . . . . . REPT-FMGR,PROC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT FMGR PROCESS KILLED BY UNCONDITIONAL MOUNT
PID=a, UID=b, MOUNT POINT=c
```

2. REASON FOR OUTPUT

To report that the FMGR has terminated a process due to an unconditional mount request.

If the FMGR is requested to mount a file system unconditionally, all non-kernel processes that have the mount point open (for example, a process with the mount point at its current working directory) will be terminated.

3. VARIABLE FIELD DEFINITIONS

a = Process ID of the terminated process.

b = Utility ID of the terminated process.

c = Mount point of the unconditional mount request.

4. ACTION TO BE TAKEN

Important system processes should restart automatically, so no direct action is required of the craft. Save the receive-only printer (ROP) output and seek technical assistance to determine why it was necessary to terminate the indicated process.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 602.

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-FMGR,TS
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . AUDL

1. FORMAT

`REPT FMGR TASK STATUS` *a*`, PID=`*b* `TYPE=`*c* `ADDR=`*d*

2. REASON FOR OUTPUT

To report that a file manager task has been prematurely terminated.

3. VARIABLE FIELD DEFINITIONS

a = Reason for task termination:

`FAULT` - Task was running when a file manager fault occurred.

`PHASE1` - Task was running when a phase level 1 occurred.

`TIMEOUT` - Task execution time exceeded limit.

b = Process ID of the process that requested the task: in decimal.

c = Type of message (from `head/mstyp.h`) that initiated the task: in decimal.

d = Address of resource that a timed out task was waiting for: in hexadecimal.

4. ACTION TO BE TAKEN

An error condition has been resolved by the file manager. No further action is necessary.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 335.

ID . . . . . REPT-FMGR-UMNTFLD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT FMGR UNMOUNT FAILED:
PROCESS a HAS OPEN FOR INODE b FOR c
```

2. REASON FOR OUTPUT

To report that an unmount request failed because the file system is busy, and to specify which processes have locks on files in the file system to be unmounted.

3. VARIABLE FIELD DEFINITIONS

a = The process ID of the process which has the inode open.

b = The busy inode number.

c = The name of the file system.

4. ACTION TO BE TAKEN

Support processes such as recent change, audits and measurements may be killed. Kill the processes that have the inodes open and try the unmount again. Some processes affect call processing and should never be killed. If the unmount still does not succeed, report the problem to the next level of technical support and/or contact technical support for assistance in determining which processes may be killed.

5. ALARMS

None. This automatically generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 583.

ID . . . . . REPT-FMGR,UNMNT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT FMGR` *a* `UNMOUNTED DUE TO DISK REMOVAL`

[2] `REPT FMGR UNMOUNT FAILED:`
`PROCESS` *b* `HAS OPEN FOR INODE` *c* `FOR` *d*

2. REASON FOR OUTPUT

Format 1 reports that the file manager has unmounted the named file system due to disk removal (by fault or request).

Format 2 reports that an unmount request failed because the file system is busy, and to specify which processes have locks on files in the file system to be unmounted.

3. VARIABLE FIELD DEFINITIONS

a = The name of the file system unmounted.

b = The process ID of the process which has the inode open.

c = The busy inode number.

d = The name of the file system.

4. ACTION TO BE TAKEN

For Format 1, no action needs to be taken.

For Format 2, support processes such as recent change, audits and measurements may be killed. Kill the processes that have the inodes open and try the unmount again. Some processes affect call processing and should never be killed. If the unmount still does not succeed, report the problem to the next level of technical support and / or contact technical support for assistance in determining which processes may be killed.

5. ALARMS

Formats 1 and 2 are automatically-generated reports and are for information only.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

Input Message
Format 1 `RMV:MHD`

OMDB Key
Format 2 This message has an OMDB Key of 583.

ID . . . . . REPT-FMGR,WNDW
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT FMGR ACCESS WINDOW TO BLOCK DEVICE FOR MOUNTED
FILE SYSTEM IS a
```

2. REASON FOR OUTPUT

To report that the window to access the block device for mounted file system is open/closed for write operation. This message will be produced as a result of the `openwd`, or `closewd` UNIX® commands.

3. VARIABLE FIELD DEFINITIONS

a = `OPEN` - the access window is open.

= `CLOSED` - the access window is closed.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

None.

ID . . . . . REPT-FUSE,ALM
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT FUSE ALARM` *a* `CABINET`

[2] `REPT FUSE ALARM CLEARED` *a* `CABINET`

2. REASON FOR OUTPUT

To report on fuse alarm scan points.

Format 1 reports a scan point transition which indicates a fuse alarm in one of the cabinets of the 3B21D computer.

Format 2 reports a scan point transition which indicates a fuse alarm was cleared in one of the cabinets of the 3B21D computer.

3. VARIABLE FIELD DEFINITIONS

a = Basic or growth cabinet.

4. ACTION TO BE TAKEN

For Format 1, determine if any of the fuses, within the indicated cabinet of the 3B21D computer, need to be repaired.

For Format 2, no action is needed.

5. ALARMS

Format 1 has a major alarm. The problem may not be service affecting, but take immediate action as indicated in the report.

Format 2 is an automatically-generated report and is for information only.

6. REFERENCES

OMDB Key(s)
Format 1 has an OMDB key of 698 (major alarm).
Format 2 has an OMDB key of 747.

SEE PROPRIETARY NOTICE ON COVER PAGE

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-GRASP-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `REPT GRASP` *a b* [*c*]

[2] `REPT GRASP RMBPT` *d* `COMPLETED`
`BREAKPOINT CLEARED SYSTEM DIRECTIVE #`*e*

[3] `REPT GRASP BREAKPOINT` *f* `IN CRITICAL`
`PLACE REMOVED`

[4] `REPT GRASP BREAKPOINT FIRED`
`UTILID=`*g* `PID=`*h* `BREAKPOINT=`*i* `FIRENUM=`*j*

[5] `REPT GRASP COMPLETED`

[6] `REPT GRASP NOT STARTED`
`INVALID ACTION FIELD` *d*

[7] `REPT GRASP NOT STARTED`
`INVALID ID FIELD` *e*

[8] `REPT GRASP NOT STARTED`
`RETRY LATER` *f*

2. REASON FOR OUTPUT

To report on generic access package (GRASP) conditions of a general or emergency nature.

3. VARIABLE FIELD DEFINITIONS

a = Condition reported:

`DATA BUF` — GRASP dump data is affected.
`DYNAMIC` — The status of the dynamic timer is changing.
`FLDOP` — There are other field operation processes with which GRASP cannot coexist. GRASP cannot proceed.

SEE PROPRIETARY NOTICE ON COVER PAGE

MESSAGE BUF — GRASP completion messages are affected.
STATIC — The status of the static timer is changing.
UC — The utility circuit is affected.

b = Status:

ABORT — GRASP is being terminated. Do not issue further messages immediately. No further message expected.
FULL — The trace was stopped as requested in the INIT:UMEM input message. Trace memory is full.
LOST — The timer override has been lost and the default will take effect with the next debugging session.
OVFL — More data is being produced than can be printed. The oldest data is overwritten with the newest data.
RESET — The default value of the timer is in effect. BREAKPOINT CLEARED BYSYSTEM DIRECTIVE #G*e*, where *e* indicates the generic access package (GRASP) sequence number associated with the breakpoint removed.
UNAV — The facility in *a* is not available.

c = WAS RUNNING NOW STOPPED. Indicates that the trace was stopped. Printed only if *a* = UMEM and *b* = FULL.

d,f,i = Numeric identifier (one or more decimal digits) for the breakpoint affected.

e = Generic Access Package (GRASP) execution sequence number.

g = Utility ID (UID) of the target process as specified in Practice 254-341-115.

h = Process ID (PID) of the target process.

j = Firing number (one or more decimal digit) of breakpoint.

k = RANGE ERROR (DTIME) or (STIME)
RANGE ERROR (UNTIL)

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 495.
Format 2 has an OMDB key of 499.
Format 3 has an OMDB key of 501.
Format 4 has an OMDB key of 500.

Input Messages

```
ALW:UTILFLAG
IN:DTIME
IN:STIME
INIT:UMEM
WHEN:PID
WHEN:UID
```

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

ID . . . . . REPT-GRASP-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `REPT GRASP` *a b* [*c*]
`REPT GRASP` *l c*

[2] `REPT GRASP RMBPT` *d* `COMPLETED`
`BREAKPOINT CLEARED SYSTEM DIRECTIVE` *#e*

[3] `REPT GRASP BREAKPOINT` *f* `IN CRITICAL PLACE REMOVED`

[4] `REPT GRASP BREAKPOINT FIRED`
`UTILID=`*g* `PID=`*h* `BREAKPOINT=`*i* `FIRENUM=`*j*

[5] `REPT GRASP COMPLETED`

[6] `REPT GRASP NOT STARTED`
`INVALID ACTION FIELD`

[7] `REPT GRASP NOT STARTED`
`INVALID ID FIELD` *k*

[8] `REPT GRASP NOT STARTED`
`RETRY LATER`

2. REASON FOR OUTPUT

To report on generic access package (GRASP) conditions of a general or emergency nature.

3. VARIABLE FIELD DEFINITIONS

a = Condition reported:

`FLDOP` — There are other field operation processes with which GRASP cannot coexist. GRASP cannot proceed.
`DYNAMIC` — The status of the dynamic timer is changing.
`STATIC` — The status of the static timer is changing.
`UC` — The utility circuit is affected.
`MESSAGE BUF` — GRASP completion messages are affected.
`DATA BUF` — GRASP dump data is affected.

b = Status. Includes one of the following:

`ABORT` — GRASP is being terminated. Stop issuing additional commands immediately. Expect no additional message.

SEE PROPRIETARY NOTICE ON COVER PAGE

OVFL — More data is being produced than can be printed. The oldest data is overwritten with the newest data.
FULL — The trace was stopped as requested in the INIT:UMEM input message. Trace memory is full.
UNAV — The facility in *a* is not available.
RESET — The default value of the timer is in effect.
LOST — The timer override has been lost and the default will take effect with the next debugging session.

c = CONDITION RUNNING WAS RUNNING NOW STOPPED. The trace was stopped. Printed only if *a* = UMEM and *b* = FULL, or *l* = "condition triggered."

d,f,i = Numeric identifier (one or more decimal digits) for the breakpoint affected.

e = Generic Access Package (GRASP) execution sequence number.

g = Utility ID (UID) of the target process as specified in Practice 254-341-115.

h = Process ID (PID) of the target process.

j = Firing number (one or more decimal digits) of breakpoint.

k = RANGE ERROR (DTIME)
RANGE ERROR (UNTIL)

l = CONDITION TRIGGERED. An external event trigger occurred.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

Input Messages
ALW:UTILFLAG
IN:DTIME
INIT:UMEM
WHEN:COND

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description 3B20D Processor*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-GRASP-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `REPT GRASP` *a b* [*c*]
`REPT GRASP` *l c*

[2] `REPT GRASP RMBPT` *d* `COMPLETED`
`BREAKPOINT CLEARED SYSTEM DIRECTIVE #`*e*

[3] `REPT GRASP BREAKPOINT` *f* `IN CRITICAL PLACE REMOVED`

[4] `REPT GRASP BREAKPOINT FIRED`
`UTILID=`*g* `PID=`*h* `BREAKPOINT=`*i* `FIRENUM=`*j*

[5] `REPT GRASP COMPLETED`

[6] `REPT GRASP NOT STARTED`
`INVALID ACTION FIELD`

[7] `REPT GRASP NOT STARTED`
`INVALID ID FIELD` *k*

[8] `REPT GRASP NOT STARTED`
`RETRY LATER`

2. REASON FOR OUTPUT

To report on generic access package (GRASP) conditions of a general or emergency nature.

3. VARIABLE FIELD DEFINITIONS

a = Condition reported:

`FLDOP`	— There are other field operation processes with which GRASP cannot coexist. GRASP cannot proceed.
`DYNAMIC`	— The status of the dynamic timer is changing.
`STATIC`	— The static memory area internal to GRASP is affected.
`UC`	— The utility circuit is affected.
`MESSAGE BUF`	— GRASP completion messages are affected.
`DATA BUF`	— GRASP dump data is affected.

SEE PROPRIETARY NOTICE ON COVER PAGE

b = Status. Includes one of the following:

ABORT — GRASP is being terminated. Stop issuing additional commands immediately. Expect no additional message.
OVFL — More data is being produced than can be printed. The oldest data is overwritten with the newest data.
FULL — The trace was stopped as requested in the INIT:UMEM input message. Trace memory is full.
UNAV — The facility in *a* is not available.
RESET — The default value of the timer is in effect.
LOST — If *a* = DYNAMIC, then the timer override has been lost and the default will take effect with the next debugging session. If *a* = STATIC, then the static memory area used by GRASP is full, or an internal error occurred in trying to allocate memory from this area.

c = CONDITION RUNNING WAS RUNNING NOW STOPPED. The trace was stopped. Printed only if *a* = UMEM and *b* = FULL, or *l* = "condition triggered."

d,f,i = Numeric identifier (one or more decimal digits) for the breakpoint affected.

e = Generic Access Package (GRASP) execution sequence number.

g = Utility ID (UID) of the target process as specified in Practice 254-341-115.

h = Process ID (PID) of the target process.

j = Firing number (one or more decimal digits) of breakpoint.

k = RANGE ERROR (DTIME)
RANGE ERROR (UNTIL)

l = CONDITION TRIGGERED. An external event trigger occurred.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

Input Messages

```
ALW:UTILFLAG
IN:DTIME
INIT:UMEM
WHEN:COND
```

Practice 254-341-115 *Generic Access Package (GRASP) and Enhanced Generic Access Package (EGRASP) Software Subsystem Description*

ID . . . . . REPT-GROWTH
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . VAR,DSKSYS

1. FORMAT

`REPT GROWTH` *a b c* [*d*]

2. REASON FOR OUTPUT

To report when a unit is grown. This could be either due to normal initialization or due to a craft person dynamically growing a unit.

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

c = `COMPLETED`, `IN PROGRESS`, or `FAILED`.

d = Reason for failure.

d is printed only if *c* = `FAILED`.

For an Input/Output Processor (IOP) unit, refer to IOP Appendix J, `IOP-APPJ` for an explanation of the error code.

4. ACTION TO BE TAKEN

No action is needed if *c* indicates `COMPLETED` or `IN PROGRESS`.

If *c* is `FAILED` and the unit name is an IOP or an IOP subunit, check the error code to determine action.

If *c* is `FAILED` and the unit name is a DFC or a DFC subunit, see accompanying `REPT-DKDRV` report on the ROP for the error/info code. Refer to DFC Appendix A, `DFC-APPA` for an explanation of the error/info code.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
There are OMDB keys of 197, 198, and 241.

Output Appendixes
`DFC-APPA`

SEE PROPRIETARY NOTICE ON COVER PAGE

IOP-APPJ

Output Message
REPT-DKDRV

ID . . . . . REPT-HSD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAIPR,SPERR,MAINT

1. FORMAT

This message has four formats.

[1] `REPT HSD` *a* {`ERROR` *b* [*c*] [`COMPL CODE` *d*] |
`UNIDENTIFIED RESPONSE WD1=`*e* `WD2=`*f*}

[2] `REPT HSD` *a* `WARNING LAST LINK IN DUPLEX LINK GROUP BEING REMOVED`

[3] `REPT HSD` *a* `STARTED`

[4] `REPT HSD` *a* `STOPPED`

2. REASON FOR OUTPUT

Format 1 reports a high speed synchronous data (HSD) link related software or hardware error.

Format 2 reports the last available link in a duplex link group is being removed from service.

Format 3 reports that the HSD has changed state from STBY to ACT. An HSD will change to ACT state when the level 2 connection is established, and the data link is in information transfer state.

Format 4 reports that the HSD has changed state from ACT to STBY. An HSD will change to STBY state when the level 2 connection is terminated, and the level 1 connection remains established.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies, in hexadecimal notation, the point within the IOP driver (IODRV) where a software or hardware error was detected. See IOP Appendix F, `IOP-APPF`.

c = Character string giving more information about the error identified in *b* above. Refer to IOP Appendix F, `IOP-APPF` for additional explanation.

d = Hardware error type, in hexadecimal notation. See IOP Appendix A, `IOP-APPA`.

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e = First word of an unidentified completion report.

f = Second word of an unidentified completion report.

4. ACTION TO BE TAKEN

Format 1 indicates error conditions that could cause the removal of a unit. Any removed unit should be repaired and then restored to service.

For Format 2, removal of the last available link in a duplex link group indicates that no data transmission can take place over the link facility. One of the links in the group should be repaired and then restored to service.

Formats 3 and 4 are informational messages and indicate that the HSD has changed states. No action is necessary.

5. ALARMS

Format 1 has no alarm. The automatically-generated report is for information only.

Format 2 has a major alarm. A major alarm may not be service affecting, but take immediate action as indicated in the report.

Formats 3 and 4 have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Key(s)
Format 1 has an OMDB key of 208.
Format 2 has an OMDB key of 590.
Formats 3 and 4 have an OMDB key of 308.

Output Appendix(es)
IOP-APPA
IOP-APPB

Input Message(s)
CLR:IODRV
DGN:HSDC
RMV:HSD
RST:HSD
UPD:OMDB

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message(s)

```
RCVRY-HSD
RCVRY-HSDC
RCVRY-IOP
REPT-HSD
REPT-IOP
REPT-RCVRY,HSD
REPT-RCVRY,HSDC
REPT-RCVRY,IOP
```

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ID . . . . . REPT-HSDC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

[1] `REPT HSDC` *a* {`ERROR` *b* [`COMPL CODE` *c*] |
`UNIDENTIFIED RESPONSE WD1=`*d* `WD2=`*e*}

[2] `REPT HSDC` *a* `CODE VERSION X'`*f*

[3] `REPT HSDC` *a* `FLASH RAM VERSION X'`*g*

2. REASON FOR OUTPUT

Format 1 reports a high-speed synchronous data link controller (HSDC) related software or hardware error.

Format 2 is output during the restoration of the unit.

Format 3 is requested by diagnostics and output prior to the update of flash RAM on the unit.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies the point, in hexadecimal notation, within IODRV (IOP driver) where a software or hardware error was detected. See IOP Appendix F, `IOP-APPF`.

c = Hardware error type, in hexadecimal notation. See IOP Appendix A, `IOP-APPA`.

d = First word of an unidentifiable completion report.

e = Second word of an unidentifiable completion report.

f = Peripheral controller pump code version number.

g = Peripheral controller flash RAM version number.

4. ACTION TO BE TAKEN

Format 1 is an error message that indicates error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

For Formats 2 and 3, no action is necessary unless the controller and/or its subdevices are not acting normal, or cannot be restored. Contact the service organization with the code version number and/or flash RAM version number that was used.

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5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key(s)
Format 1 has an OMDB key of 208.
Formats 2 and 3 have an OMDB key of 226.

Output Appendix(es)
`IOP-APPA`
`IOP-APPF`

Input Message(s)
`CLR:IODRV`
`DGN:SDLC`
`RMV:SDLC`
`RST:SDLC`

Output Message(s)
`RCVRY-HSDC`
`RCVRY-IOP`
`REPT-IOP`
`REPT-RCVRY,HSDC`
`REPT-RCVRY,IOP`

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ID . . . . . REPT-ILL,INSTRCT
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . EIH

1. FORMAT

```
REPT ILLEGAL INSTRUCTION X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e


            SAVE STATE
PA: gggggggg  PSW: hhhhhhhh  PSBR: iiiiiii  SSBR: jjjjjjj


          GENERAL REGISTERS
 0: kkkkkkkk  1: kkkkkkkk  2: kkkkkkkk  3: kkkkkkkk
 4: kkkkkkkk  5: kkkkkkkk  6: kkkkkkkk  7: kkkkkkkk
 8: kkkkkkkk  9: kkkkkkkk  A: kkkkkkkk  B: kkkkkkkk
 C: kkkkkkkk  D: kkkkkkkk  E: kkkkkkkk  F: kkkkkkkk
UTILITY ID: lllllll       PROCESS NUMBER: mmmmmmmm

REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

The data in the instruction buffer did not correspond to a valid instruction.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

g = The program address at the time of initialization (in hexadecimal). For software requested initializations this is the address of the PHASE OST and NOT the address where the problem was detected.

h = The processor status word (in hexadecimal). Among the information it contains are the execution level and the processor mode, for example, kernel mode, kernel process, supervisor process, or user process. See *System Maintenance Manual*, Appendix P.

i = The contents of the primary segment base register (in hexadecimal).

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j = The contents of the secondary segment base register (in hexadecimal).

k = The contents of the sixteen general purpose registers (in hexadecimal).

R9: argument pointer
RA: frame pointer
RB: stack pointer

l = Process utility id (in hexadecimal). See *System Maintenance Manual*, Problem Table.

m = Process number (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Forward the software log entry information to your technical assistance organization.

5. ALARMS

None.

6. REFERENCES

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

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ID . . . . . REPT-ILL,OPRND
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . EIH

1. FORMAT

```
REPT ILLEGAL OPERAND X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e


            SAVE STATE
PA: gggggggg  PSW: hhhhhhhh  PSBR: iiiiiii  SSBR: jjjjjjj


           GENERAL REGISTERS
 0: kkkkkkkk  1: kkkkkkkk  2: kkkkkkkk  3: kkkkkkkk
 4: kkkkkkkk  5: kkkkkkkk  6: kkkkkkkk  7: kkkkkkkk
 8: kkkkkkkk  9: kkkkkkkk  A: kkkkkkkk  B: kkkkkkkk
 C: kkkkkkkk  D: kkkkkkkk  E: kkkkkkkk  F: kkkkkkkk
UTILITY ID: lllllll       PROCESS NUMBER: mmmmmmmm

REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

One of the operands specified in an instruction is invalid for the particular opcode.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

g = The program address at the time of initialization (in hexadecimal). For software requested initializations this is the address of the PHASE OST and NOT the address where the problem was detected.

h = The processor status word (in hexadecimal). Among the information it contains are the execution level and the processor mode, for example, kernel mode, kernel process, supervisor process, or user process. See *System Maintenance Manual*, Appendix P.

i = The contents of the primary segment base register (in hexadecimal).

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j = The contents of the secondary segment base register (in hexadecimal).

k = The contents of the sixteen general purpose registers (in hexadecimal).

R9: argument pointer
RA: frame pointer
RB: stack pointer

l = Process utility id (in hexadecimal). See *System Maintenance Manual*, Problem Table.

m = Process number (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Forward the software log entry information to your technical assistance organization.

5. ALARMS

None.

6. REFERENCES

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

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ID . . . . . REPT-ILL,STACK
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . EIH

1. FORMAT

```
REPT ILLEGAL STACK SWITCH  X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e


            SAVE STATE
PA: gggggggg  PSW: hhhhhhhh  PSBR: iiiiiii  SSBR: jjjjjjj


           GENERAL REGISTERS
 0: kkkkkkkk  1: kkkkkkkk  2: kkkkkkkk  3: kkkkkkkk
 4: kkkkkkkk  5: kkkkkkkk  6: kkkkkkkk  7: kkkkkkkk
 8: kkkkkkkk  9: kkkkkkkk  A: kkkkkkkk  B: kkkkkkkk
 C: kkkkkkkk  D: kkkkkkkk  E: kkkkkkkk  F: kkkkkkkk
UTILITY ID: lllllll       PROCESS NUMBER: mmmmmmmm

REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

The program attempted to switch to a private stack or attempted to switch to the kernel stack when it was already running on the kernel stack.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

g = The program address at the time of initialization (in hexadecimal). For software requested initializations this is the address of the PHASE OST and NOT the address where the problem was detected.

h = The processor status word (in hexadecimal). Among the information it contains are the execution level and the processor mode, for example, kernel mode, kernel process, supervisor process, or user process. See *System Maintenance Manual*, Appendix P.

i = The contents of the primary segment base register (in hexadecimal).

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j = The contents of the secondary segment base register (in hexadecimal).

k = The contents of the sixteen general purpose registers (in hexadecimal).

R9: argument pointer
RA: frame pointer
RB: stack pointer

l = Process utility id (in hexadecimal). See *System Maintenance Manual*, Problem Table.

m = Process number (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Forward the software log entry information to your technical assistance organization.

5. ALARMS

None.

6. REFERENCES

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

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ID . . . . . REPT-INHADM
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has five formats.

[1] `REPT INHADM UNABLE TO MAINTAIN INHIBITS`

[2] `REPT INHADM FAULTED FCODE` *a*

[3] `REPT INHADM UNABLE TO SEND INHIBIT MESSAGE TO DRIVER` *b*

[4] `REPT INHADM CANNOT GET UCB RECORD`

[5] `REPT INHADM MINOR ALARM FROM INHIBIT ADMINISTRATOR`

2. REASON FOR OUTPUT

For Format 1, to report that the inhibit administrator process attempted to maintain consistency of the error interrupt inhibits between the emergency action interface (EAI) and the unit control blocks (UCBs) in the equipment configuration database (ECD) during an initialization, but failed to access the ECD or could not send a message to a driver. The error interrupt inhibit options selected by the EAI must be propagated to the ECD on any initialization to ensure consistency.

For Format 2, the inhibit administrator received the fault *a*.

For Format 3, the inhibit administrator does not inhibit a device directly, it sends a message to the corresponding driver. This error indicates that the "queuemn" system call failed when sending to the driver with process id (PID) *a*.

For Format 4, an ECD access function (either `lla_opensq` or `lla_nextseq`) failed when accessing a UCB record.

For Format 5, inhibiting hardware checks, software checks, and error interrupts can prevent the system from recovering automatically from hardware or software faults. This error is printed when any of the checks are inhibited as a warning to the user.

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3. VARIABLE FIELD DEFINITIONS

a = Fault code received by INHADM. See the Fault Code Appendix, FAULT-CODE-APP.

b = PID of driver.

4. ACTION TO BE TAKEN

For Formats 1-4, run ECD audits. If there are no errors in the ECD, then seek technical assistance. For format 5, no action is required.

5. ALARMS

None. This automatically-generated report is for information only.

Minor alarm. Take action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 408.
Format 2 has an OMDB key of 407.
Format 3 has an OMDB key of 410.
Format 4 has an OMDB key of 409.
Format 5 has an OMDB key of 411.

Output Appendix
FAULT-CODE-APP

Input Messages
OP:ERRCHK

Output Messages
OP-ERRCHK

ID . . . . . REPT-INHIBIT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT INHIBIT SCAN POINT` *a* `ON SCSD` *b*

2. REASON FOR OUTPUT

To report that the scanner and signal distributor administrator (SCSDA) has detected a scan point which is chattering (greater than four transistors a second).

3. VARIABLE FIELD DEFINITIONS

a = Physical scan point number.

b = Member number.

4. ACTION TO BE TAKEN

This message indicates that a scan point is changing state continually. This could cause a message buffer overload for the clients of the SCSDA monitoring that point. This scan point should be investigated to determine why it is changing state frequently.

5. ALARMS

Minor alarm. Take action as indicated in the report.

6. REFERENCES

None.

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ID . . . . . REPT-INIT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT INIT DEVICE STATUS
a b c
```

2. REASON FOR OUTPUT

To report initial device states obtained from the equipment configuration database (ECD) by the real time status report program.

3. VARIABLE FIELD DEFINITIONS

This message is printed as a table with multiple lines containing the following items.

a = Hardware unit name:

- CSU - Cache store unit
- CU - Control unit
- DFC - Disk file controller
- EAI - Emergency action interface
- IOP - Input/output processor
- MHD - Moving head disk
- MTTY - Maintenance teletypewriter
- MTTYC - Maintenance teletypewriter controller
- ROP - Receive only printer
- SCC - Switching control center

b = Unit number in decimal notation.

c = Unit status:

```
ACTIVE
GROWTH IN PROGRESS
INITIALIZING
OFF LINE
OUT OF SERVICE
STANDBY
UNAVAILABLE
UNEQUIPPED
```

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 310.

ID . . . . . REPT-INVLD,ER-INT
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT INVALID ERROR INTERRUPT TYPE IS: a X'b
ER: cccccccc  UER: dddddddd  UER1: eeeeeeee
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

Error interrupt handler (EIH) was dispatched to handle an error but no error bit in the error registers was set.

3. VARIABLE FIELD DEFINITIONS

a = The invalid error interrupt type.

b = The sequence number of the report (in hexadecimal).

c = The contents of the error register (ER), in hexadecimal. See *System Maintenance Manual*, Appendix F.

d = The contents of the microinterrupt error register (UER), in hexadecimal. See *System Maintenance Manual*, Appendix N.

e = The contents of the microinterrupt error register 1 (UER1), in hexadecimal. See *System Maintenance Manual*, Appendix O.

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Run diagnostics on the CU in which the error occurred and forward the ERRLOG and receive-only printer (ROP) output to the responsible engineer.

5. ALARMS

None.

6. REFERENCES

Output Message
DGN-CU

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-INVLD,ER-NUM
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

REPT INVALID ERROR NUMBER: *a* SEQ NO: X'*b*

2. REASON FOR OUTPUT

An error number which error interrupt handler (EIH) does not recognize occurred.

3. VARIABLE FIELD DEFINITIONS

a = The invalid error number.

b = The sequence number of the report (in hexadecimal).

4. ACTION TO BE TAKEN

If possible, the processors should be switched so that the faulty control unit (CU) can be diagnosed. In any case, forward the results of the diagnostic and the ERROR log to the responsible engineer.

5. ALARMS

None.

6. REFERENCES

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

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ID . . . . . REPT-INVLD,MNTC
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . EIH

1. FORMAT

```
REPT INVALID MAINTENANCE CHANNEL ORDER X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e


            SAVE STATE
PA: gggggggg  PSW: hhhhhhhh  PSBR: iiiiiii  SSBR: jjjjjjj


           GENERAL REGISTERS
 0: kkkkkkkk  1: kkkkkkkk  2: kkkkkkkk  3: kkkkkkkk
 4: kkkkkkkk  5: kkkkkkkk  6: kkkkkkkk  7: kkkkkkkk
 8: kkkkkkkk  9: kkkkkkkk  A: kkkkkkkk  B: kkkkkkkk
 C: kkkkkkkk  D: kkkkkkkk  E: kkkkkkkk  F: kkkkkkkk
UTILITY ID: lllllll       PROCESS NUMBER: mmmmmmmm
ONLINE MCH STATUS:   nnnnnnnn
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

A maintenance channel order has been sent to a processor that is not disabled or marked off-line or the maintenance channel is faulty.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

g = The program address at the time of error interrupt (in hexadecimal). For software requested initializations this is the address of the PHASE OST and NOT the address where the problem was detected.

h = The processor status word (in hexadecimal). Among the information it contains are the execution level and the processor mode, for example, kernel mode, kernel process, supervisor process, or user process. See the *System Maintenance Manual*, Appendix P.

i = The contents of the primary segment base register (in hexadecimal).

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j = The contents of the secondary segment base register (in hexadecimal).

k = The contents of the sixteen general purpose registers (in hexadecimal).

R9: argument pointer
RA: frame pointer
RB: stack pointer

l = Process utility id (in hexadecimal). See the *System Maintenance Manual*, Problem Table.

m = Process number (in hexadecimal).

n = Online maintenance channel status (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

If the error occurs repeatedly, run diagnostics on the off-line processor. If no problem is found, switch processors and run diagnostics on the off-line processor.

5. ALARMS

None.

6. REFERENCES

Output Message
DGN-CU

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-IO,CHNL-ERR
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT IO CHANNEL ERROR X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e
CHANNEL ADDRESS:  ffffffff  CHANNEL STATUS REGISTER:  gggggggg
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

The faulty unit encountered a fatal error condition. The channel status and channel address are provided.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report.

b = Active control unit (CU).

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

f = Input/output address of the channel (in hexadecimal).

g = Dual serial channel (DSCH) channel status register (in hexadecimal). See the *System Maintenance Manual*, Appendix E.

z = Real time clock (in hexadecimal notation).

4. ACTION TO BE TAKEN

Examine the DSCH channel status register layout to determine the error type and run diagnostics on the unit.

5. ALARMS

None.

6. REFERENCES

Output Message
`DGN-UNIT`

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ID . . . . . REPT-IODRV,AT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT IODRV ATTRIBUTE FILE UPDATED
```

2. REASON FOR OUTPUT

To report that the attribute file for the input/output processor (IOP) driver messages was inconsistent with the IOP driver, and has been updated to the correct settings.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 161.

Input Message
`OP:IODRV`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-IODRV,ERR
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . VAR

1. FORMAT

`REPT IODRV ERR X'ld50000` *a b c d e f g*

2. REASON FOR OUTPUT

To report an input/output processor (IOP) related software error.

3. VARIABLE FIELD DEFINITIONS

a = Single character for device type. See the *Processor Recovery Message Guide*, Appendix D.

b = Real time stamp in eight alphanumericals.

c = Single character for the unit number in hexadecimal.

d = Alphanumerical location code indicating calling function:

1	— ioccerror
2	— cserror
3	— sserror
4	— dserror
7	— pcnotequip
8	— pcommoff
a	— prtfault
10-13	— kfault
15	— procfmsg
16	— callphase
17	— iopfatal
18	— iop1fatal
19	— feaioprm
20	— seaioprm

e = If field *d i 1* is 4 or 7, then this field contains a four-digit (hexadecimal) error code. Error codes are defined in IOP Appendix F, IOP-APPF.

If field *d* is 8, then this field contains a four-digit (hexadecimal) code of 2400. This indicates that the PC community is powered down.

If field *d* is a, 10 - 13, or 15, then this field contains a one- or two-digit (hexadecimal) fault code. Fault codes are defined in IOP Appendix E, IOP-APPE.

SEE PROPRIETARY NOTICE ON COVER PAGE

If field *d* is 16, then this field contains a single-digit panic code. Panic codes are defined as follows:

1 - Encountered a fault while handling a fault.

2 - Excessive S/W faults.

3 - Excessive unrecoverable errors while processing a fault.

4 - Excessive unrecoverable errors while processing a fault where the IOPs were affected but not implicated.

If field *d* is 17 - 20, this field contains a two-digit (hexadecimal) code that represents the function within a major step. This is the same code that would be found in digits 4 and 5 of the PRM, function within a major step (also known as PRM number), had the PRM been issued. The meanings of these codes can be found in the *Process Recovery Messages Guide* by finding the IOP Driver PRM (digit 1 is a 7) with the indicated function-within-a-major-step, and reading the PRM description.

f = Additional error code for debugging in hex.

g = Additional error code for debugging in hex.

4. ACTION TO BE TAKEN

An error report is indicative of an error condition which could result in the removal of a unit. Units that are removed should be repaired and restored to service.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 585.

Output Appendixes
IOP-APPE
IOP-APPF

Input Messages
CLR:IODRV
DGN:IOP
RMV:IOP
RST:IOP

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
DGN-IOP
RCVRY-IOP
REPT-RCRY,IOP
RMV-IOP
RST-IOP
```

Practice 254-341-105 *Input/Output Software Structures Software Subsystem Description Lucent Technologies 3B20D Computer*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-IODRV,ERROR
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . VAR

1. FORMAT

```
REPT IODRV ERROR a [b]
```

2. REASON FOR OUTPUT

To report an input/output processor (IOP) related software error.

3. VARIABLE FIELD DEFINITIONS

a = Location code in hexadecimal indicating the fault source. Refer to IOP Appendix F, IOP-APPF for more information.

b = Character string giving more information about the error. Refer to IOP Appendix F, IOP-APPF for more explanation.

4. ACTION TO BE TAKEN

An error report is indicative of an error condition which could result in the removal of a unit. Units that are removed should be repaired and restored to service.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Output Appendixes
- IOP-APPF
- OMDB-REF-APP

Input Messages
- CLR:IODRV
- DGN:IOP
- RMV:IOP
- RST:IOP

Output Messages
- DGN-IOP
- RCVRY-IOP
- REPT-RCVRY,IOP
- RMV-IOP
- RST-IOP

SEE PROPRIETARY NOTICE ON COVER PAGE

Practice 254-341-105 *Input/Output Software Structures Software Subsystem Description Lucent Technologies 3B20D Computer*

ID . . . . . REPT-IODRV,FAULT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT IODRV FAULT CODE a [b] [VIRTUAL ADDRESS c]
```

2. REASON FOR OUTPUT

To report an input/output processor (IOP)-related software error.

3. VARIABLE FIELD DEFINITIONS

a = Input/output driver (IODRV) fault code. See IOP Appendix E, IOP-APPE.

b = Sequence number for stack back trace of d5 fault code (bad OST). The most recent function called will be listed first.

c = Virtual address within IODRV where fault occurred, if IODRV was running at the time. If this message is a d5 fault stack back trace, the address is the program address from the stack.

4. ACTION TO BE TAKEN

An error report is indicative of an error condition which could result in the removal of a unit. Units that are removed should be repaired and restored to service.

5. ALARMS

None.

6. REFERENCES

OMDB Key
This message has an OMDB key of 155.

Output Appendixes
IOP-APPE
OMDB-REF-APP

Input Messages
CLR:IODRV
DGN:IOP
RMV:IOP
RST:IOP

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
DGN-IOP
RCVRY-IOP
REPT-RCVRY,IOP
RMV-IOP
RST-IOP
```

Practice 254-341-105 *Input/Output Software Structures Software Subsystem Description Lucent Technologies 3B20D Computer*

ID . . . . . REPT-IOP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has ten formats.

[1] `REPT IOP` *a* `ERROR` *b* [*q*]

[2] `REPT IOP` *a* `ERROR` *b* `COMPL CODE` *c*

[3] `REPT IOP` *a* `ERROR` *b* `CHAN STATUS` *d*

[4] `REPT IOP` *a* `ERROR` *b* `BIC STATUS` *e*

[5] `REPT IOP` *a* `ERROR` *b* `DBS STATUS` *f*

[6] `REPT IOP` *a* `NOT EQUIPPED` *g h* `SLOT` *i*

[7] `REPT IOP` *a* `PC COMMUNITY` *j* `POWER REMOVED`

[8] `REPT IOP` *a* `UNIDENTIFIED RESPONSE  WD1=`*k* `WD2=`*l*

[9] `REPT IOP` *a* `CODE VERSION` *m*

[10] `REPT IOP` *a* `MEM ALLOC` *n* `MEM USED` *p*

2. REASON FOR OUTPUT

To report an input/output processor (IOP)-related software or hardware error, or the occurrence of an abnormal IOP-related event.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies the point within the input/output driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. See IOP Appendix F, `IOP-APPF`.

c = Hardware error type, in hexadecimal notation. See IOP Appendix A, `IOP-APPA`.

d = Returned channel status, in hexadecimal notation. See IOP Appendix B, `IOP-APPB`.

e = Returned bus interface controller (BIC) status, in hexadecimal notation. See IOP Appendix C, `IOP-APPC`.

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f = Returned duplex bus selector (DBS) status, in hexadecimal notation. See IOP Appendix D, `IOP-APPD`.

g = Unit name of missing PC.

h = Member number of missing PC.

i = Pack position of missing PC (0-15).

j = Identifies PC community that is powered down (0-3).

k = First word of an unidentifiable completion report.

l = Second word of an unidentifiable completion report.

m = Version number of code that exists in the device.

n = Number of bytes received.

p = Number of bytes requested.

q = Character string giving more information about the error.

4. ACTION TO BE TAKEN

With the exception of Formats 6 and 7, the error messages indicate error conditions that could cause the removal of a unit. Any removed unit should be repaired and restored to service. Formats 6 and 7 indicate improper manual operations.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Formats 1,2,6, and 7 have an OMDB key of 208.
Formats 3,4, and 5 have an OMDB key of 224.
Format 8 has an OMDB key of 228.
Format 9 has an OMDB key of 226.

Output Appendixes
`IOP-APPA`
`IOP-APPB`
`IOP-APPC`
`IOP-APPD`
`IOP-APPF`

Input Messages
`CLR:IODRV`
`DGN:IOP`
`RMV:IOP`
`RST:IOP`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
`RCVRY-IOP`
`REPT-RCVRY,IOP` (UNIX® RTR R6 and later)

Practice 254-301-105 *Input/Output Processor Description and Theory of Operation 3B Processor*

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

Practice 254-301-800 *Emergency Action Facilities Description 3B20D Model 1 Computer*

ID . . . . . REPT-IORMVRST
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT IORMVRST ERROR` *a b*

2. REASON FOR OUTPUT

To report an error condition in the `IORMVRST` user process.

3. VARIABLE FIELD DEFINITIONS

a = Function call failure type:

`1` - Message enable.
`2` - Receive wait.
`3` - Send to port.

b = Error code returned by the failing function call.

4. ACTION TO BE TAKEN

An operating system function call is failing; seek technical assistance to clear the trouble.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key
There is an OMDB key of 58.

Input Messages
`RMV:DUI`
`RMV:DUIC`
`RMV:IOP`
`RMV:MT`
`RMV:MTC`
`RMV:MTTY`
`RMV:MTTYC`
`RMV:SDL`
`RMV:SDLC`
`RMV:TTY`
`RMV:TTYC`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

RST-DUI
RST-DUIC
RST-IOP
RST-MT
RST-MTC
RST-MTTY
RST-MTTYC
RST-SDL
RST-SDLC
RST-TTY
RST-TTYC

ID . . . . . REPT-KAUDPRC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT KAUDPRC FAULT CODE` *a* [`AUDIT` *b c*]

2. REASON FOR OUTPUT

To report that the kernel audit process was faulted.

3. VARIABLE FIELD DEFINITIONS

a = Fault code, in hexadecimal notation.

b = Name of audit running when fault occurred, if an audit was running.

`MMGR` — Memory manager audits.

c = Audit member. One of the following:

`1` — Segment descriptor table (SDT) audit.
`2` — Page table (PGT) audit.
`3` — Page descriptor table (PDT) audit.
`4` — Segment release audit.
`5` — Segment unlock audit.

`MSGBUF` — Message buffer audits.

c = Audit member. One of the following:

`1` — Message queue audit.
`2` — Message extender audit.

`PROAD` — Process administration audits.

c = Audit member. Is the following:

`1` — Process creation and termination audits.

4. ACTION TO BE TAKEN

Report the occurrence of the message if an audit is identified in the message.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 332.

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-KLLA
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has 14 formats.

[1] `REPT KLLA TASK STATUS - `*a*`, PID=`*b*` TYPE=`*c*` ADDR=`*d*

[2] `REPT KLLA NON-TASK FAULT `*e*` ADDR `*f*

[3] `REPT KLLA STOP AND FLUSH IN PROGRESS FOR `*g*

[4] `REPT KLLA RECOVERY FAILED, RELEASED DATABASE `*g*

[5] `REPT KLLA NO PROCESS ATTACHED, RELEASE DATABASE `*g*

[6] `REPT KLLA {ADD|GROW|FREE} SEGMENT ERROR = `*h*` INDEX = `*j*

[7] `REPT KLLA UNSHARE SEGMENT FAILED INDEX = `*j*

[8] `REPT KLLA MEMORY LOCK CLEARED`

[9] `REPT KLLA LOCK CLEARED ON `*g*

[10] `REPT KLLA BAD MESSAGE QUEUE REPAIRED FOR `*g*

[11] `REPT KLLA UPDATE MAP OVERLOAD FOR `*g*

[12] `REPT KLLA FILENAME TOO LONG `*k*

[13] `REPT KLLA LLA ERROR CODES `*m*

[14] `REPT KLLA LLA DATA SEGMENT ERROR`

2. REASON FOR OUTPUT

To report status or error conditions in the process `/prc/klla`.

Format 1 - Report that a task was faulted or timed out.

Format 2 - Report that `/prc/klla` faulted while not in a task.

Format 3 - Report that a database is in a stop and flush mode. Output approximately every five minutes while the stop and flush is in effect.

Format 4 - Report that an attempt to recover from a fault has failed and that the database is being related.

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Format 5 - Report that no living process remains attached to a database and therefore the database is being released.

Format 6 - Report an error in adding or freeing dynamic memory.

Format 7 - Report that a shared segment cannot by unshared.

Format 8 - Report that a memory lock that was stuck has been cleared.

Format 9 - Report that a lock on a database that was stuck has been cleared.

Format 10 - Report that bad links were found in the message queue for a database and the queue has been repaired.

Format 11 - Report that the capacity of the update map for a database has been exceeded.

Format 12 - Reports an attempt to build a database file name that would contain more than fourteen characters.

Format 13 - Report internal LLA errors.

Format 14 - Reports internal KLLA error in administering the LLA library data segment associated with a task.

3. VARIABLE FIELD DEFINITIONS

a = Reason for terminating the task, PHASE 1, FAULT or TIMEOUT.

b = Process number of the process requesting the task.

c = Type of request being serviced.

d = If *a* is PHASE 1 or FAULT, the address at which the task was faulted with the fault code in the first two hex digits. If a is TIMEOUT, the task sleep address.

e = Fault code.

f = Address in /prc/klla at which fault occurred.

g = Name of the database.

h = Error code returned by the memory manager.

j = Segment index of the affected segment.

k = Name of the file.

m = A string of mnemonic LLA error codes separated by comas.

4. ACTION TO BE TAKEN

Formats 1 and 2 are for RTR developers. Frequent appearance of these messages should be reported to UNIX® RTR support.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 3 is for information only; no action is necessary.

Formats 4 and 5 indicate further KLLA access to that database will be denied until a new attach request is made. No action is necessary.

Format 6 means the following messages indicate a failure to allocate memory for the database environment because of a shortage of memory resources:

```
REPT KLLA ADD SEGMENT ERROR = X'ef
REPT KLLA ADD SEGMENT ERROR = X'ed
REPT KLLA GROW SEGMENT ERROR = X'fb
```

Retry the attach request when the memory shortage is cleared.

Any other SEGMENT ERROR message is an indication of a failure in KLLA's management of dynamic memory. Report this error to UNIX® RTR support.

Format 7 is a failure in KLLA's management of shared memory. Report this error to UNIX® RTR support.

Formats 8, 9, and 10 report errors found and repaired by internal audits of KLLA's structures. They are useful for explaining a possible slowdown or deadlock in KLLA processing. Frequent appearance of these messages should be reported to UNIX® RTR support.

Format 11 warns that the capacity of the updated map structure has been exceeded. If this error occurs frequently, pass this information to the UNIX® RTR support organization.

Format 13 contains useful debugging information for UNIX® RTR developers.

Format 14 reports a failure to set up the proper addressing for a task. The task involved will eventually be torn down with a timeout. Frequent appearance of this message should be reported to UNIX® RTR support.

5. ALARMS

None.

6. REFERENCES

None.

ID . . . . . REPT-LIBC,ARGU
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

REPT LIBC ARGUMENTS TO FUNC *a* UTID: *b*
c

2. REASON FOR OUTPUT

To report arguments to the faulting function and to the function that called the faulting function.

3. VARIABLE FIELD DEFINITIONS

a = Address of the faulting instruction or the caller of the faulting function. This will identify the function to which these arguments refer.

b = Utility ID of the process that faulted.

c = List of arguments to the function (maximum of 14) from the stack.

4. ACTION TO BE TAKEN

This is a supplementary message to REPT-LIBC,FAULT. No separate action is required if actions are taken for REPT-LIBC,FAULT message.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 677.

Output Messages
REPT-LIBC,FL
REPT-LIBC,PROGRAM
REPT-LIBC,SAVE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-LIBC,ER-STRT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT LIBC ERROR START COULD NOT OPEN ROOT DIRECTORY
 ERRNO d PNAME:a PID:b UTID:c
```

2. REASON FOR OUTPUT

To report that a UNIX® process created by the process manager failed to open the root directory of the file system. This occurred during the initialization for the UNIX® process.

3. VARIABLE FIELD DEFINITIONS

a = Process name from the process control block (PCB).

b = Process number.

c = Utility ID.

d = System error code. See System Error Codes Appendix, SYSERR-APP.

4. ACTION TO BE TAKEN

File an operational trouble report accompanied by the output message.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 352.

Output Appendix
SYSERR-APP

ID . . . . . REPT-LIBC,EX
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has 18 formats.

[1] `REPT LIBC ERROR EXEC ADDSEG FAILED SEG`
`NUMBER` *e* `FNAME:`*d* `PNAME:`*a* `PID:`*b* `UTID:`*c*

[2] `REPT LIBC ERROR EXEC ALOCSEG FAILED`
`FNAME:`*d* `PNAME:`*a* `PID:`*b* `UTID:`*c*
`SIZE:`*f* `SNAME:` *g*

[3] `REPT LIBC ERROR EXEC CHANGE ATTRIB FAILED`
`FNAME:`*d* `PNAME:`*a* `PID:`*b* `UTID:`*c*
`ATTRIB:` [*stat*|*dyn*] `PRI:`*i* `TSLICE:`*j* `SHLIB:`*k l*

[4] `REPT LIBC ERROR EXEC SET CLASS FAILED CLASS` *m*
`FNAME:`*d* `PNAME:`*a* `PID:`*b* `UTID:`*c*

[5] `REPT LIBC ERROR EXEC CHGPCB FAILED PCB SIZE` *r*
`FNAME:`*d* `PNAME:`*a* `PID:`*b* `UTID:`*c*

[6] `REPT LIBC ERROR EXEC BAD LIB HEAD DATA`
`LIBNAME:`*n* `FILEMAGIC:`*s* `AOUTMAGIV:`*t* `SEGMAPS:`*u*
`FNAME:`*d* `PNAME:`*a* `PID:`*b* `UTID:`*c*

[7] `REPT LIBC ERROR EXEC LIB HEAD READ FAILED`
`ERRNO` *o* `LIBNAME:`*n* `FNAME:`*d* `PNAME:`*a* `PID:`*b*
`UTID:`*c*

[8] `REPT LIBC ERROR LIB HEAD OPEN FAILED`
`ERRNO` *o* `LIBNAME:`*n* `FNAME:`*d* `PNAME:`*a*
`PID:`*b* `UTID:`*c*

[9] `REPT LIBC ERROR EXEC BAD SHLIB PATH DATA IN`
`PFILE HPATH` *p* `NAME:`*d* `PNAME:`*a* `PID:`*b* `UTID:`*c*

[10] `REPT LIBC ERROR EXEC UNAVAILABLE LIB SEGCODE`
`ERRNO` *o* `LIBNAME:`*n* `FNAME:`*d* `PNAME:`*a* `PID:`*b* `UTID:`*c*

[11] `REPT LIBC ERROR EXEC BAD SEG INDEX`
`FNAME:`*d* `PNAME:`*a* `PID:`*b* `UTID:`*c*
`INDEX:`*v* `SEGDESC:`*q*

SEE PROPRIETARY NOTICE ON COVER PAGE

[12] `REPT LIBC ERROR EXEC SEGMENT OVERLAY`
`FNAME:`*d* `PNAME:`*a* `PID:`*b* `UTID:`*c*
`INDEX:`*v* `SEGDESC:`*q*

[13] `REPT LIBC ERROR EXEC BAD PCB INDEX`
`FNAME:`*d* `PNAME:`*a* `PID:`*b* `UTID:`*c*
`INDEX:`*v* `SEGDESC:`*q*

[14] `REPT LIBC ERROR EXEC SEG READ FAILED ERRNO` *o*
`FNAME:`*d* `PNAME:`*a* `PID:`*b* `UTID:`*c*

[15] `REPT LIBC ERROR EXEC NO AVAILABLE SEG NUMBER`
`FNAME:`*d* `PNAME:`*a* `PID:`*b* `UTID:`*c*

[16] `REPT LIBC ERROR EXEC BAD STACK INDEX`
`FNAME:`*d* `PNAME:`*a* `PID:`*b* `UTID:`*c*
`INDEX:`*v* `SEGDESC:`*q*

[17] `REPT LIBC ERROR EXEV ADDSEG FAILED FOR TEMP`
`SEGMENT FNAME:`*d* `PNAME:`*a* `PID:`*b* `UTID:`*c*

[18] `REPT LIBC ERROR EXEV ALOCSEG FAILED FOR TEMP`
`SEGMENT FNAME:`*d* `PNAME:`*a* `PID:`*b* `UTID:`*c*

2. REASON FOR OUTPUT

To report that a UNIX® process was overlaying itself with another image and an unexpected error occurred.

Format 1 is printed when a new segment could not be added to the address space.

Format 2 is printed when a new segment could not be allocated.

Format 3 is printed when the process attributes could not be changed.

Format 4 is printed when the process class could not be set.

Format 5 is printed when `chgpcb` failed when setting the profiling address. For UNIX® RTR R6 and later, `MAXSEG` error occurs when the `chgpcb ost` fails to change the segment list size when executing a child with a different number of segments than the parent. `PCBSIZE` error occurs when the pcb could not be grown or shrunk for the new process identified in `FNAME`.

Format 6 is printed when a shared library file header contained bad data.

Format 7 is printed when a shared library file could not be read.

Format 8 is printed when a shared library file could not be opened.

Format 9 is printed when the new process image's file contained invalid shared library data.

Format 10 is printed when a segment name template could not be obtained for a shared library file.

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Format 11 is printed when a segment index in the file header was invalid.

Format 12 is printed when a segment overlay in the process being executed.

Format 13 is printed when the PCB data in the file header was invalid.

Format 14 is printed when a segment image could not be read from a file.

Format 15 is printed when a segment number for a new segment could not be found.

Format 16 is printed when the stack data in the file header was invalid.

Format 17 is printed when a temporary segment could not be added to the address space.

Format 18 is printed when a temporary segment could not be allocated.

3. VARIABLE FIELD DEFINITIONS

a = Process name from the process control block (PCB). For some cases, this may be NULL.

b = Process number.

c = Utility ID.

d = Name of the file in which the error happened. In some cases, the name will have the utility ID as a prefix.

e = Segment number of the one that could not be attached.

f = Size of the requested segment.

g = Name of the requested segment.

h = Static or dynamic priority indicator.

i = Priority requested.

j = Time slice requested.

k = Shared library bits.

l = Shared library bits.

m = Class requested.

n = Name of the shared library.

o = System error code. See System Error Codes Output Appendix, SYSERR-APP.

p = Invalid path data.

q = File's invalid segment descriptor.

r = Profiling address, or the new segment list size, of the new PCB size.

s = Magic number in file header.

t = Magic number in a.out header.

u = Number of segment maps.

SEE PROPRIETARY NOTICE ON COVER PAGE

v = Segment index of bad segment in pfile.

4. ACTION TO BE TAKEN

File an operational trouble report accompanied by the message. Many conditions indicate a file whose data have been damaged.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 346.
Format 2 has an OMDB key of 345.
Formats 3 and 5 have an OMDB key of 342.
Format 4 has an OMDB key of 341.
Format 6 has an OMDB key of 349.
Formats 7, 8, and 10 have an OMDB key of 348.
Format 9 has an OMDB key of 339.
Formats 11, 12, 13, and 16 have an OMDB key of 343.
Format 14 has an OMDB key of 347.
Formats 15, 17, and 18 have an OMDB key of 344.

Output Appendix
SYSERR-APP

ID . . . . . REPT-LIBC,FL-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT LIBC FAULT IN a FLTCODE b PA c
  PNAME:d PID:e UTID:f
```

2. REASON FOR OUTPUT

To report that a UNIX® process caused a software fault that made it terminate.

3. VARIABLE FIELD DEFINITIONS

a = A general indicator of what caused the fault:

`LIB` - The UNIX® portion of the library.

`USER` - The process itself.

b = Fault number. See Fault Code Appendix, `FAULT-CODE-APP`.

c = Program address at which the fault occurred. In some cases, this value may point to the next instruction.

d = Process name from the process control block (PCB).

e = Process number.

f = Utility ID.

4. ACTION TO BE TAKEN

File an operational trouble report accompanied by the output message. In some cases, a file is created in `/cdmp` that contains an image of the process when it terminates. The file's name will be the same as variable field *d* in the output message.

If variable fields *a* = `USER` and *b* = `0xe1` (`H'e1`), a phase 1 has occurred, and the currently running supervisor or UNIX® process (indicated by variable field *d*) is killed by sending it a phase fault (`0xe1`). This is part of the phase 1 recovery process, and the process is reporting that it has received a fault. The postmortem should be analyzed to determine the cause of the phase 1. If bit 31 of the process status word (PSW) in the postmortem is `0xa1` and the process indicated in variable field *d* was dumped into `/cdmp`, then save the core dump for analysis.

5. ALARMS

None. This automatically-generated report is for information only.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Key
This message has an OMDB key of 338.

Output Appendix
FAULT-CODE-APP

ID . . . . . REPT-LIBC,FL-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT LIBC FAULT IN a FLTCODE b PA c
  PNAME:d PID:e UTID:f
```

2. REASON FOR OUTPUT

To report that a UNIX® process caused a software fault that made it terminate.

3. VARIABLE FIELD DEFINITIONS

a = A general indicator of what caused the fault:

- `LIB` - The UNIX® portion of the library.
- `USER` - The process itself.
- `SBTRACE` - The stack back trace execution.

b = Fault number. See LIBC Fault Number Appendix, `LIBC-FAULT-NUM-APP`.

c = Program address at which the fault occurred. In some cases, this value may point to the next instruction.

d = Process name from the process control block (PCB).

e = Process number.

f = Utility ID of the process that faulted.

4. ACTION TO BE TAKEN

File an operational trouble report accompanied by `REPT-LIBC,FAULT`, `REPT-LIBC,PROGRAM`, `REPT-LIBC,SAVE`, and `REPT-LIBC,ARGU` output messages. In some cases, a file is created in /cdmp that contains an image of the process when it terminates. The file's name will be the same as variable field *d* in the output message.

If variable fields *a* = `USER` and *b* = `0xe1` (`H'e1`), a phase 1 has occurred, and the currently running supervisor or UNIX® process (indicated by variable field *d*) is killed by sending it a phase fault (`0xe1`). This is part of the phase 1 recovery process, and the process is reporting that it has received a fault. The postmortem should be analyzed to determine the cause of the phase 1. If bit 31 of the process status word (PSW) in the postmortem is `0xa1` and the process indicated in variable field *d* was dumped into `/cdmp`, then save the core dump for analysis.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 338.

Output Appendix
`LIBC-FAULT-NUM-APP`

Output Messages
`REPT-LIBC,PROGRAM`
`REPT-LIBC,SAVE`
`REPT-LIBC,ARGU`

ID . . . . . REPT-LIBC,FO
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has five formats.

[1] `REPT LIBC ERROR FORK COPYSEG FAILED RET` *d*
`PNAME:`*a* `PID:`*b* `UTID:`*c*

[2] `REPT LIBC ERROR FORK ADDSEG FAILED FOR PCB`
`PNAME:`*a* `PID:`*b* `UTID:`*c*

[3] `REPT LIBC ERROR FORK COPYSEG FAILED FOR PCB`
`RET` *d* `PNAME:`*a* `PID:`*b* `UTID:`*c*

[4] `REPT LIBC ERROR FORK PFORK1 FAILED`
`PNAME:`*a* `PID:`*b* `UTID:`*c*

[5] `REPT LIBC ERROR FORK PFORK2 FAILED`
`PNAME:`*a* `PID:`*b* `UTID:`*c*

2. REASON FOR OUTPUT

To report that an error prevented a UNIX® process from creating a new process with the fork system call.

Format 1 is printed when the process could not duplicate all segments of its address space.

Format 2 is printed when the process could not add the new process control block (PCB) segment to its address space.

Format 3 is printed when the process could not create a copy of its PCB segment.

Formats 4 and 5 are printed if the new process could not be created because of other system limitations. This condition may be temporary.

3. VARIABLE FIELD DEFINITIONS

a = Process name from the PCB.

b = Process number.

c = Utility ID.

d = Return value from an unsuccessful request.

4. ACTION TO BE TAKEN

If the condition persists, file an operational trouble report accompanied with the output message.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Formats 1 and 3 have an OMDB key of 350.
Formats 2, 4, and 5 have an OMDB key of 351.

ID . . . . . REPT-LIBC,PROGRAM
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT LIBC PROGRAM ADDRESS BACKTRACE UTID: a
b
```

2. REASON FOR OUTPUT

To report the function addresses of the faulting process.

3. VARIABLE FIELD DEFINITIONS

a = Utility ID of the process that faulted.

b = List of program addresses on the stack (maximum of 15) when the fault occurred, listed in the order of latest to first.

4. ACTION TO BE TAKEN

This is a supplementary message to REPT-LIBC,FAULT. No separate action is required if actions are taken for REPT-LIBC,FAULT message.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 675.

Output Messages
REPT-LIBC,FL
REPT-LIBC,SAVE
REPT-LIBC,ARGU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-LIBC,SAVE
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT LIBC SAVE STATE REGISTERS UTID: a
0-5: b c d e f g
6-B: h i j k l m
```

2. REASON FOR OUTPUT

To report save-state registers (0 through 12) for the faulting process.

3. VARIABLE FIELD DEFINITIONS

a = Utility ID of the process that faulted.

b-g = Save state registers R0, R1, R2, R3, R4, R5, respectively.

h-m = Save state registers R6, R7, R8, R9, R10, R11, respectively.

4. ACTION TO BE TAKEN

This is a supplementary message to REPT-LIBC,FAULT. No separate action is required if actions are taken for REPT-LIBC,FAULT message.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 676.

Output Messages
REPT-LIBC,FL
REPT-LIBC,PROGRAM
REPT-LIBC,ARGU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-LIBC,START
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT LIBC` *a b c* `START / d`

2. REASON FOR OUTPUT

To report that a UNIX® process created by the process manager failed to open the root directory of the file system. This occurred during the initialization for the UNIX® process.

3. VARIABLE FIELD DEFINITIONS

a = Process name from the process control block (PCB).

b = Process number.

c = Utility ID.

d = System error code. See System Error Codes Appendix, `SYSERR-APP`.

4. ACTION TO BE TAKEN

File an operational trouble report accompanied by the output message.

5. ALARMS

None.

6. REFERENCES

Output Appendix
`SYSERR-APP`

ID . . . . . REPT-MAINT,REQ
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . SIM

1. FORMAT

```
REPT MAINTENANCE REQUESTS LOST
```

2. REASON FOR OUTPUT

To report that messages to the maintenance input request administrator (MIRA) were discarded by the system integrity monitor (SIM) in an effort to recover from message buffer overload.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Expect that requests to remove, diagnose, or restore a unit will not be run. Use the `OP:DGN` input message to determine which requests were lost, and then reenter those requests.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 449.

Input Messages

```
DGN:MTTYC
DGN:TTYC
DGN:CU
DGN:MT
DGN:DUIC
DGN:MTC
DGN:MHD
DGN:SDLC
DGN:DFC
DGN:SCSDC
DGN:HSDC
RMV:SBUS
RMV:MTTYC
RMV:TTYC
RMV:CU
```

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```
RMV:MT
RMV:DUI
RMV:SCC
RMV:IOP
RMV:MTTY
RMV:DUIC
RMV:MTC
RMV:MHD
RMV:SDLC
RMV:ROP
RMV:SDL
RMV:HSD
RMV:TTY
RMV:DFC
RMV:SCSDC
RMV:HSDC
RST:SBUS
RST:MTTYC
RST:TTYC
RST:CU
RST:MT
RST:DUI
RST:SCC
RST:IOP
RST:MTTY
RST:DUIC
RST:MTC
RST:MHD
RST:SDLC
RST:ROP
RST:SDL
RST:HSD
RST:TTY
RST:DFC
RST:SCSDC
RST:HSDC
```

Output Messages

```
PRM-0
REPT-SIMCHK
```

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-MAPFILE
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT MAPFILE.P NOT ACCESSIBLE
```

2. REASON FOR OUTPUT

To report that the coordinator of spooler output processes (CSOP) is not able to access the spooler mapfile.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Check that `/cft/spl/mapfile.p` has read / write file permissions.

5. ALARMS

None.

6. REFERENCES

Input Messages

```
ALW:F;ACCESS
OP:ST;LSTDIR
```

Output Messages

```
ALW-F,ACCESS
OP-ST,LSTDIR
```

ID . . . . . REPT-MAXINTVL
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT MAXINTVL` *a*

2. REASON FOR OUTPUT

To report the utility id of a process which requested a time-out exceeding the maximum allowable value.

3. VARIABLE FIELD DEFINITIONS

a = Utility id of process requesting time-out.

4. ACTION TO BE TAKEN

The timeout request, by default, will succeed unless failure is requested via the `(s)maxintvl` call. The process may use the `(s)maxintvl` call to eliminate the message.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an MDB key of 333.

ID . . . . . REPT-MBD
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT MBD  DATA 1-1`
`00000000`

[2] `REPT MBD  DATA` *a-b*
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA

2. REASON FOR OUTPUT

To print system message buffer data when the disk driver message buffer contains invalid data.

Format 1 prints when the disk driver message buffer pointer is NULL.

Format 2 prints when a critical field in the disk driver message buffer is considered to be invalid.

The message buffer dump (MBD) will always contain the disk driver message buffer that is considered invalid. If it exists, message buffer data preceding the disk driver message buffer will also be printed.

The maximum amount of data printed is the size of the largest message buffer plus the size of the smallest message buffer followed by the disk driver message buffer. The boundaries between message buffers contained in the dump are determined by interpreting the data.

3. VARIABLE FIELD DEFINITIONS

a = Current print segment number.

b = Total number of print segments in this report.

A = Message buffer data in hexadecimal notation.

4. ACTION TO BE TAKEN

Save a copy of the receive-only printer (ROP) and contact your technical support organization.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

None.

ID . . . . . REPT-MEMORY,PRTY
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MEMF

1. FORMAT

```
REPT MEMORY PARITY FAILURE  X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e
MAIN STORE CONTROLLER 0
TRAPPED ADDRESS REGISTER:  hhhhhhhh
ERROR REGISTER 1:  iiiiiiii
ERROR REGISTER 2:  jjjjjjjj
MAIN STORE CONTROLLER 1 (MAY NOT BE CONFIGURED)
TRAPPED ADDRESS REGISTER: kkkkkkkk
ERROR REGISTER 1:  llllllll
ERROR REGISTER 2:  mmmmmmmm
ERROR DATA:  nnnnnnnn
PHYSICAL MEMORY ADDRESS:  oooooooo
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

A correctable memory failure occurred in the online processor (my store D).

3. VARIABLE FIELD DEFINITIONS

a = Sequence hexadecimal number associating this report with previous `REPT-CU` (see its parameter *d*).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

h = If bit 27 of the Main store controller 0 trapped address register (TAR0) is set, TAR0 contains the address where the fault occurred (in hexadecimal).

i = The contents of the main store controller (MASC) 0 error register 1 (ER01) (in hexadecimal). See the *System Maintenance Manual*, Appendix F.

j = The contents of the MASC 0 error register 2 (ER02) (in hexadecimal). See the *System Maintenance Manual*, Appendix F.

k = The contents of the MASC 1 trapped address register (TAR1) (in hexadecimal).

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l = The contents of the MASC 1 error register 1 (ER11) (in hexadecimal). See the *System Maintenance Manual*, Appendix F.

m = The contents of the MASC 1 error register 2 (ER12) (in hexadecimal). See the *System Maintenance Manual*, Appendix F.

n = Error data (in hexadecimal).

o = Physical memory address (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time the error interrupt.

4. ACTION TO BE TAKEN

If the processor encountering the fault is out of service, run diagnostics on it.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Output Messages

`DGN-CU`
`REPT-CU`

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-MHD-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKSYS

1. FORMAT

This message has ten formats.

[1] `REPT MHD` *a* `ERROR COMPL CODE` *b* `MHD STATUS` *c*

[2] `REPT MHD` *a* `ERROR MHD STATUS` *c*

[3] `REPT MHD` *a* `ERROR CHAN STATUS` *d*

[4] `REPT MHD` *a* `ERROR DBS STATUS` *e*

[5] `REPT MHD` *a* `ERROR BIC STATUS` *f*

[6] `REPT MHD` *a* `ERROR STATUS` *g* `MASK` *h* `EXP` *i*

[7] `REPT MHD` *a* `ERROR DATA` *j*

[8] `REPT MHD` *a* `FAULT CODE` *k*

[9] `REPT MHD` *a* `UNIDENTIFIED RESPONSE WD1=`*l* `WD2=`*m*

[10] `REPT MHD` *a* `AUTONOMOUS RESPONSE` *n*

2. REASON FOR OUTPUT

To specify the error condition detected on the moving head disk (MHD).

3. VARIABLE FIELD DEFINITIONS

a = Unit number.

b = Command completion status word in hexadecimal notation. The completion word is eight hexadecimal digits of the form: *rrsstuvv*.

rr = Command completion code. See Tables 1 and 2 in DFC Appendix B, `DFC-APPB`.

ss = Number of disk blocks read or written.

t = Device ID number.

u = Special completion code; valid only when *vv* is 00. See Table 3 in DFC Appendix B, `DFC-APPB`.

vv = DMA job number (job id).

c = MHD Status, in hexadecimal notation. See DFC Appendix C, DFC-APPC.

d = Channel status, in hexadecimal notation. See DFC Appendix D, DFC-APPD.

e = Bus selector status, in hexadecimal notation. See DFC Appendix E, DFC-APPE.

f = BIC status, in hexadecimal notation. See DFC Appendix F, DFC-APPF.

g = BIC status, in hexadecimal notation. See DFC Appendix F, DFC-APPF.

h = Mask.

i = Expected value of *g* after being masked with *h*.

j = Supplemental data for previous REPT-DKDRV message.

k = Fault code, in hexadecimal notation. See DFC Appendix I, DFC-APPI.

l = First word of an unidentifiable completion report. This would normally be the command completion word.

m = Second word of an unidentifiable completion report. This would normally be the MHD status word.

n = Autonomous response special completion code (eight hexadecimal digits). The explanation of the hexadecimal digits is the same as the command completion code described above for variable *b*. The *u* hexadecimal digit provides the reason for the autonomous response. See Table 3 in DFC Appendix B, DFC-APPB.

4. ACTION TO BE TAKEN

An error report indicates an error condition which could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages may be output which provide useful data.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 232 and 244.
Formats 2, 3, 4, and 5 have an OMDB key of 233.
Format 6 has an OMDB key of 236.
Format 7 has an OMDB key of 231.
Format 8 has an OMDB key of 234.
Format 9 has an OMDB key of 235.
Format 10 has OMDB keys of 237, 238, and 239.

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Output Appendixes
- DFC-APPB
- DFC-APPC
- DFC-APPD
- DFC-APPE
- DFC-APPF
- DFC-APPI

Input Messages
- DGN:MHD
- RMV:MHD
- RST:MHD

Output Messages
- DGN-MHD
- REPT-DKDRV
- RMV-MHD
- RST-MHD

Practice 254-301-210 *Moving Head Disk Drive General Description 3B20D Processor*

ID . . . . . REPT-MHD-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKSYS

1. FORMAT

This message has 12 formats.

[1] `REPT MHD` *a* `ERROR COMPLETION CODE` *b* `MHD STATUS` *c*

[2] `REPT MHD` *a* `ERROR MHD STATUS` *c*

[3] `REPT MHD` *a* `ERROR CHAN STATUS` *d*

[4] `REPT MHD` *a* `ERROR DBS STATUS` *e*

[5] `REPT MHD` *a* `ERROR BIC REGISTER STATUS` *f*

[6] `REPT MHD` *a* `ERROR STATUS` *g* `MASK` *h* `EXP` *i*

[7] `REPT MHD` *a* `ERROR DATA` *j*

[8] `REPT MHD` *a* `FAULT CODE` *k*

[9] `REPT MHD` *a* `UNIDENTIFIED RESPONSE WD1=`*l* `WD2=`*m*

[10] `REPT MHD` *a* `AUTONOMOUS RESPONSE` *n*

[11] `REPT MHD` *a* `INFO HA SHADOW REGISTER STATUS` *o*

[12] `REPT MHD` *a* `INFO CODE` *p*

2. REASON FOR OUTPUT

To specify the error condition detected on the moving head disk (MHD).

3. VARIABLE FIELD DEFINITIONS

a = Unit number.

b = Command completion status word in hexadecimal notation. The completion word is eight hexadecimal digits of the form: *rrsstuvv*.

rr = Command completion code. See Tables 1 and 2 in DFC Appendix B, `DFC-APPB`.

ss = Number of disk blocks read or written.

t = Device ID number.

u = Special completion code; valid only when *vv* is 00. See Table 3 in DFC Appendix B, `DFC-APPB`.

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vv = DMA job number (job ID).

c = MHD Status, in hexadecimal notation. See DFC Appendix C, DFC-APPC.

d = Channel status, in hexadecimal notation. See DFC Appendix D, DFC-APPD.

e = Bus selector status, in hexadecimal notation. See DFC Appendix E, DFC-APPE.

f = BIC status, in hexadecimal notation. See DFC Appendix F, DFC-APPF.

g = BIC status, in hexadecimal notation. See DFC Appendix F, DFC-APPE.

h = Mask.

i = Expected value of *g* after being masked with *h*.

j = Supplemental data for previous REPT-DKDRV message.

k = Fault code, in hexadecimal notation. See DFC Appendix I, DFC-APPI.

l = First word of an unidentifiable completion report. This would normally be the command completion word.

m = Second word of an unidentifiable completion report. This would normally be the MHD status word.

n = Autonomous response special completion code (eight hexadecimal digits). The explanation of the hexadecimal digits is the same as the command completion code described above for variable *b*. The *u* hexadecimal digit provides the reason for the autonomous response. See Table 3 in DFC Appendix B, DFC-APPB.

o = The SCSI HA shadow register status, in hexadecimal notation. See DFC Appendixes N and K, DFC-APPN, DFC-APPK.

p = Information code. See DFC Appendix A, DFC-APPA.

4. ACTION TO BE TAKEN

An error report indicates an error condition which could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages may be output which provide useful data.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 232 and 244.
Formats 2,3,4, and 5 have an OMDB key of 233.
Format 6 has an OMDB key of 236.
Format 7 has an OMDB key of 231.
Format 8 has an OMDB key of 234.
Format 9 has an OMDB key of 235.
Format 10 has OMDB keys of 237, 238, and 239.
Format 11 has an OMDB key of 200.
Format 12 has an OMDB key of 199.

Output Appendixes

DFC-APPA
DFC-APPB
DFC-APPC
DFC-APPD
DFC-APPE
DFC-APPF
DFC-APPI
DFC-APPK
DFC-APPN

Input Messages

DGN:MHD
RMV:MHD
RST:MHD

Output Messages

DGN-MHD
REPT-DKDRV
RMV-MHD
RST-MHD

Practice 254-301-215 *Disk File Controller Description and Theory of Operation 3B20D Model 1 Computer*

Practice 254-301-216 *CSI Disk File Controller Description and Theory of Operation*

ID . . . . . REPT-MHD-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKSYS

1. FORMAT

This message has 13 formats.

[1] `REPT MHD` *a* `ERROR COMPLETION CODE` *b* `DEVICE STATUS` *c*

[2] `REPT MHD` *a* `ERROR DEVICE STATUS` *c*

[3] `REPT MHD` *a* `ERROR CHAN STATUS` *d*

[4] `REPT MHD` *a* `ERROR DBS STATUS` *e*

[5] `REPT MHD` *a* `ERROR BIC REGISTER STATUS` *f*

[6] `REPT MHD` *a* `ERROR STATUS` *g* `MASK` *h* `EXP` *i*

[7] `REPT MHD` *a* `ERROR DATA` *j*

[8] `REPT MHD` *a* `FAULT CODE` *k*

[9] `REPT MHD` *a* `UNIDENTIFIED RESPONSE WD1=`*l* `WD2=`*m*

[10] `REPT MHD` *a* `AUTONOMOUS RESPONSE` *n*

[11] `REPT MHD` *a* `INFO HA SHADOW REGISTER STATUS` *o*

[12] `REPT MHD` *a* `INFO CODE` *p*

[13] `REPT MHD` *a* `SJR DATA` *q r s t u*

2. REASON FOR OUTPUT

To specify the error condition detected on the moving head disk (MHD).

Format 13 provides small computer system interface (SCSI) job response (SJR) information when an explicit SCSI command, built by the disk file controller (DFC). driver, fails. The SJR data is necessary to determine the exact cause of the error condition.

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3. VARIABLE FIELD DEFINITIONS

a = Unit number.

b = Command completion status word in hexadecimal notation. The completion word is eight hexadecimal digits of the form: `rrsstuvv`.

`rr` = Command completion code. See Tables 1 and 2 in DFC Output Appendix B, `DFC-APPB`.

`ss` = Number of disk blocks read or written.

`t` = Device ID number.

`u` = Special completion code; valid only when `vv` is 00. See Table 3 in DFC Output Appendix B, `DFC-APPB`.

`vv` = DMA job number (job ID).

c = Device status, in hexadecimal notation. See DFC Output Appendix C, `DFC-APPC`.

d = Channel status, in hexadecimal notation. See DFC Output Appendix D, `DFC-APPD`.

e = Bus selector status, in hexadecimal notation. See DFC Output Appendix E, `DFC-APPE`.

f = BIC status, in hexadecimal notation. See DFC Output Appendix F, `DFC-APPF`.

g = BIC status, in hexadecimal notation. See DFC Output Appendix F, `DFC-APPF`.

h = Mask.

i = Expected value of *g* after being masked with *h*.

j = Supplemental data for previous `REPT-DKDRV` message.

k = Fault code, in hexadecimal notation. See DFC Output Appendix I, `DFC-APPI`.

l = First word of an unidentifiable completion report. This would normally be the command completion word.

m = Second word of an unidentifiable completion report. This would normally be the device status word.

n = Autonomous response special completion code (eight hexadecimal digits). The explanation of the hexadecimal digits is the same as the command completion code described above for variable *b*. The *u* hexadecimal digit provides the reason for the autonomous response. See Table 3 in DFC Output Appendix B, `DFC-APPB`.

o = The SCSI host adapter (HA) shadow register status, in hexadecimal notation. See DFC Output Appendix P, `DFC-APPP`.

p = Information code. See DFC Output Appendix A, `DFC-APPA`.

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q = Command completion word. The command completion word is eight hexadecimal digits of the form AAAABBCC.

AAAA = SCSI job block (SJB) completion code. See "Job completion code" under "General Job Information" in DFC Output Appendix K, DFC-APPK.

BB = Status byte. See "Target SCSI status byte" under "SCSI Command Information" in DFC Output Appendix K, DFC-APPK.

CC = Fill. Not used.

r = First word of extended sense data (ESD). See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 0 of ESD.

BB = Byte 1 of ESD.

CC = Byte 2 of ESD.

DD = Byte 3 of ESD.

s = Second word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 4 of ESD.

BB = Byte 5 of ESD.

CC = Byte 6 of ESD.

DD = Byte 7 of ESD.

t = Third word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 8 of ESD.

BB = Byte 9 of ESD.

CC = Byte 10 of ESD.

DD = Byte 11 of ESD.

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u = Fourth word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 12 of ESD.

BB = Byte 13 of ESD.

CC = Byte 14 of ESD.

DD = Byte 15 of ESD.

4. ACTION TO BE TAKEN

An error report indicates an error condition which could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages may be output which provide useful data.

If Format 13 prints, the SCSI drive encountered an internal drive error. Retain a copy of the error data, then contact the next level of technical support to aid in determining the cause of the error condition.

5. ALARMS

There is no alarm for an automatically-generated report that is for information only.

If a minor alarm occurs, take action as indicated in the report.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 232 and 244.
Formats 2,3,4, and 5 have an OMDB key of 233.
Format 6 has an OMDB key of 236.
Format 7 has an OMDB key of 231.
Format 8 has an OMDB key of 234.
Format 9 has an OMDB key of 235.
Format 10 has OMDB keys of 237, 238, and 239.
Format 11 has an OMDB key of 200.
Format 12 has an OMDB key of 199.
Format 13 does not use OMDB.

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Output Appendixes
- DFC-APPA
- DFC-APPB
- DFC-APPC
- DFC-APPD
- DFC-APPE
- DFC-APPF
- DFC-APPI
- DFC-APPJ
- DFC-APPK
- DFC-APPP

Input Messages
- DGN:MHD
- RMV:MHD
- RST:MHD

Output Messages
- DGN-MHD
- RMV-MHD
- RST-MHD

Practice 254-301-215 *Disk File Controller Description and Theory of Operation 3B20D Model 1 Computer*

Practice 254-301-216 *CSI Disk File Controller Description and Theory of Operation*

ID . . . . . REPT-MIRA
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has 21 formats.

[1] `REPT MIRA QUEUE FULL - RETRY LATER`

[2] `REPT MIRA ERROR` *a c d* [*e f*] `RETRY FAILED`

[3] `REPT MIRA FAILED TO  CHANGE PRIORITY ERRNO =` *b*

[4] `REPT MIRA ECD OPEN FAILED ERRNO =` *b*

[5] `REPT MIRA ECDMAN FAILED TO GET TOP UCB RECORD ERRNO =` *b*

[6] `REPT MIRA NO UCB FOR EQUIPMENT ID =` *c d* [*e f*]

[7] `REPT MIRA CANNOT LCALL` *g*

[8] `REPT MIRA NOTHING TO STOP NO UNITS QUEUED`

[9] `REPT MIRA CANNOT RECEIVE MESSAGE`

[10] `REPT MIRA UNIDENTIFIABLE MESSAGE RECEIVED`

[11] `REPT MIRA NULL MESSAGE RECEIVED`

[12] `REPT MIRA CANNOT SEND MESSAGE TO` *g* `ERRNO =` *b*

[13] `REPT MIRA PORT CONNECTION FAILURE`

[14] `REPT MIRA INVALID UNIT ID IN DIAGNOSTIC ABORT REQUEST`
c d [*e f*]

[15] `REPT MIRA INVALID MESSAGE COMMAND RECEIVED`

[16] `REPT MIRA` *a c d* [*e f*] `ABORT REQUESTED REASON` *h*

[17] `REPT MIRA DIAGNOSTICS ARE NOT IN THE SUSPENDED STATE`

[18] `REPT MIRA ILLEGAL REQUEST FOR` *c d* [*e f*]

[19] `REPT MIRA NO UNITS QUEUED OF THAT TYPE`

[20] `REPT MIRA INVALID UNIT ID IN INTERACTIVE REQUEST EX` *a c d* [*e f*]

[21] `REPT MIRA CANNOT RESERVE UNITS FOR` *a c d* [*e f*]

2. REASON FOR OUTPUT

To report one of the following conditions encountered by the maintenance input request administrator (MIRA).

Format 1 indicates that all slots in the MIRA queue are taken.

Formats 2 and 21 indicate that the unit control block (UCB) for the unit is reserved.

Format 3 indicates that MIRA could not change to a different UNIX® priority.

Format 4 indicates that MIRA could not to open the equipment configuration database (ECD) manager.

Format 5 indicates that the ECD manager failed to locate the top UCB for the request.

Format 6 indicates that the UCB for the requested unit was not found by the ECD manager.

Format 7 indicates that MIRA could not create a child process.

Format 8 indicates that a `STOP` command has been received but there are no units queued.

Format 9 indicates that MIRA could not enable message reception.

Format 10 indicates that the message tag is invalid.

Format 11 indicates that an error in the message reception occurred.

Format 12 indicates that MIRA could not send a message to a process.

Format 13 indicates that MIRA could not connect to port 2.

Format 14 indicates that the UCB for the unit ID in a diagnostic abort was not found by the ECD manager.

Format 15 indicates that MIRA could not execute the command in a message.

Format 16 indicates that an abort of an active diagnostic has been initiated by MIRA.

Format 17 indicates that the input message `ALW:DMQ;RUN` was entered while normal execution of diagnostics was allowed.

Format 18 indicates that the unit cannot be diagnosed or restored because it is a software device.

Format 19 indicates that there is no unit queued of the type requested in the `STOP` message.

Format 20 indicates that the UCB for the unit ID in the `EX` request was not matched, no action was taken.

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3. VARIABLE FIELD DEFINITIONS

a = Type of input request.

b = System error number. See System Error Codes Appendix, `SYSERR-APP`.

c = Unit name.

d = Unit number.

e = Subunit name.

f = Subunit number.

g = Name of process in directory `/diag/dgnc`.

h = Reason code for the diagnostic abort:

`0` - `STOP:DMQ` or `STP:DMQ` command entered.
`1` - Abort request received from the DMERT fault recovery process.
`2` - Software diagnostic abort request was received.
`3` - Operating system signal received by MIRA.
`4` - Timeout message received from diagnostic timer (dgntimer) process.

4. ACTION TO BE TAKEN

For Format 1, wait until a slot is available (see `OP:DMQ` input message) or remove a request from the queue. See `STOP:DMQ` or `STP:DMQ` input message. If problem persists, seek technical assistance.

For Formats 2 and 21, one of the following actions should be taken in the order given. If the problem persists, do the next action on the list.

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Step	Procedure
1	Wait until the UCB is no longer reserved. The unit specified in the diagnostic request may be in use by another process. Both `INIT:MHD` (initialize moving head disk) and `UPD:GEN` (generic update) reserve units. Verify that these processes are not active. Retry the maintenance request.
2	Enter `RMV:unit a!` where unit is the unit name and a is the unit number from the original maintenance request. Retry the maintenance request.
3	Enter `AUD:ECDOWN 1!` to run the ECD audit. Retry the maintenance request.
4	Enter: `OP:STATUS:PROCESS,ALL!` Record the identifications for all processes named "ppdiamon," "cudiagc," "iodiag," and "dfdiag." Enter `STOP:EXC:ANY,PID a!` to kill these processes. Enter `AUD:ECDOWN 1!` to run the ECD audit. Try the maintenance request again.
5	Repeat Step 4 using the following commands: Enter: `STOP:EXC;USER,PID a,SIG 9!`, This generates a kill that cannot be caught or ignored. Use of this command will result in the need to reinitialize ularp. `INIT:ULARP` will restart all monitored processes.
6	If problems persist, seek technical assistance.

For Format 3, MIRA can change its priority if it is spawned with a command line parameter of *prty=x*, where -39≤x≤39. MIRA's priority then becomes default priority minus *6x*. When *x* is negative, the priority increases. When *x* is positive, the priority decreases. In no case will MIRA's priority rise above 191 or go below zero. MIRA's command line can be found in the file /etc/ularpfile. The typical error causing this output will be an out-of-range command line *prty* value.

For Format 4, verify that the file /dev/ecd exists and the access permissions are correct.

For Formats 5 and 6, verify that a valid unit name was entered on the input request. Examine the UCB of the unit requested for correctness, using the recent change and verify command RCV:M;BROWSE.

For Format 7, verify that process *g* exists in the directory /diag/dgnc and is executable. This failure also occurs if insufficient swap space exists.

For Format 8, 12, 14, 16, 17, 18, and 20, no action is required.

For Formats 9 and 13, no action is required. MIRA will terminate and be restarted by ULARP.

For Formats 10, 11, 15, and 19, if a manual input command preceded this message, retry the input command.

5. ALARMS

This alarm is either a manually-requested report or is automatically-generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
Formats 1, 8 through 11, 13, 15, 17, and 19 have an OMDB key of 59.
Format 2 and 21 have an OMDB key of 60.
Formats 3, 4, and 5 have an OMDB key of 72.
Formats 6, 14, 18, and 20 have an OMDB key of 73.
Format 7 has an OMDB key of 68.
Format 12 has an OMDB key of 69.
Format 16 has an OMDB key of 86.

Output Appendix
SYSERR-APP

Input Messages
ALW:DMQ;RUN
DGN:CU
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:MHD
DGN:MTC

```
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
EX:CU
EX:DFC
EX:DUIC
EX:HSDC
EX:IOP
EX:LDPARM
EX:LOOP
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE
EX:SCSDC
EX:SDLC
EX:STEP
EX:STOP
EX:TTYC
INIT:MHD
OP:DMQ
OP:ST;PROC
RCV:M;BROWSE
RMV:CU
RMV:DFC
RMV:DUI
RMV:DUIC
RMV:HSD
RMV:HSDC
RMV:IOP
RMV:MHD
RMV:MT
RMV:MTC
RMV:MTTY
RMV:MTTYC
RMV:ROP
RMV:SBUS
RMV:SCC
RMV:SCSDC
RMV:SDL
RMV:SDLC
RMV:TTY
RMV:TTYC
RST:CU
RST:DFC
RST:DUI
RST:DUIC
RST:HSD
RST:HSDC
```

RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC
STOP:DMQ
STP:DMQ

Output Messages

DGN-AUDIT
DGN-CU
DGN-CU-MASC
DGN-DFC
DGN-DUIC
DGN-HSDC
DGN-INHIBIT
DGN-IOP
DGN-MHD
DGN-MTC
DGN-MTTYC
DGN-SCSDC
DGN-SDLC
DGN-TTYC
EX-CU
EX-DFC
EX-DUIC
EX-HSDC
EX-IOP
EX-LDPARM
EX-LOOP
EX-MHD
EX-MTC
EX-MTTYC
EX-PAUSE
EX-SCSDC
EX-SDLC
EX-STEP
EX-TTYC
OP-DMQ
OP-ST,PROC
RMV-CU

SEE PROPRIETARY NOTICE ON COVER PAGE

```
RMV-DFC
RMV-DUI
RMV-DUIC
RMV-HSD
RMV-HSDC
RMV-IOP
RMV-MHD
RMV-MT
RMV-MTC
RMV-MTTY
RMV-MTTYC
RMV-ROP
RMV-SBUS
RMV-SCC
RMV-SCSDC
RMV-SDL
RMV-SDLC
RMV-TTY
RMV-TTYC
RST-CU
RST-DFC
RST-DUI
RST-DUIC
RST-HSD
RST-HSDC
RST-IOP
RST-MHD
RST-MT
RST-MTC
RST-MTTY
RST-MTTYC
RST-ROP
RST-SBUS
RST-SCC
RST-SCSDC
RST-SDL
RST-SDLC
RST-TTY
RST-TTYC
```

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-MKDSK
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1]
```
REPT MKDSK PLEASE MOUNT NEXT TAPE IN SEQUENCE
REMEMBER TO PLACE TAPE DRIVE ONLINE
TO RESTART TYPE MKSTART
```

[2]
```
REPT MKDSK STILL WAITING FOR NEXT TAPE IN SEQUENCE
REMEMBER TO PLACE TAPE DRIVE ONLINE
TO RESTART TYPE MKSTART
```

2. REASON FOR OUTPUT

Format 1 is output when another tape should be mounted when multiple tapes are being read.

Format 2 reports that mkdsk has not terminated, and the next tape should be mounted.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Mount the next tape in the sequence. If the user waits more than five minutes to mount the next tape, the process will terminate and must be restarted.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 604.

Input Message
```
EXC:ENVIR;UPROC
```

SEE PROPRIETARY NOTICE ON COVER PAGE

ID REPT-MMGR001
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT MMGR001 BAD DKDRV STAT` *a*

2. REASON FOR OUTPUT

To report that the memory manager has received an acknowledgement message with an invalid response field from the disk driver. Legal responses are: success, failure, retry or bad message. The memory manager, not sure of how to proceed, will retry the input/output request.

3. VARIABLE FIELD DEFINITIONS

a = Offending status code, in decimal notation.

4. ACTION TO BE TAKEN

There is apparently a software coding error. Unless the condition causing the unusual return clears spontaneously, recovery in the field is remote. Submit an operational trouble report accompanied by the printout of this message.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 328.

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID REPT-MMGR002
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT MMGR002 EXCESSIVE RETRIES FOR I/O SWAP
  SEGID a RETRIED b TIMES
```

2. REASON FOR OUTPUT

To report that the disk driver has returned a message status of 'retry' an unexpectedly large number of times. This message is repeated every 20 times a retry message is received until the Input/Output request is satisfied.

3. VARIABLE FIELD DEFINITIONS

a = Segment ID of the segment being swapped. (This might be useful in debugging.)

b = Number of times this was retried.

4. ACTION TO BE TAKEN

There is trouble in the disk driver. The swapping function of memory management is probably not working while this condition continues. Diagnose the moving head disk.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 329.

Input Messages
DGN:MHD
RMV:MHD
RST:MHD

Output Messages
DGN-MHD
RMV-MHD
RST-MHD

Practice 254-301-210 *Moving Head Disk Drive General Description 3B20D Processor*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID REPT-MMGR003-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT MMGR003 ADD MEMORY FAILED  AVAIL MEM a PAGES
ATTEMPTED TO ATTACH b PAGES
[MUST REGEN SYSTEM TO ADD MORE MEMORY |
 EXTENDED MEMORY NOT ENABLED.  AVAIL MEM AT MAX. ]
```

2. REASON FOR OUTPUT

Reports that a request to make some added memory available for system use failed. Recent change / verify had requested that the memory manager make some added memory available for system use.

3. VARIABLE FIELD DEFINITIONS

a = Amount of usable memory, in pages. One page = 2048 bytes.

b = Number of pages that recent change / verify attempted to make available for system use.

4. ACTION TO BE TAKEN

If recent change / verify attempts to increase the memory size beyond the maximum memory size specified during system generation, (variable *a* should equal the system generation specified maximum memory size), then the memory manager will attempt to add *a* pages. To increase this size, the system must be `resysgened`, and the computer rebooted to use the additional memory. However, if this is not desirable, then the system can be left to run with the original amount of memory.

If recent change / verify attempts to add memory beyond the physical size of memory (*b* is greater than 32768 pages), the attempt will fail. This indicates a faulty recent change / verify request.

If *b* is less than or equal to *a*, then a request was made to add memory with the memory size being equal to the old size or smaller. This could be caused by an error when entering recent change / verify commands.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 330.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Message

```
UPD:BLDBOOT
```

ID REPT-MMGR003-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT MMGR003 ADD [EXTENDED] MEMORY FAILED. AVAILABLE MEMORY = a PAGES
ATTEMPTED TO GROW MEMORY TO b PAGES
[MUST REGEN SYSTEM TO ADD MEMORY]
```

2. REASON FOR OUTPUT

To report that a request to make some added memory available for system use failed. Recent change / verify had requested that the memory manager make some added memory available for system use.

3. VARIABLE FIELD DEFINITIONS

a = Amount of usable memory, in pages. One page = 2048 bytes.

b = Number of pages that recent change / verify attempted to make available for system use.

4. ACTION TO BE TAKEN

If recent change / verify attempts to increase the memory size beyond the maximum memory size specified during system generation, the memory manager will attempt to grow memory to *a* pages (variable *a* should equal the system generation specified maximum memory size). To increase this size, the system must be resysgened, and the computer rebooted to use the additional memory. However, if this is not desirable, then the system can be left to run with the original amount of memory.

If recent change / verify attempts to add memory beyond the physical size of memory the attempt will fail. For VLMM the physical size of memory is 32768 pages; for EMM it is 16384; otherwise, it is 8192. Variable *b* is greater than 32768 pages, and indicates a faulty recent change / verify request.

If *b* is less than or equal to *a*, then a request was made to add memory with the memory size being equal to the old size or smaller. This could be caused by an error when entering recent change / verify commands.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
The OMDB key for this message is 330.

Input Message

```
UPD:BLDBOOT
```

ID REPT-MMGR004
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT MMGR004 SWAP SPACE REQUEST FAILED
  AVAIL BLKS = b REQUESTED BLKS = a
```

2. REASON FOR OUTPUT

Swap disk space is allocated to new segments as they are created, and each segment must get contiguous blocks on the disk. This raises the possibility of fragmentation. That is, there might be enough free space for any given segment, but no single set of contiguous free blocks is large enough by itself. Instead of denying a space request immediately, the Memory Manager will attempt to re-arrange the disk space of existing segments. This can be done reasonably cheaply for all segments that happen to be in main memory at the time.

This message is produced when such a compaction has been done. However, the request that triggered the compaction could NOT be satisfied, even after the compaction.

3. VARIABLE FIELD DEFINITIONS

a = The size, in 512-byte disk blocks, of the failing request.

b = The size, in 512-byte disk blocks, of the largest free contiguous extent ("hole") after compaction.

4. ACTION TO BE TAKEN

If this message occurs, a request for swap space has been denied. This implies that some process was unable to function properly. Possible urgent action to be taken includes:

1. Request a more effective but more expensive compaction using the `AUD:MMGR` input message. This may be postponed until a time when the load is lighter.
2. If the message persists, more disk space may be required. This entails a regeneration of the system, and a re-boot.

NOTE: The automatic compaction will not be attempted, and this message will not appear, if the system is in a state of absolute swap disk overload (output message `REPT-SIMCHK 602 A6` has appeared).

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 331.

Input Messages
AUD:MMGR
UPD:BLDBOOT

Output Message
REPT-SIMCHK

ID REPT-MMGR005
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RPT MMGR005 AVAILABLE [EXTENDED] MEMORY NOW` *a* `PAGES`

2. REASON FOR OUTPUT

To report that real memory was added to the system via recent change/verify. The memory manager has made this memory available.

3. VARIABLE FIELD DEFINITIONS

a = New size of usable memory, in pages. One page equals 2048 bytes.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 674.

ID . . . . . REPT-MOP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT MOP CANNOT UNMOUNT DEVICE` *a* `ERROR =` *b*

2. REASON FOR OUTPUT

To report that the process mop is unable to unmount the off-line partition mounted as device *a* due to error *b*.

3. VARIABLE FIELD DEFINITIONS

a = Name of device.

b = Error code:
See System Error Codes Output Appendix, `SYSERR-APP`.

4. ACTION TO BE TAKEN

If mop is unable to unmount device *a* because a file on the device is open (busy), close the file and mop will unmount device *a* approximately two minutes after most recent `REPT` time.

If mop is unable to unmount the device due to an input/output error, kill the current mop process before executing a format [2] mop message as documented in *3B20D Computer Commands*.

5. ALARMS

Major alarm. May not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Key
This message had an OMDB key of 542.

Output Appendix
`SYSERR-APP`

Input Messages
`CMPR:D;CORE`
`VFY:FILE`

ID . . . . . REPT-MT-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT MT a {ERROR b [COMPLETED CODE c] |
   UNIDENTIFIED RESPONSE WD1=d WD2=e}
```

2. REASON FOR OUTPUT

To report a magnetic-tape (MT) related software or hardware error.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies point within the input/output driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. See output IOP Appendix F, `IOP-APPF`.

c = Hardware error type, in hexadecimal notation. See output IOP Appendix A, `IOP-APPA`.

d = First word of an unidentifiable completion report.

e = Second word of an unidentifiable completion report.

4. ACTION TO BE TAKEN

These error messages indicate error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

5. ALARMS

None.

6. REFERENCES

OMDB Key
This message has an OMDB key of 208.

Output Appendixes
`IOP-APPA`
`IOP-APPF`

Input Messages
`CLR:IODRV`
`DGN:MT`
`RMV:MT`
`RST:MT`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
RCVRY-IOP
RCVRY-MT
RCVRY-MTC
REPT-IOP
REPT-RCVRY,IOP
REPT-RCVRY,MT
REPT-RCVRY,MTC
```

Practice 254-301-220 *Magnetic Tape System General Description 3B20D Model 1 Processor*

ID . . . . . REPT-MT-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has 15 formats.

[1] `REPT MT` *a* `ERROR` *b*

[2] `REPT MT` *a* `ERROR` *b* `COMPLETED CODE` *c*

[3] `REPT MT` *a* `UNIDENTIFIED RESPONSE WD1=`*d* `WD2=`*e*

[4] `REPT MT` *a* `ERROR COMPLETION CODE` *f* `DEVICE STATUS` *g*

[5] `REPT MT` *a* `ERROR DEVICE STATUS` *g*

[6] `REPT MT` *a* `ERROR CHAN STATUS` *h*

[7] `REPT MT` *a* `ERROR DBS STATUS` *i*

[8] `REPT MT` *a* `ERROR BIC REGISTER STATUS` *j*

[9] `REPT MT` *a* `ERROR STATUS` *k* `MASK` *l* `EXP` *m*

[10] `REPT MT` *a* `ERROR DATA` *n*

[11] `REPT MT` *a* `FAULT CODE` *o*

[12] `REPT MT` *a* `AUTONOMOUS RESPONSE` *p*

[13] `REPT MT` *a* `INFO HA SHADOW REGISTER STATUS` *q*

[14] `REPT MT` *a* `INFO CODE` *r*

[15] `REPT MT` *a* `SJR DATA` *s t u v w*

2. REASON FOR OUTPUT

To report a magnetic-tape (MT) related software or hardware error.

Format 15 provides small computer system interface (SCSI) job response (SJR) information when an explicit SCSI command, built by the disk file controller (DFC). driver, fails. The SJR data is necessary to determine the exact cause of the error condition.

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Formats 1 and 2 are output exclusively by the input output processor (IOP) tape device driver. Format 3 is common and may be output by both the drivers. Formats 4 through 15 are output exclusively by the SCSI DFC driver.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies point within the input/output driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. See IOP Output Appendix F, `IOP-APPF`.

c = Hardware error type, in hexadecimal notation. See IOP Output Appendix A, `IOP-APPA`.

d = First word of an unidentifiable completion report.

e = Second word of an unidentifiable completion report.

f = Command completion status word. The completion word is eight hexadecimal digits of the form: `rrsstuvv`.

- `rr` = Command completion code. See Tables 1 and 2 in DFC Output Appendix B, `DFC-APPB`.
- `ss` = Number of blocks read or written.
- `t` = Device ID number.
- `u` = Special completion code; valid only when `vv` is 00. See Table 3 in DFC Output Appendix B, `DFC-APPB`.
- `vv` = DMA job number (job ID).

g = Device status, in hexadecimal notation. See DFC Output Appendix C, `DFC-APPC`.

h = Channel status, in hexadecimal notation. See DFC Output Appendix D, `DFC-APPD`.

i = Bus selector status, in hexadecimal notation. See DFC Output Appendix E, `DFC-APPE`.

j = BIC status, in hexadecimal notation. See DFC Output Appendix F, `DFC-APPF`.

k = BIC status, in hexadecimal notation. See DFC Output Appendix F, `DFC-APPF`.

l = Mask.

m = Expected value of *k* after being masked with *l*.

n = Supplemental data for the previous `REPT-DKDRV` message.

o = Fault code, in hexadecimal notation. See DFC Output Appendix I, `DFC-APPI`.

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p = Autonomous response special completion code (eight hexadecimal digits). The explanation of the hexadecimal digits is the same as the command completion code described for variable *f*. The *u* hexadecimal digit provides the reason for the autonomous response. See Table 3 in DFC Output Appendix B, DFC-APPB.

q = The SCSI host adapter (HA) shadow register status, in hexadecimal notation. See DFC Output Appendix P, DFC-APPP.

r = Information code. See DFC Output Appendix A, DFC-APPA.

s = Command completion word. The command completion word is eight hexadecimal digits of the form AAAABBCC.

- AAAA = SCSI job block (SJB) completion code. See "Job completion code" under "General Job Information" in DFC Output Appendix K, DFC-APPK.
- BB = Status byte. See "Target SCSI status byte" under "SCSI Command Information" in DFC Output Appendix K, DFC-APPK.
- CC = Fill. Not used.

t = First word of extended sense data (ESD). See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

- AA = Byte 0 of ESD.
- BB = Byte 1 of ESD.
- CC = Byte 2 of ESD.
- DD = Byte 3 of ESD.

u = Second word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

- AA = Byte 4 of ESD.
- BB = Byte 5 of ESD.
- CC = Byte 6 of ESD.
- DD = Byte 7 of ESD.

v = Third word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

- AA = Byte 8 of ESD.
- BB = Byte 9 of ESD.
- CC = Byte 10 of ESD.
- DD = Byte 11 of ESD.

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w = Fourth word of ESD. See DFC Output Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 12 of ESD.

BB = Byte 13 of ESD.

CC = Byte 14 of ESD.

DD = Byte 15 of ESD.

4. ACTION TO BE TAKEN

These error messages indicate error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

If Format 15 prints, the SCSI drive encountered an internal drive error. Retain a copy of the error data, then contact the next level of technical support to aid in determining the cause of the error condition.

5. ALARMS

There is no alarm for an automatically-generated report that is for information only.

If a minor alarm occurs, take action as indicated in the report.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys

Formats 1 and 2 have an OMDB key of 208.
Format 3 has OMDB keys of 208 and 235.
Format 4 has OMDB keys of 232 and 244.
Formats 5, 6, 7, and 8 have an OMDB key of 233.
Format 9 has an OMDB key of 236.
Format 10 has an OMDB key of 231.
Format 11 has an OMDB key of 234.
Format 12 has OMDB keys of 237, 238, and 239.
Format 13 has an OMDB key of 200.
Format 14 has an OMDB key of 199.
Format 15 does not use OMDB.

Output Appendixes

DFC-APPA
DFC-APPB
DFC-APPC
DFC-APPD
DFC-APPE
DFC-APPF
DFC-APPI

DFC-APPJ
DFC-APPK
DFC-APPP
IOP-APPA
IOP-APPF

Input-Messages
CLR:IODRV
DGN:MT
RMV:MT
RST:MT

Output Messages
RCVRY-IOP
RCVRY-MT
RCVRY-MTC
REPT-IOP
REPT-RCVRY,IOP
REPT-RCVRY,MT
REPT-RCVRY,MTC

Practice 254-301-220 *Magnetic Tape System General Description 3B20D Model 1 Processor*

ID . . . . . REPT-MTC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT MTC` *a*{`ERROR` *b*[`COMPL CODE` *c*]|
`UNIDENTIFIED RESPONSE WD1=`*d* `WD2=`*e*}

[2] `REPT MTC` *a* `CODE VERSION X'`*f*

2. REASON FOR OUTPUT

Format 1 reports a magnetic-tape-controller (MTC) related software or hardware error.

Format 2 is output during the restoral of the unit.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies point within the input/output driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. See output IOP Appendix F, `IOP-APPF`.

c = Hardware error type, in hexadecimal notation. See output IOP Appendix A, `IOP-APPA`.

d = First word of an unidentifiable completion report.

e = Second word of an unidentifiable completion report.

f = Peripheral controller pump code version.

4. ACTION TO BE TAKEN

These error messages indicate error conditions that could cause the removal of a unit. Any removed unit must be repaired and restored to service. No action is necessary for the message in Format 2 unless the controller and/or its subdevices are not acting normally or could not be restored. Contact the service organization with the code version which was used.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 208.

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Format 2 has an OMDB key of 226.

Output Appendixes
```
IOP-APPA
IOP-APPF
```

Input Messages
```
CLR:IODRV
DGN:MTC
RMV:MTC
RST:MTC
```

Output Messages
```
RCVRY-IOP
RCVRY-MTC
REPT-IOP
REPT-RCVRY,IOP
REPT-RCVRY,MTC
```

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

Practice 254-301-220 *Magnetic Tape System General Description 3B20D Model 1 Processor*

ID . . . . . REPT-MTTY
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has three formats.

[1] `REPT MTTY` *a* {`ERROR` *b* [*c*] [`COMPLETED CODE` *d*] |
`UNIDENTIFIED RESPONSE WD1=`*e* `WD2=`*f*}

[2] `REPT MTTY` *a* `STARTED`

[3] `REPT MTTY` *a* `STOPPED`

2. REASON FOR OUTPUT

Format 1 reports a maintenance teletypewriter (MTTY) related software or hardware error.

Format 2 reports that the MTTY has changed state from STBY to ACT. An MTTY will change to ACT state when DTR is ON.

Format 3 reports that the MTTY has changed state from ACT to STBY. An MTTY will change to STBY state when DTR is OFF.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies, in hexadecimal notation, the point within the input/output driver (IODRV) where a software or hardware error was detected. See output IOP Appendix F, `IOP-APPF`.

c = Character string giving more information about the error identified in *b* above. Refer to IOP Appendix F, `IOP-APPF` for additional explanation.

d = Hardware error type, in hexadecimal notation. See output IOP Appendix A, `IOP-APPA`.

e = First word of an unidentified completion report.

f = Second word of an unidentified completion report.

4. ACTION TO BE TAKEN

Format 1 indicates error conditions that could cause the removal of a unit. Any removed unit must be repaired and then restored to service.

Formats 2 and 3 are informational messages and indicate that the MTTY has changed

states. These messages will be output when the currently active MTTY changes state to STBY, and the currently STBY MTTY changes state to ACT. An active MTTY will change state to STBY when powered off, and a standby MTTY will change state to ACT when powered up. No action is necessary.

5. ALARMS

Format 1 has no alarm. The automatically-generated report is for information only.

Formats 2 and 3 have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 208.
Formats 2 and 3 have an OMDB key of 308.

Output Appendixes
IOP-APPA
IOP-APPF

Input Messages
CLR:IODRV
DGN:MTTYC
RMV:MTTY
RST:MTTY
SW:PORTSW

Output Messages
RCVRY-IOP
RCVRY-MTTY
RCVRY-MTTYC
REPT-IOP
REPT-MTTYC
REPT-RCVRY,IOP
REPT-RCVRY,MTTY
REPT-RCVRY,MTTYC
SW-PORTSW

Practice 254-301-115 *Teletypewriter/Printer System Description Lucent Technologies 3B20D Computer*

ID . . . . . REPT-MTTYC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

[1] `REPT MTTYC` *a* {`ERROR` *b* [`COMPLETED CODE` *c*] |
`UNIDENTIFIED RESPONSE WD1=`*d* `WD2=`*e*}

[2] `REPT MTTYC` *a* `CODE VERSION X'`*f*

[3] `REPT MTTYC` *a* `FLASH RAM VERSION X'`*g*

2. REASON FOR OUTPUT

Format 1 reports a maintenance teletypewriter controller (MTTYC) related software or hardware error.

Format 2 is output during unit restoration.

Format 3 is requested by diagnostics and output prior to the update of flash RAM on the unit.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies the point, in hexadecimal notation, within input/output driver (IODRV) where a software or hardware error was detected. See output IOP Appendix F, `IOP-APPF`.

c = Hardware error type, in hexadecimal notation. See output IOP Appendix A, `IOP-APPF`.

d = First word of an unidentifiable completion report.

e = Second word of an unidentifiable completion report.

f = Peripheral controller pump code version number.

g = Peripheral controller flash RAM version number.

4. ACTION TO BE TAKEN

Format 1 is an error message that indicates error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

For Formats 2 and 3, no action is necessary unless the controller and/or its subdevices are not acting normal, or cannot be restored. Contact the service organization with the code version number and/or flash RAM version number that was used.

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5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key(s)
Format 1 has an OMDB key of 208.
Formats 2 and 3 have an OMDB key of 226.

Output Appendix(es)
`IOP-APPA`
`IOP-APPF`

Input Message(s)
`CLR:IODRV`
`DGN:MTTYC`
`RMV:MTTYC`
`RST:MTTYC`

Output-Message(s)
`RCVRY-IOP`
`RCVRY-MTTYC`
`REPT-IOP`
`REPT-RCVRY,IOP`
`REPT-RCVRY,MTTYC`

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-MY,STORE-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT MY STORE A DURING DMA X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e
DMA ADDRESS: ffffffff  DMA STATUS REGISTER:  gggggggg
DMA RAM:  hhhhhhhh  iiiiiiii  jjjjjjjj  kkkkkkkk
DMA STORE DATA REGISTER:  llllllll  DMA INCREMENTOR:  mmmmmmmm
DMA BUFFER REGISTER:  nnnnnnnn
o
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

Indicates the direct memory access (DMA) controller (DMAC) encountered a fatal main memory problem during DMA transfer. See the *System Maintenance Manual*, ERROR REGISTER DESCRIPTION section, Error Bit 6.)

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

f = Input/output address of the DMAC encountering the fault (in hexadecimal).

g = The contents of the DMA status register (in hexadecimal). See *System Maintenance Manual*, Appendixes C and D.

h = First word entry in the DMA RAM for the device that failed (in hexadecimal).

i = Second word entry in the DMA RAM for the device that failed (in hexadecimal).

j = Third word entry in the DMA RAM for the device that failed (in hexadecimal).

k = Fourth word entry in the DMA RAM for the device that failed (in hexadecimal).

l = Internal DMAC register contents (in hexadecimal).

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m = Internal DMAC register contents (in hexadecimal).

n = Internal DMAC register contents (in hexadecimal).

o = For Model 1:

`CHANNEL DATA REGISTER:` *xxxxxxxx*

For Model 2:

a blank line

x = Contents of the faulted channels data register (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Run diagnostics on the indicated unit.

5. ALARMS

None.

6. REFERENCES

Output Message
`DGN-UNIT`

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-MY,STORE-B
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT MY STORE B DURING DMA X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e
DMA ADDRESS: ffffffff  DMA STATUS REGISTER:  gggggggg
DMA RAM:  hhhhhhhh  iiiiiiii  jjjjjjjj  kkkkkkkk
DMA STORE DATA REGISTER:  llllllll  DMA INCREMENTOR:  mmmmmmmm
DMA BUFFER REGISTER:  nnnnnnnn
o
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

A process has attempted to access a location in memory that is not physically equipped. See *System Maintenance Manual*, ERROR REGISTER DESCRIPTION section, Error Bit 23.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

f = Input/output address of the direct memory access (DMA) controller (DMAC) encountering the fault (in hexadecimal).

g = The contents of the DMA status register (in hexadecimal). See the *System Maintenance Manual*, Appendixes C and D.

h = First word entry in the DMA RAM for the device that failed (in hexadecimal).

i = Second word entry in the DMA RAM for the device that failed (in hexadecimal).

j = Third word entry in the DMA RAM for the device that failed (in hexadecimal).

k = Fourth word entry in the DMA RAM for the device that failed (in hexadecimal).

l = Internal DMAC register contents (in hexadecimal).

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m = Internal DMAC register contents (in hexadecimal).

n = Internal DMAC register contents (in hexadecimal).

o = For Model 1:

`CHANNEL DATA REGISTER:` *xxxxxxxx*

For Model 2:

a blank line

x = Contents of the faulted channels data register (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Run diagnostics on the indicated unit.

5. ALARMS

None.

6. REFERENCES

Output Message
`DGN-UNIT`

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-MY,STORE-C
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MEMF

1. FORMAT

```
REPT MY STORE DURING DMA  X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e
DMA ADDRESS:  ffffffff  DMA STATUS REGISTER:  gggggggg
MAIN STORE CONTROLLER 0
TRAPPED ADDRESS REGISTER:  hhhhhhhh
ERROR REGISTER 1:  iiiiiiii
ERROR REGISTER 2:  jjjjjjjj
MAIN STORE CONTROLLER 1 (MAY NOT BE CONFIGURED)
TRAPPED ADDRESS REGISTER: kkkkkkkk
ERROR REGISTER 1:  llllllll
ERROR REGISTER 2:  mmmmmmmm
ERROR DATA:  nnnnnnnn
PHYSICAL MEMORY ADDRESS: oooooooo
p
REAL TIME CLOCK: rrrrrrrr
```

2. REASON FOR OUTPUT

A non-correctable parity error has occurred during a direct memory access (DMA) read of a memory location on the currently running control unit (CU).

3. VARIABLE FIELD DEFINITIONS

a = The sequence number, in hexadecimal, of the report.

b = Active CU number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

f = Input/output address, in hexadecimal, of the DMA controller (DMAC) encountering the fault.

g = The contents, in hexadecimal, of the DMA status register. See the *System Maintenance Manual*, Appendixes C and D.

h = If bit 27 of the main store controller 0 trapped address register (TAR0) is set, TAR0 contains the address, in hexadecimal, where the fault occurred.

i = The contents, in hexadecimal, of the main store controller 0 error register 1 (ER01). See the *System Maintenance Manual*, Appendix F.

SEE PROPRIETARY NOTICE ON COVER PAGE

j = The contents, in hexadecimal, of the main store controller 0 error register 2 (ER02). See the *System Maintenance Manual*, Appendix F.

k = The contents, in hexadecimal, of the main store controller 1 trapped address register (TAR1).

l = The contents, in hexadecimal, of the main store controller 1 error register 1 (ER11). See the *System Maintenance Manual*, Appendix F.

m = The contents, in hexadecimal, of the main store controller 1 error register 2 (ER12). See the *System Maintenance Manual*, Appendix F.

n = Error data (in hexadecimal).

o = Physical memory address (in hexadecimal).

p = For Model 1:

```
CHANNEL DATA REGISTER:    qqqqqqqq
```

For Model 2:

a blank line

q = The contents, in hexadecimal, of the faulted channels data register.

r = Value, in milliseconds and hexadecimal, of the real time clock (RTC) at the time of the error interrupt.

4. ACTION TO BE TAKEN

If the processors switched as a result of the error, run diagnostics on the processor encountering the fault.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Output Message
DGN-CU

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-NONCORR,PRTY
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MEMF

1. FORMAT

```
REPT NONCORRECTABLE PARITY ERROR ON MEMORY REFERENCE  X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e
MAIN STORE CONTROLLER 0
TRAPPED ADDRESS REGISTER:  hhhhhhhh
ERROR REGISTER 1:  iiiiiiii
ERROR REGISTER 2:  jjjjjjjj
MAIN STORE CONTROLLER 1 (MAY NOT BE CONFIGURED)
TRAPPED ADDRESS REGISTER: kkkkkkkk
ERROR REGISTER 1:  llllllll
ERROR REGISTER 2:  mmmmmmmm
ERROR DATA:  nnnnnnnn
PHYSICAL MEMORY ADDRESS:  oooooooo
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

To indicate noncorrectable memory parity failure in online control unit (CU).

3. VARIABLE FIELD DEFINITIONS

a = Sequence hexadecimal number associating this report with previous `REPT-CU` (see its parameter *d*).

b = Active CU number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

h = If bit 27 of the Main store controller (MASC) 0 trapped address register (TAR0) is set, TAR0 contains the address where the fault occurred (in hexadecimal).

i = The contents of the MASC 0 error register 1 (ER01) (in hexadecimal). See *System Maintenance Manual*, Appendix F.

j = The contents of the MASC 0 error register 2 (ER02) (in hexadecimal). See *System Maintenance Manual*, Appendix F.

k = The contents of the MASC 1 trapped address register (TAR1) (in hexadecimal).

l = The contents of the MASC 1 error register 1 (ER11) (in hexadecimal). See *System Maintenance Manual*, Appendix F.

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m = The contents of the MASC 1 error register 2 (ER12) (in hexadecimal). See *System Maintenance Manual*, Appendix F.

n = Error data (in hexadecimal).

o = Physical memory address (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Run diagnostics on the indicated unit.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Output Message
`DGN-UNIT`

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-OFFLINE-A
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 thru R21.33
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT OFFLINE BOOT IN PROGRESS`

[2] `REPT OFFLINE BOOT {ABORTED | STOPPED | TERMINATED}`

2. REASON FOR OUTPUT

These messages are output to report information about the execution of the offline boot feature.

Format 1 is printed every 5 minutes, after the off-line side has booted successfully, to indicate that the system is still in offline boot and therefore, is still logically split.

Format 2 is printed after the off-line side has booted successfully and offline boot is being stopped. Whether devices moved to the off-line side are restored or not depends on the abort type:

`ABORTED` — Application request to stop the oflboot procedure; devices moved to the off-line side will be restored.

`STOPPED` — Manual request to stop the oflboot procedure. If the RST option was specified, devices moved to the off-line side will be restored.

`TERMINATED` — UNIX® RTR software-initiated termination of the oflboot procedure; devices moved to the off-line side will not be restored.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. For a minor alarm, take action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 690.
Format 2 has an OMDB key of 690.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
EXC:OFLBOOT
STOP:OFLBOOT
SW:OFLBOOT
```

Output Messages

```
EXC-OFLBOOT
REPT-OFLBOOT
STOP-OFLBOOT
SW-OFLBOOT
```

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ID . . . . . REPT-OFFLINE-B
GENERIC . . . . . UNIX RTR R21.35 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT OFFLINE BOOT IN PROGRESS` *a*

[2] `REPT OFFLINE BOOT` {`ABORTED` | `STOPPED` | `TERMINATED`}

2. REASON FOR OUTPUT

These messages are output to report information about the execution of the offline boot feature.

Format 1 is printed every 5 minutes, after the off-line side has booted successfully, to indicate that the system is still in offline boot and therefore, is still logically split.

Format 2 is printed after the off-line side has booted successfully and offline boot is being stopped. Whether devices moved to the off-line side are restored or not depends on the abort type:

`ABORTED` — Application request to stop the oflboot procedure; devices moved to the off-line side will be restored.

`STOPPED` — Manual request to stop the oflboot procedure. If the RST option was specified, devices moved to the off-line side will be restored.

`TERMINATED` — UNIX® RTR software-initiated termination of the oflboot procedure; devices moved to the off-line side will not be restored.

3. VARIABLE FIELD DEFINITIONS

a = Offline side boot completion status. If this part of the message is not printed, a side-switch was performed and the initial offline side boot completion status is no longer valid. Otherwise, the following text will be printed, respectively, when the offline side boot completes without errors and with non-fatal errors:

```
- OFFLINE SIDE BOOT COMPLETED

- OFFLINE SIDE BOOT COMPLETED WITH ERRORS
```

4. ACTION TO BE TAKEN

For Format 1, in the case where non-fatal errors occurred, the ROP should be examined for additional messages associated with the offline boot. Any action to be taken is based on these messages.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. For a minor alarm, take action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 690.
Format 2 has an OMDB key of 690.

Input Messages
EXC:OFLBOOT
STOP:OFLBOOT
SW:OFLBOOT

Output Messages
EXC-OFLBOOT
REPT-OFLBOOT
STOP-OFLBOOT
SW-OFLBOOT

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-OFLBOOT
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has seven formats.

[1]
```
REPT OFLBOOT a
b
OLBSTATE        LASTATE        FUNCTION        LINE
c       d       e       f
```

[2]
```
REPT OFLBOOT a
b { g h | i | j | k | o | q | v | w }
OLBSTATE        LASTATE        FUNCTION        LINE
c       d       e       f
```

[3]
```
REPT OFLBOOT a
b
PID             TYPE
i       k
OLBSTATE        LASTATE        FUNCTION        LINE
c       d       e       f
```

[4]
```
REPT OFLBOOT a
b
LOCATION        VALUE
l       m
OLBSTATE        LASTATE        FUNCTION        LINE
c       d       e       f
```

[5]
```
REPT OFLBOOT a
b
PID             RID
i       n
OLBSTATE        LASTATE        FUNCTION        LINE
c       d       e       f
```

[6]
```
REPT OFLBOOT a
g h [p] b
OLBSTATE        LASTATE        FUNCTION        LINE
c       d       e       f
```

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```
[7]   REPT OFLBOOT a
      b r s t AUDITS          REASON u
      OLBSTATE        LASTATE        FUNCTION        LINE
      c       d       e      f
```

2. REASON FOR OUTPUT

These messages are output to report information regarding the execution of the offline boot feature.

3. VARIABLE FIELD DEFINITIONS

a = Message type.

- ABORTED — Application request to stop the offline boot procedure; devices moved to the off-line side will be restored.
- COMPLETED — Indicates off-line side boot has completed.
- INFO — For information only.
- STOPPED — Manual request to stop the offline boot procedure. If the RST option was specified, devices moved to the off-line side will be restored.
- TERMINATED — UNIX® RTR software-initiated termination of the offline boot procedure; devices moved to the off-line side will not be restored.

b = Text line.

1. ABORT DENIED DURING SWITCH

   Application-initiated aborts are ignored while SW:OFLBOOT is running.

2. ADP IS NOT RUNNING, CANNOT RESTORE *g h*

   Automatic diagnostic process (ADP) is not running, so the automatic restore of the specified unit will not be done.

3. AIM PRINTING OF PRE-CHECKS OR POST-CHECKS TIMED OUT

   Offline boot did not receive results of activities before the timers expired.

4. AIM REPORTED FAILURE TO REDUPLEX

   AIM reported failure to put the system back to its state previous to the off-line boot.

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5. AIM REPORTED FAILURE TO SPLIT

   AIM reported failure to split in preparation for booting off-line.

6. AIM REPORTED FAILURE TO TURN CALL PROCESSING OFF

   AIM reported call origination could not be turned off in preparation for side switching. If retrofit was not specified, SW:OFLBOOT will fail.

7. AIM REPORTED FAILURE TO TURN CALL PROCESSING ON

   AIM reported call origination could not be turned on.

8. AIM REPORTED PRE-CONFIGURATION FAILURES

   AIM reported pre-configuration errors in preparation for booting off-line.

9. CANNOT ACCESS A DIAGNOSTIC/MAINTENANCE SPECIAL DEVICE FILE

   There were problems in obtaining a special device file; therefore, a DFC cannot be removed. Offline boot will be terminated.

10. CANNOT ACCESS ECD

    Device information cannot be accessed from the RC/V ECD while booting off-line or side switching. Depending on the function *e* printed, there are different consequences:

CHECK_OOS	Cannot get a UCB record to verify that the unit has indeed been removed as part of RTR offline boot pre-configuration. Offline boot will be automatically terminated.
CHG_DFC	Cannot get a DFC UCB or a DFC sub-unit UCB record before moving it to the OOS state as part of stopping the offline boot. The DFC or its sub-unit will remain in the GROW state.
CHG_IOPS	Cannot get an IOP UCB or an IOP sub-unit UCB record before moving it to the OOS state as part of stopping the offline boot. The IOP or its sub-unit will remain in the GROW state.
DEGROW_DFC	Cannot get a DFC UCB record before unequipping it. The DFC will remain in the OOS state. Offline boot will be automatically terminated.

DEGROW_IOP	Cannot get an IOP UCB record before unequipping it. The IOP will remain in the OOS state. Offline boot will be automatically terminated.
EQUIP_CU	Cannot get CU UCB when equipping the CU community as part of stopping the offline boot. The complete CU community or some of its sub-units will remain in the UNEQIP state.
GROW_DFC	Cannot get a DFC UCB or a DFC sub-unit UCB record before equipping it as part of stopping the offline boot. The DFC or its sub-unit will remain in the UNEQIP state.
GROW_IOPS	Cannot get an IOP UCB or an IOP sub-unit UCB record before moving it to the OOS state as part of stopping the offline boot. The IOP or its sub-unit will remain in the UNEQIP state.
OLBCONTROL	Cannot get CU UCB record before removing the CU community. Offline boot will be automatically terminated.
RMV_DFC	Cannot get a DFC UCB record before removing it. Offline boot will be automatically terminated.
RMV_IOPS	Cannot get an IOP UCB record before removing it. If more than one IOP was specified in the EXC_OFLBOOT command line, then one or more IOPs may have been moved to the OOS state and remain that way even though offline boot has been automatically terminated. This is because one or more messages to remove IOP may have already been dispatched to the IODRV before this failure occurred.
RSTFCN	Cannot get a CU UCB record before sending ADP a message to restore the CU as part of stopping offline boot. The CU will remain in the OOS state.
RST_DFC	Cannot get a DFC UCB record before sending ADP a message to restore the DFC as part of stopping offline boot. The DFC will remain in the OOS state.

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RST_IOPS	Cannot get an IOP UCB record before sending ADP a message to restore it as part of stopping offline boot. If more than one IOP was specified in the EXC:OFLBOOT command line, then one or more IOPs may have been restored despite this failure. This is because one or more messages to ADP may have already been dispatched.
TIM_UNIT	Cannot get an IOP UCB record or an IOP sub-unit UCB record to report that the IODRV timed out when growing this device. The unknown device will remain in the UNEQIP or GROW state.
UNRESERVE	Cannot get a UCB record while stopping offline boot. Some units' records may remain reserved.

11. CANNOT CLOSE SPECIAL DEVICE FILE

    DKDRV could not close a special device file. Consequently, its internal tables are corrupt and indicate a DFC is undergoing maintenance forever.

12. CANNOT COPY MEMORY AREA FROM OFFLINE CU TO ONLINE CU

    Information cannot be transferred either from the on-line CU to the off-line side or vice versa.

13. CANNOT COPY MEMORY AREA FROM ONLINE CU TO OFFLINE CU

    Information cannot be transferred either from the on-line CU to the off-line side or vice versa.

14. CANNOT CREATE VFYDISKECD PROCESS

    The process that checks to see if a disk ECD RC/V session is in progress cannot be created.

15. CANNOT DETERMINE ACT IOP FOR MTTY OR ROP

    Either the system is missing its MTTY or ROP or the RC/V ECD is corrupt. Offline boot cannot be guaranteed under these conditions.

16. CANNOT DETERMINE IF OFFLINE SIDE IS RUNNING

    The on-line CU cannot determine if the off-line CU is running or not. Before the on-line CU tries to access the off-line CU for a memory copy, it needs to know whether the off-line CU is

running. This is done by reading the off-line CU SSR through a series of MCH instructions. These instructions failed, which indicates problems with the MCH. This condition sometimes results in automatic termination of offline boot.

17. `CANNOT GROW` *g h*

    Prints if a device cannot be grown.

18. `CANNOT OUTPUT POST MORTEM, REASON` *v*

    EIH could not output the post-mortem for reason *v*.

19. `CANNOT PORT SWITCH MTTY`

    A message could not be sent to the IODRV to port switch an MTTY or ROP device.

20. `CANNOT PORT SWITCH MTTY OR ROP`

    The IODRV did not respond to the port switch message in the allotted time frame. When the timer expired, EIH checked the MTTY and ROP devices and found that they had not been port switched.

21. `CANNOT PORT SWITCH ROP`

    A message could not be sent to the IODRV to port switch an MTTY or ROP device.

22. `CANNOT READ OFFLINE CU SSR`

    The on-line CU cannot determine if the off-line CU is running. Periodically, the on-line CU checks the off-line CU's SSR to know whether the off-line CU is running or not. This is done by reading the off-line CU SSR through a series of MCH instructions. The instructions failed which indicates problems with the MCH. This condition will result in the automatic termination of offline boot.

23. `CANNOT RECONFIGURE CU COMMUNITY`

    Devices could not be reconfigured due to RC/V ECD access or update failures. Another possibility is that the device was properly reconfigured, but a message could not be sent to RTS to update the display pages information.

24. `CANNOT RELEASE AN MDCT RECORD`

    While trying to release an MDCT RC/V ECD record of type diagnostic that is associated with the disk community, the RC/V ECD could not be accessed or updated.

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25. `CANNOT REMOVE DFC`

    Units could not be removed in preparation for booting off-line.

26. `CANNOT REMOVE IOP`

    Units could not be removed in preparation for booting off-line.

27. `CANNOT RESET SANITY TIMERS`

    Sanity timers cannot be reset or cleared.

28. `CANNOT RESTORE TO ORIGINAL STATE` *g h*

    Devices could not be reconfigured due to RC/V ECD access or update failures. Another possibility is that the device was properly reconfigured, but a message could not be sent to RTS to update the display pages information.

29. `CANNOT RESTORE` *g h*

    A message could not be sent to ADP to unconditionally restore a CU, DFC, or IOP community.

30. `CANNOT SEND DEGROWTH MESSAGE TO IODRV`

    Degrowth requests cannot be sent to IODRV in preparation for booting off-line.

31. `CANNOT SEND GROWTH MESSAGE TO DKDRV`

    Growth requests cannot be sent to DKDRV in order to reduplex the system.

32. `CANNOT SEND GROWTH MESSAGE TO IODRV`

    Growth requests cannot be sent to IODRV in order to reduplex the system.

33. `CANNOT SEND IOCLOSE MESSAGE TO DKDRV`

    A message cannot be sent to DKDRV requesting it to close a special device file. If the message prints twice, it means DKDRV will not have a chance to close a special device file. Consequently, its internal tables are corrupt and indicate a DFC is undergoing maintenance forever.

34. `CANNOT SEND IOOPEN MESSAGE TO DKDRV`

    Message cannot be sent to DKDRV. Usually the reason is that a message buffer cannot be allocated for the message.

35. `CANNOT SEND MESSAGE TO PMPRC`

    Message cannot be sent to PMPRC. Usually the reason is that a message buffer cannot be allocated for the message.

36. `CANNOT SEND MESSAGE TO USER PROCESS, PID` *i*

    Message cannot be sent to a user process identified by its process ID. Usually the reason is that a message buffer cannot be allocated for the message.

37. `CANNOT SEND OLBCPOFF MESSAGE TO AIM ERROR` *o*

    Message requesting AIM to turn call origination off failed. Reason for the failure is given in variable *o*.

38. `CANNOT SEND OLBCPON MESSAGE TO AIM ERROR` *o*

    EIH could not send a message to AIM of activity OLBCPON. This message is serious; the system does not have call origination. Reason for the failure is given in variable *o*.

39. `CANNOT SEND OLBDUPLEX MESSAGE TO AIM ERROR` *o*

    Message requesting AIM to reduplex failed. Reason for the failure is given in variable *o*.

40. `CANNOT SEND OLBPOSTSW MESSAGE TO AIM ERROR` *o*

    Message requesting AIM to take post-switch actions failed. Reason for the failure is given in variable *o*.

41. `CANNOT SEND OLBPRECFG MESSAGE TO AIM ERROR` *o*

    Message requesting AIM to pre-configure for an offline boot failed. Reason for the failure is given in variable *o*.

42. `CANNOT SEND OLBPRECHK MESSAGE TO AIM ERROR` *o*

    Message requesting AIM to perform offline boot pre-checks failed. Reason for the failure is given in variable *o*.

43. `CANNOT SEND OLBPRINT MESSAGE TO AIM ERROR` *o*

    Message requesting AIM to print the results of a previous check failed. Reason for the failure is given in variable *o*.

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44. `CANNOT SEND OLBSPLIT MESSAGE TO AIM ERROR` *o*

    Message requesting AIM to unequip application hardware RC/V ECD UCBs failed. Reason for the failure is given in variable *o*.

45. `CANNOT SEND REC_UPDATE MESSAGE TO DKDRV`

    Message cannot be sent to DKDRV to update its disk display pages. Usually the reason is that a message buffer cannot be allocated for the message.

46. `CANNOT SEND UNTRMV MESSAGE TO DKDRV`

    DFC remove request cannot be sent to DKDRV in preparation for booting off-line.

47. `CANNOT SEND UNTRMV MESSAGE TO IODRV`

    IOP remove request cannot be sent to IODRV in preparation for booting off-line.

48. `CANNOT SEND UNTRST MESSAGE TO IODRV`

    EIH could not send a message during a side switch to restore an MTTY, ROP, or SCC device.

49. `CANNOT UNEQIP DEVICES`

    CU community devices cannot be unequipped.

50. `CANNOT UNEQIP` *g h*

    DFC and IOP devices and their sub-units cannot be unequipped.

51. `CANNOT UPDATE ECD`

    The RC/V ECD cannot be updated. The reason is dependent on the function *e* printed:

`DFS`	Could not reserve a unit's UCB record as part of `EXC:OFLBOOT` pre-checks.
`UNRESERVE`	Could not unreserve a UCB record while stopping offline boot. Some units' UCB records may remain reserved.

52. `CC_OTHA IN THE ON-LINE`

    A level 1 interrupt has occurred. The other CC hardware has reported a store hardware fault error (ER12). See the *System Maintenance Manual* for more information on ER12. Offline boot will be terminated because of faulty hardware.

53. CC_OTHC IN THE ON_LINE

    A level 1 interrupt has occurred. The other CC hardware has reported a read parity fault hardware error (ER14). See the *System Maintenance Manual* for more information on ER14. Offline boot will be terminated because of faulty hardware.

54. CC_OTHD IN THE ON-LINE

    A level 1 interrupt has occurred. The other CC hardware has reported a refresh parity fault hardware error (ER13). See the *System Maintenance Manual* for more information on ER13. Offline boot will be terminated because of faulty hardware.

55. CC_OTHTO IN THE ON-LINE

    A level 1 interrupt has occurred. The other CC hardware has reported a store time-out hardware error (ER15). See the *System Maintenance Manual* for more information on ER15. Offline boot will be terminated because of faulty hardware.

56. CHANGED DISK FORCES

    The DFC that is now forced on-line is not the same DFC that was forced on-line when the offline boot procedure was started. Offline boot will be terminated.

57. CORRUPT TIMER SLOT

    EIH found that the timer slot did not correspond to the ongoing action. Because EIH cannot use the corrupt time value from the slot, it uses a best guess of the time value instead.

58. CORRUPT VALUE FOR ABORT TIMER

    The offline boot stop sequence can be started when EIH is performing an action that:

    — does not need a timer to monitor it (NOTIMER)

    — needs a timer to monitor it, but the timer has not been started (NEEDTIMER)

    — needs a timer to monitor it and the timer has been started (RUNNING).

    This information (NOTIMER, NEEDTIMER, or RUNNING) has been found to be inconsistent or corrupted in comparison with the ongoing action. EIH will assume the worst case (a timer is RUNNING) and continue with the stop sequence. This assumption may result in this text line printing several times.

59. `COULD NOT PORT SWITCH`

    The IODRV returned a port switch request message with a failure code.

60. `COULD NOT TELL SIM TO BLOCK ECD 1 AUDITS`

    The EIH process could not tell the SIM process to block the ECD 1 audits.

61. `COULD NOT TELL SIM TO BLOCK ECD 3 AUDITS`

    The EIH process could not tell the SIM process to block the ECD 3 audits.

62. `COULD NOT TELL SIM TO BLOCK ECD 2 (APPECD) AUDITS`

    The EIH process could not tell the SIM process to block the ECD 2 (appecd) audits.

63. `COULD NOT TELL SIM TO BLOCK ECD 2 (ECD) AUDITS`

    The EIH process could not tell the SIM process to block the ECD 2 (ecd) audits.

64. `COULD NOT TELL SIM TO UNBLOCK ECD 1 AUDITS`

    The EIH process could not tell the SIM process to unblock the ECD 1 audits.

65. `COULD NOT TELL SIM TO UNBLOCK ECD 3 AUDITS`

    The EIH process could not tell the SIM process to unblock the ECD 3 audits.

66. `COULD NOT TELL SIM TO UNBLOCK ECD 2 (APPECD) AUDITS`

    The EIH process could not tell the SIM process to unblock the ECD 2 (appecd) audits.

67. `COULD NOT TELL SIM TO UNBLOCK ECD 2 (ECD) AUDITS`

    The EIH process could not tell the SIM process to unblock the ECD 2 (ecd) audits.

68. `DFC PRECHECKS FAILED`

    DFC-related checks failed. Offline boot will be terminated.

69. `DISK RC/V ECD SESSION IN PROGRESS`

    A disk RC/V ECD session is in progress. Offline boot will be terminated.

70. DKDRV HAS NOT CLOSED SPECIAL DEVICE FILE FOR *g h*

    Indicates that RTR pre-configuration has not completed because the DKDRV has not closed a file used in removing the specified device.

71. ILLEGAL SW OFLBOOT COMMAND

    A side switch was requested outside of offline boot (that is, offline boot is not running).

72. INCORRECT OLBSTATE *c*

    When EIH was processing a system initialization fault, it found that it had to resume offline boot activities. However, the state information was corrupt. Hence, EIH will not be able to resume the offline boot.

73. INTERNAL DFC NUMBER CORRUPT

    Indicates corruption of EIH's internal offline boot data.

74. INTERNAL DFC TABLE CORRUPT

    Indicates corruption of EIH's internal offline boot data.

75. INTERNAL ERROR, BAD OLBSTATE *c* SEEK TECHNICAL ASSISTANCE

    An illegal instruction in EIH was found during the offline boot procedure.

76. INTERNAL INITLEVEL CORRUPT

    A system wide initialization (FLT_SINIT) was processed by EIH. EIH found it had to resume offline boot activities, but could not because the specified initialization level (2) might use a corrupt RC/V ECD. Offline boot will be terminated.

77. INTERNAL IOP TABLE CORRUPT

    Indicates corruption of EIH's internal offline boot data.

78. INTERNAL LOGIC ERROR

    Indicates a logic error has been encountered. Offline boot will be terminated.

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79. `INTERNAL UNITS TABLE CORRUPT`

    EIH used an RC/V ECD RID stored internally to read a RC/V ECD UCB record into a local buffer. When EIH tried to verify the buffer information, it found the device type field to be inconsistent. This situation indicates that, although the RID used by EIH was a valid one, it pointed to the incorrect UCB. That is, EIH's RID storage is corrupt. Also this could mean that the RC/V ECD UCB record itself is corrupt.

80. `INVALID MESSAGE RECEIVED`

    Invalid message was received from the process identified by its process ID.

81. `INVALID MESSAGE RECEIVED FROM AIM, ACTIVITY` *j*

    Invalid message was received from AIM.

82. `INVALID MESSAGE RECEIVED FROM IODRV, TYPE` *k*

    Invalid message was received from IODRV.

83. `INVALID OLBSTATUS FOR MESSAGE RECEIVED FROM AIM, ACTIVITY` *j*

    The activity carried out by AIM is inconsistent with the current OLBSTATE.

84. `LAST OLBSTATE` *d* `INVALID`

    During the stop offline boot sequence, state information used to determine how much work needs to be done was found to be corrupt. The stop sequence will assume the highest level of work is needed and continue.

85. `LAST OLBSTATE` *d* `INVALID FOR ABORT`

    During the stop offline boot sequence, state information used to determine how much work needs to be done was found to be corrupt. The stop sequence will assume the highest level of work is needed and continue.

86. `LATE MESSAGE RECEIVED`

    A message was received too late from the process identified by its process ID.

87. `LOW CORE AMODE CORRUPT`

    Indicates corruption of low core.

88. `LOW CORE IOPMASK CORRUPT`

    EIH cannot interpret the contents of the lowcore IOPMASK value because the contents of lowcore ORIGSIDE is corrupt.

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89. `LOW CORE ORIGSIDE CORRUPT`

    Indicates corruption of low core.

90. `MEMORY COPY FAILED`

    A memory-to-memory copy failed because either the off-line CU never halted to allow the copy or there was a `CC_OTHC` or `CC_OTHTO` fault.

91. `MESSAGE FROM PMPRC TOO LATE -- DISCARDING`

    Message was received out of time from PMPRC. EIH took a default action, which could include terminating the offline boot procedure.

92. `MESSAGE FROM DKDRV TOO LATE -- DISCARDING`

    Message was received out of time from DKDRV. EIH took a default action, which could include terminating the offline boot procedure.

93. `MESSAGE FROM VFYDISKECD TOO LATE -- DISCARDING`

    Message was received out of time from the VFYDISKECD process. EIH took a default action, which could include terminating the offline boot procedure.

94. `MESSAGE FROM AIM TOO LATE -- DISCARDING`

    Message was received out of time from AIM. EIH took a default action, which could include terminating the offline boot procedure.

95. `MTTY OR ROP NOT ACTIVE FOR ONLINE SIDE`

    MTTY, or ROP, or both are not active for the on-line CU. Offline boot is not supported without an MTTY and a ROP. Offline boot will be terminated.

96. `MUST BE ACT TO REMOVE`

    A device is in the wrong state to remove. The incorrect state is given in variable *p* which immediately precedes this text line.

97. `MUST BE IN ACT OR INIT STATE TO DEGROW`

    A device is in the ACT or INIT states when it should be in a state valid for the degrowth operation (OOS state). The incorrect state is given in variable *p* which immediately precedes this text line.

98. `MUST BE IN ACT OR INIT STATE TO REMOVE`

    A device is in the wrong state to remove. The incorrect state is given in variable *p* which immediately precedes this text line.

99. `MUST BE OOS TO RESTORE`

    A device is not in the state that the offline boot procedure expects it to be. The incorrect state is given in variable *p* which immediately precedes this text line.

100. `NO DISK FORCED`

    There is no DFC forced on-line.

101. `NO TIMER SLOTS AVAILABLE`

    Indicates internal timer slots are all used up. Timer slots are freed at this point and the "no timer slots available" message is printed.

102. `NOT ALL UNITS ARE OOS`

    Indicates not all units are OOS. Before offline boot moves a device to the off-line side, it first puts the device in the OOS state. One or more of the devices that are to be moved to the off-line side are not in the OOS state. Offline boot will be terminated.

103. `NOT IN GROW STATE`

    During the stop offline boot process, a unit has been found that is not in the correct state to allow it to be reconfigured back into service, or the unit in question has already been moved (not by offline boot) to some other unexpected state. In either case, the reconfiguration sequence is not followed for this device. The incorrect state is given in variable *p* which immediately precedes this text line.

104. `NOT IN UNEQIP STATE`

    A device is not in the state that the offline boot procedure expects it to be. The incorrect state is given in variable *p* which immediately precedes this text line.

105. `NOT OOS`

    EIH is expecting all the devices going to the off-line side to be in the OOS state. However, it has found that one or more of these devices are not in the OOS state. Offline boot will be terminated. The incorrect state is given in variable *p* which immediately precedes this text line.

106. `OFFLINE AIM REPORTED CHECKS FAILURE`

     AIM reported pre-check errors.

107. `OFFLINE BOOT TIMED OUT`

     The timer set for booting off-line has expired. Another timer will be set with the original timeout value and offline boot will continue until manually stopped or off-line AIM writes the completion word in low core.

108. `OFFLINE CU NOT RUNNING`

     Output by the on-line CU, this message indicates that the off-line CU is not running. Offline boot will be terminated.

109. `OFFLINE LOW CORE BOOT STATUS IS CORRUPT`

     The periodic monitor that checks whether AIM has written the boot completion word in the off-line low core found the contents of the word corrupt. It will assume that the boot is not done.

110. `OFFLINE RTR CHECKS FAILED ERROR` *q*

     UNIX® RTR encountered pre-check errors. Error is given in variable *q*.

111. `OFFLINE RTR-AIM COMMUNICATION FAILED`

     Indicates EIH could not send a message to AIM in the off-line side or that AIM did not reply on time.

112. `OFFLINE SIDE DID NOT COMPLETE THE LBOOT STEP`

     If failure PRMs are present, they will indicate that the disk unit (MHD 0 or MHD 1) used to boot the offline side is bad. Examples of corruption are a bad or non-existent VTOC or junk in the LBOOT partition. If failure PRMs are not present, there may be a problem with the MCH or the CU complex.

113. `OLBABORT EVENT RECEIVED -- ABORTING`

     Indicates EIH has received an abort event; procedures to stop the offline boot have begun. Procedures will attempt to restore units.

114. `OLBCONFIG EVENT RECEIVED -- ABORTING`

     Indicates EIH has received an abort event because an essential device like an SCC or MHD is not active nor unequipped; procedures to stop the offline boot have begun. Procedures will attempt to restore units.

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115. `OLBSTATE` *c* `EXPECTED EXC_BOOT OR SW_PRCHK`

    A timer expired, but the offline boot state machine was not in the state where the timer is valid. No action will be taken on the message; it will be discarded.

116. `OLBSTATE` *c* `NOT EXC_AIMECD`

    A timer expired, but the offline boot state machine was not in the state where the timer is valid. No action will be taken on the message; it will be discarded.

117. `OLBSTATE` *c* `NOT EXC_CFGAIM`

    A timer expired, but the offline boot state machine was not in the state where the timer is valid. No action will be taken on the message; it will be discarded.

118. `OLBSTATE` *c* `NOT EXC_POSTSW`

    A timer expired, but the offline boot state machine was not in the state where the timer is valid. No action will be taken on the message; it will be discarded.

119. `OLBSTATE` *c* `NOT EXC_RMV`

    A timer expired, but the offline boot state machine was not in the state where the timer is valid. No action will be taken on the message; it will be discarded.

120. `OLBSTATE` *c* `NOT STOP_IOPS`

    A timer expired, but the offline boot state machine was not in the state where the timer is valid. No action will be taken on the message; it will be discarded.

121. `PORT SWITCH NOT DONE`

    The IODRV returned a port switch request message with a success code. However, when EIH verified this against the ECD, it found that the devices had not really been port switched.

122. `RC/V ECD SESSION IN PROGRESS`

    An incore RC/V ECD session is in progress. Offline boot will be terminated.

123. `RESTORE OF MTTY,ROP,SCC AND/OR SCSDC FAILED AFTER SIDE SWITCH`

    During a side-switch, EIH received a message from the IODRV saying that it could not restore an MTTY, ROP, SCC, or SCSDC device.

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124. `RETROFIT NOT SPECIFIED -- REDUPLEXING`

    Call origination could not be turned on in the new on-line side during a side switch. Since the RETROFIT option was not specified, offline boot will be terminated immediately.

125. `RETROFIT SPECIFIED -- CONTINUING`

    Call origination could not be turned on in the new on-line side during a side switch. Since the RETROFIT option was specified, the side switch will continue its normal sequence. Notice, however, there is no call origination going on.

126. `SANITY TIMER NOT CLEARED`

    The off-line sanity timer cannot be cleared.

127. `SIM COULD NOT BLOCK` *r s t* `AUDITS REASON` *u*

    SIM reported to EIH that it could not block the requested audits. The requested audit name is *r* with member number *s* and the audit instance name is *t*. The reason is explained by the code *u*.

128. `SIM COULD NOT UNBLOCK` *r s t* `AUDITS REASON` *u*

    SIM reported to EIH that it could not unblock the requested audits. The requested audit name is *r* with member number *s* and the audit instance name is *t*. The reason is explained by the code *u*.

129. `SOME TERMINAL(S) UNDER OFF-LINE IOP MAY BE LOCKED`

    Some IOP assigned to the off-line side will not have all its subdevices equipped, and as a consequence, some terminal in the office, if any, will appear to be locked, i. e., the information displayed is out-dated, and no input is accepted.

130. `STOP DENIED DURING SWITCH`

    Offline boot cannot be stopped manually or through application requests during a side switch.

131. `SWITCH CALL PROCESSING OFF FAILED`

    AIM reported call origination could not be turned off in preparation for side switching. If retrofit was not specified, `SW:OFLBOOT` will fail.

132. `SWITCH CALL PROCESSING ON FAILED`

    AIM reported call origination could not be turned on.

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133. `SWITCH POSTSW FAILED`

    AIM reported post-switch work failed. There may be some application recovery needed. For example, it is possible that call origination is still turned off.

134. `SWITCH POSTSW TIMED OUT`

    AIM post-switch work timed out. There may be some application recovery needed. For example, it is possible that call origination is still turned off.

135. `SWITCH PRE-CHECK ONLY COMPLETED`

    The pre-check only option was specified in the application message requesting the side switch (that is, not a manual request to side switch).

136. `SWITCH TERMINATED`

    The side switch was terminated. There may be some application recovery needed. For example, it is possible that call origination is still turned off.

137. `SYSTEM STATUS INCONSISTENT WITH COMMAND LINE OPTIONS`

    Command line options do not match system status. This message will be output if any of the following conditions are true:

    — required unit is OOS and neither OOS nor UCL was specified

    — specified TTY does not exist

    — specified IOP does not exist

    — both IOP 0 and IOP 1 are selected for moving to the off-line side

    — a primary disk was not forced

    — a CU is forced

    — only one bootable disk is available or one of the bootable disks is not equipped

    — mate CU state is not STBY or OOS

    — if any RC/V ECD UCB record is reserved.

    This list is not exhaustive. Another output message has been output prior to this output message describing the problem.

138. TIME OUT - AIM POST-BOOT CHECKS

    EIH did not receive results of activities before timers expired. Either the on-line side or the off-line side timer to receive the results from the off-line AIM post-boot checks has expired. These post-boot results will not be available.

139. TIME OUT - AIM PRECONFIGURATION

    EIH did not receive results of activities before timers expired.

140. TIME OUT - CANNOT REMOVE EITHER CU, DFC AND/OR IOP

    EIH did not receive all the successful removal confirmation messages when the timer expired. It verified against the RC/V ECD that not all of the units were in the OOS state as expected.

141. TIME OUT DUPLEX ECD: AIM REPORTED *x*, RTR REPORTED *y*

    This message always results in continuing the STOP sequence in progress to the point where IOPs are duplexed and then to the end part of the STOP. Although AIM is involved in the STOP sequence, it did not cause the timeout. Therefore, the AIM duplex completion value *x* is printed for information purposes only. If *x* is NOTHING, AIM had not finished its duplexing at the moment the timeout occurred. If *x* is SUCCESS, AIM had successfully finished its STOP sequence. If *x* is FAILURE, AIM reported errors during its STOP sequence. This timeout was caused by RTR problems when growing DFC units. A value of NOTHING for *y* means RTR did not complete or report to EIH the status of the grow operations for the DFC units involved in the STOP sequence. A value of FAILURE for *y* means RTR failed to complete the grow operations for the DFCs units involved in the STOP sequence. A value of SUCCESS for *y* means RTR indicated a successful grow of the DFC units involved in a side switch; a logic error happened.

142. TIME OUT FOR RECEIVING RESULTS OF POST-BOOT CHECKS

    EIH did not receive results of activities before timers expired. Either the on-line side or the off-line side timer to receive the results from the off-line AIM post-boot checks has expired. These post-boot results will not be available.

143. TIME OUT RTR GROW: AIM REPORTED *x*, RTR REPORTED *y*

    This message always results in termination of the oflboot procedure. AIM is not involved in the side switch growth of units, hence, the value of *x* is always NOTHING; otherwise, a logic error happened. A value of NOTHING for *y* means RTR did not complete or did not report to EIH the status of the grow operations for the MTTY, ROP, SCC, and SCSDCs units involved in a side switch. A value of FAILURE for *y* means RTR failed to complete the grow operations for the MTTY, ROP, SCC, and SCSDCs units involved in a side switch. A value of SUCCESS for *y* means RTR indicated a successful grow of the units involved in a side switch; a logic error happened.

144. TIME OUT SPLIT ECD: AIM REPORTED *x*, RTR REPORTED *y*

    This message always results in termination of the oflboot procedure. A value of NOTHING for *x* or *y* means AIM or RTR or both did not complete or did not report to EIH the status of the split operation. A value of FAILURE for *x* or *y* means AIM or RTR or both failed to complete the split operation. A value of SUCCESS for *x* or *y* means AIM or RTR or both indicated a successful split of its units. Notice that, if both are SUCCESS, a logic error happened.

145. TIME OUT WHEN GROWING *g h*

    EIH did not receive the result of growing an IOP unit or sub-unit. The specified unit and its sub-units if any will be left in the UNEQIP state.

146. TRYING TO WRITE INVALID BOOTSTATUS TO LOW CORE

    EIH is trying to write an invalid value to low core.

147. TRYING TO WRITE INVALID IOPMASK TO LOW CORE

    EIH is trying to write an invalid value to low core.

148. TRYING TO WRITE INVALID IOPSUBUNIT TO LOW CORE

    EIH is trying to write an invalid value to low core.

149. TRYING TO WRITE INVALID MODE TO LOW CORE

    EIH is trying to write an invalid value to low core.

150. `TRYING TO WRITE INVALID MODIFIEDECD TO LOW CORE`

     EIH is trying to write an invalid value to low core.

151. `TRYING TO WRITE INVALID OFLTTY TO LOW CORE`

     EIH is trying to write an invalid value to low core.

152. `TRYING TO WRITE INVALID OLBACK TO LOW CORE`

     EIH is trying to write an invalid value to low core.

153. `TRYING TO WRITE INVALID OLBDFC TO LOW CORE`

     EIH is trying to write an invalid value to low core.

154. `TRYING TO WRITE INVALID OLBTRACE TO LOW CORE`

     EIH is trying to write an invalid value to low core.

155. `TRYING TO WRITE INVALID OLBUCL TO LOW CORE`

     EIH is trying to write an invalid value to low core.

156. `TRYING TO WRITE INVALID ORIGSIDE TO LOW CORE`

     EIH is trying to write an invalid value to low core.

157. `TRYING TO WRITE INVALID VALUE TO LOW CORE`

     EIH is trying to write an invalid value to low core.

158. `UNEXPECTED MESSAGE FROM AIM`

     EIH received a message from AIM (type OFLBOOT) whose activity was OLBPRECHK. However, EIH's internal state information (OLBSTATE) was inconsistent with the value specified in lowcore MODE for the specified activity (OLBPRECHK). This situation indicates either an illegal message was received from AIM or that a message buffer was overwritten and corrupted. EIH will drop this message and not take action on it.

159. `UNEXPECTED MESSAGE RECEIVED FROM`

     EIH received a message it cannot identify. The process ID and message type are provided to help identify the message.

160. UNIT REMOVAL FAILURE

During a side switch, the following devices are removed from the on-line side: MTTY, ROP, SCC, and SCSDs. The IODRV returned a message stating that one or more of these devices could not be moved to the OOS state. The side switch will continue. Furthermore, to prevent the IODRV from stealing these devices from the new on-line side, their RC/V ECD UCB records will be unequipped and messages will be sent to the IODRV to move them to the DEGROW state.

c = Current offline boot state.

d = Previous offline boot state.

e = Name of the function from which the output message originated. This field is used by UNIX® RTR in diagnosing offline boot problems.

f = Line number in the function *f* from which the output message originated. This field is used by UNIX® RTR, in conjunction with fields *c*, *d*, and *e*, to diagnose offline boot problems.

g = String giving device type information; CU, DFC, IOP, MHD, TTY, TTYC, and DSCH, for example. Unit names are listed in the Member Number Appendix, MEM-NUM-APPC, Table C, of this manual.

h = Device number. A value of zero, which used with *g*, could form DFC 0, for example.

i = Process identification number.

j = Activity defined in message sent from the AIM process.

k = Message type in message sent from the IODRV, AIM, or any other unknown process.

l = Memory location where the invalid value *n* is being written.

m = Invalid value that is being written to low core.

n = RID of the RC/V ECD UCB record for the unit that cannot be removed.

o = Reason message could not be sent.

0	process is not attached to its port or port is invalid
8192	process cannot queue more messages
-1	cannot allocate system message buffer

p = Device state.

q = Pre-check errors.

`1` Offline side is running in minimum configuration mode. System must be in full configuration mode for a side switch.

`2` Internal DFC table corrupt. Indicates corruption of EIH's internal offline boot data.

`3` Cannot get a DFC UCB record to get information for running pre-checks.

`4` An offline side DFC or DFC sub-unit is in the INIT state.

`5` Corrupt ECD UCB record for a DFC or DFC sub-unit. The device is in the STBY state which is not supported for DFC communities.

`6` An offline side DFC or DFC sub-unit either has a non-supported essential field or it is an essential or no_man_rmv device that is not active. For the latter, it could be UNAV, OFL, OOS, or GROW.

`7` Corrupt ECD UCB record for a DFC or DFC sub-unit. The device has an unsupported major state field in its UCB.

`10` Low core IOPMASK corrupt. EIH cannot interpret the contents of the low core IOPMASK value because the contents of low core ORIGSIDE is corrupt.

`11` No IOP in the off-line side. Indicates that IOP 0 and IOP 1 are both on the on-line side. The switch will fail because it will not have a MTTY or ROP on the other side.

`12` No IOP in the off-line side. Indicates that IOP 0 and IOP 1 are both on the on-line side. The switch will fail because it will not have a MTTY or ROP on the other side.

`13` Low core ORIGSIDE corrupt. Indicates corruption of low core.

`14` Internal IOP table corrupt. Indicates corruption of EIH's internal offline boot data.

`15` Cannot get IOP 0 or 1 UCB record to get information for running pre-checks.

`16` Internal units table corrupt. EIH used an RC/V ECD RID stored internally to read a RC/V ECD UCB record into a local buffer. When EIH tried to verify the buffer information, it found the device type field to be inconsistent. This situation indicates that, although the RID used by EIH was a valid one, it pointed to the incorrect UCB. That is, EIH's RID storage is corrupt. Also this could mean that the RC/V ECD UCB record itself is corrupt.

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17 Not ACT. The IOP is not in the ACT state.

18 Diagnostics running. Indicates the specified IOP, 0 or 1, RC/V ECD UCB record is marked "reserved." Most often this is the case when diagnostics, or other type of maintenance work, are running on a device.

19 The off-line side is running in full disk independent operation (DIOP) mode. The offline boot procedure cannot side switch to an impaired side.

20 Cannot get MTTYC 0 or 1 UCB record to get information for running pre-checks.

21 Internal units table corrupt. EIH used an RC/V ECD RID stored internally to read a MTTY controller RC/V ECD UCB record into a local buffer. When EIH tried to verify the buffer information, it found the device type field to be inconsistent. This situation indicates that, although the RID used by EIH was a valid one, it pointed to the incorrect UCB. That is, EIH's RID storage is corrupt. Also this could mean that the RC/V ECD UCB record itself is corrupt.

22 Not ACT. MTTYC 0 or 1 is not in the ACT state.

23 Diagnostics running. Indicates MTTYC 0 or 1 RC/V ECD UCB record is marked "reserved." Most often this is the case when diagnostics, or other type of maintenance work, are running on a device.

r = Audit name, such as ECD.

s = Audit member number, such as 1, 2, or 3.

t = Audit instance, such as "ecd" or "appecd".

u = Possible errors codes returned by SIM to the EIH request to block or unblock an ECD audit:

3 audit system initialization in progress

4 audit system initialization failed

5 access to audit record in the ECD failed

9 requested audit instance is blocked

19 invalid audit specified

20 invalid audit instance specified

30 request resulted in no change

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v = Possible reason codes why EIH could not output a post-mortem report:

`10` cannot copy post-mortem slots from off-line CU - the on-line CU is holding information in its slots

`11` RMF is not running

`12` cannot copy off-line post-mortem slots

w = RID of the RC/V ECD UCB record for the unit that cannot be restored automatically.

x = `NOTHING`, `SUCCESS`, or `FAILURE`

y = `NOTHING`, `SUCCESS`, or `FAILURE`

4. ACTION TO BE TAKEN

Text Line: Action to be Taken:

1. Indicates AIM tried to abort the offline boot while `SW:OFLBOOT` was executing.
2. Restore the unit manually.
3. This message is for information only; no action is needed.
4. Wait for offline boot to terminate. Some application devices may be in an incorrect state. If so, issue a `STOP:OFLBOOT;RST` command within 1 hour. Once the hour is passed, manual actions will be required to restore the application devices to their original states.
5. Wait for offline boot to terminate, clear the problem with the application, and try offline boot again.
6. If retrofit was not specified, offline boot will be terminated on the current on-line side. If retrofit was specified, wait for the side switch to complete, then manually stop offline boot. In either case, after offline boot is stopped or terminated, take whatever manual recovery steps are needed to re-establish call origination.
7. If retrofit was not specified, offline boot will be terminated on the new on-line side. If retrofit was specified, wait for the side switch to complete, then manually stop offline boot. In either case, after offline boot is stopped or terminated, take whatever manual recovery steps are needed to re-establish call origination.
8. Wait for offline boot to terminate, then try offline boot again.
9. Wait for offline boot to terminate, then try offline boot again.
10. Wait for offline boot to be terminated, then run RC/V ECD audits.
11. Seek technical assistance.
12. Wait for offline boot to terminate, then try offline boot again.
13. Wait for offline boot to terminate, then try offline boot again.
14. Wait for offline boot to terminate, then try offline boot again.

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15. If there is no active MTTY or ROP, restore them and try offline boot again. Otherwise, RC/V ECD is corrupt and RC/V ECD audits must be run. If the audits pass, try offline boot again.
16. If the message did not result in an automatic termination of offline boot, manually stop the procedure. Once offline boot is stopped, run the CU diagnostics, phases 1 through 4, 11, and 62; if successful, try offline boot again.
17. Manual recovery is needed to restore the device to its pre-offline boot state.
18. If the reported reason was 10 or 12, the problem is either that the output slot is being used by a higher priority message or that EIH is unable to complete copy. In either case, no action is needed. A reason of 11 indicates that the recovery message formatter (RMF) process is not running; seek technical assistance.
19. Indicates there were errors in port switching a device. Check device state and restore if needed.
20. Manual recovery is needed to restore the device to its pre-offline boot state.
21. Manual recovery is needed to restore the device to its pre-offline boot state.
22. Wait for offline boot to terminate, then run the CU diagnostics, phases 1 through 4, 11, and 63, to check the maintenance channel. If these particular phases do not reveal anything then run the complete CU diagnostics before trying offline boot again.
23. Manual recovery may be needed to restore the device(s). This can indicate RC/V ECD corruption. In this case, wait until offline boot is terminated, restore the devices, and run RC/V ECD audits.
24. A scarce system resource (a MDCT record of type diagnostic) has been lost. To recover it, run the ECDOWN audit or manually unreserve the RC/V ECD MDCT record.
25. Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.
26. Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.
27. This message is for information only; no action is needed.
28. Manual recovery may be needed to restore the device(s). This can indicate RC/V ECD corruption. In this case, wait until offline boot is terminated, restore the devices, and run RC/V ECD audits.
29. Manual recovery may be needed to restore the device(s). This can indicate RC/V ECD corruption. In this case, wait until offline boot is terminated, restore the devices, and run RC/V ECD audits.
30. Wait for offline boot to terminate, then try offline boot again.
31. Manual recovery is needed to restore the device to its pre-offline boot state.
32. Manual recovery is needed to restore the device to its pre-offline boot state.

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33. This message can occur twice. The first time this message occurs, ignore it; no action is needed. The second time this message prints, seek technical assistance.
34. Wait for offline boot to terminate, then try offline boot again.
35. Wait for offline boot to terminate, then try offline boot again.
36. This message is for information only; no action is needed.
37. If retrofit was not specified, the system will remain in offline boot. The side switch may be retried, if desired. If retrofit was specified, the side switch will continue; no action is needed.
38. If retrofit was not specified, offline boot will be terminated on the new on-line side. If retrofit was specified, wait for the side switch to complete, then manually stop offline boot. In either case, after offline boot is stopped or terminated, take whatever manual recovery steps are needed to re-establish call origination.
39. Application recovery must be carried out manually.
40. Seek technical assistance.
41. Wait for offline boot to terminate, then try offline boot again.
42. The action to be taken depends on the function *e* output with the message:

`HDL_OLB_OPCODE`	The off-line side EIH could not ask AIM to perform post-boot checks. No action is needed.
`OLBCONTROL`	The off-line side EIH could not ask AIM to perform side switch pre-checks; try the side switch again.

43. This message is for information only; no action is needed.
44. Wait for offline boot to terminate, then try offline boot again.
45. DKDRV did not have a chance to update its disk display pages. Restart the DKDIP process to have the pages show the correct information.
46. Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.
47. Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.
48. Manual recovery may be needed to restore the device(s). This can indicate RC/V ECD corruption. In this case, wait until offline boot is terminated, restore the devices, and run RC/V ECD audits.
49. Check to see why the device cannot be unequipped, resolve the problem, and try offline boot again.
50. Check to see why the device cannot be unequipped, resolve the problem, and try offline boot again.

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51. The action to be taken depends on the function *e* output with the message:

`DFS`	Run RC/V ECD audits. If the audits pass, try offline boot again.
`UNRESERVE`	If diagnostics are not running, then the RC/V ECD UCB record is corrupted; in which case, the UCB record needs to be unreserved manually or through the ECDOWN audit.

52. Seek technical assistance to run diagnostics.
53. Seek technical assistance to run diagnostics.
54. Seek technical assistance to run diagnostics.
55. Seek technical assistance to run diagnostics.
56. Wait for offline boot to terminate, force a DFC, and try again to boot off-line.
57. Notify technical assistance about this occurrence. No other action needs to be taken for `STOP:OFLBOOT` to complete.
58. Notify technical assistance about this occurrence. No other action needs to be taken for `STOP:OFLBOOT` to complete.
59. Indicates there were errors in port switching a device. Check device state and restore if needed.
60. This message is for information only; no action is needed.
61. This message is for information only; no action is needed.
62. This message is for information only; no action is needed.
63. This message is for information only; no action is needed.
64. Save the ROP output and report this incident to technical assistance.

NOTE: The audits will automatically be unblocked in six hours.

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66. Save the ROP output and report this incident to technical assistance.

NOTE: The audits will automatically be unblocked in six hours.

67. Save the ROP output and report this incident to technical assistance.

NOTE: The audits will automatically be unblocked in six hours.

68. Investigate the cause of the pre-check error, resolve the problem indicated, and try offline boot again.

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69. Wait for the RC/V ECD session to complete, then try offline boot again.

70. This message is for information only; no action is needed.

71. If an offline boot was underway, then the low core value of MODE has been corrupted; seek technical assistance. Otherwise, boot off-line and then side switch.

72. A manual `STOP:OFLBOOT` will be necessary because offline boot will not continue. Depending on the amount of state information corrupted, the `STOP:OFLBOOT` may result in cascading error messages; the stop process will complete, however.

73. The action to be taken depends on the function *e* output with this message:

    `DEGROW_DFC, RMV_DFC` - Wait for offline boot to be terminated. Run RC/V ECD audits, then retry offline boot.

    `CHG_DFC` The device will remain in the GROW state. If this was not its original state, wait for offline boot to be terminated, then manually change the device community to the OOS state and restore it to service.

    `RST_DFC` The device will remain in the OOS state. If this was not its original state, wait for offline boot to be terminated, then manually restore the device community to service.

74. The action to be taken depends on the function *e* output with this message:

    `DEGROW_DFC, RMV_DFC` - Wait for offline boot to be terminated. Run RC/V ECD audits, then retry offline boot.

    `CHG_DFC` The device will remain in the GROW state. If this was not its original state, wait for offline boot to be terminated, then manually change the device community to the OOS state and restore it to service.

    `RST_DFC` The device will remain in the OOS state. If this was not its original state, wait for offline boot to be terminated, then manually restore the device community to service.

75. Seek technical assistance.

76. Wait for offline boot to be terminated, restore the CU community, and try offline boot again.

77. The action to be taken depends on the function *e* output with this message:

    `DEGROW_IOPS, RMV_IOPS` - Wait for offline boot to be terminated. Run RC/V ECD audits, then retry offline boot.

    `GROW_IOPS` The device will remain in the UNEQIP state. If this was not its original state, wait for offline boot to be terminated, then manually grow the device community and restore it to service.

    `RST_IOPS` The device will remain in the OOS state. If this was not its original state, wait for offline boot to be terminated, then manually restore the device community to service.

78. Save the ROP output and seek technical assistance.

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79. The action to be taken depends on the function *e* output with this message:

    CHECK_OOS, DEGROW_DFC, DEGROW_IOPS, RMV_DFC, RMV_IOPS - Wait for offline boot to be terminated. Run RC/V ECD audits, then retry offline boot.

    CHG_DFC — The device will remain in the GROW state. If this was not its original state, wait for offline boot to be terminated, then manually change the device community to the OOS state and restore it to service.

    EQUIP_CU, GROW_DFC, GROW_IOPS - The device will remain in the UNEQIP state. If this was not its original state, wait for offline boot to be terminated, then manually grow the device community and restore it to service.

    RST_DFC — The device will remain in the OOS state. If this was not its original state, wait for offline boot to be terminated, then manually restore the device community to service.

    SWPRECHECK — The side switch will not succeed. To retry the side switch, first, stop offline boot manually; second, start another offline boot; third, try the side switch again once offline boot is complete.

80. Continue the offline boot procedure, save the ROP output, and report this incident to technical assistance.

81. Continue the offline boot procedure, save the ROP output, and report this incident to technical assistance.

82. Continue the offline boot procedure, save the ROP output, and report this incident to technical assistance.

83. Continue the offline boot procedure, save the ROP output, and report this incident to technical assistance.

84. No action is needed.

85. Seek technical assistance.

86. This message is for information only; no action is needed.

87. Save the ROP output and seek technical assistance.

88. If OLBSTATE is EXC_ONLECD, wait for offline boot to be terminated, then try it again.

    If the function *e* is SWPRECHECK, the side switch will not succeed. To retry to side switch, first, stop offline boot manually; second, start another offline boot; and third, try the side switch again after offline boot completes.

    Otherwise, this is happening during the offline boot stop sequence. Some DFCs or IOPs belonging to the off-line side will remain in the UNEQIP, GROW, or OOS state. If these were not the original states, manually move the devices to their original states.

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89. If OLBSTATE is EXC_ONLECD, wait for offline boot to be terminated, then try it again.

    If the function *e* is SWPRECHECK, the side switch will not succeed. To retry to side switch, first, stop offline boot manually; second, start another offline boot; and third, try the side switch again after offline boot completes.

    Otherwise, this is happening during the offline boot stop sequence. Some DFCs or IOPs belonging to the off-line side will remain in the UNEQIP, GROW, or OOS state. If these were not the original states, manually move the devices to their original states.

90. This message is for information only; no action is needed.

91. This message is for information only; no action is needed.

92. This message is for information only; no action is needed.

93. This message is for information only; no action is needed.

94. This message is for information only; no action is needed.

95. Check the status of the MTTY and ROP, restore the device that is not in the ACT state, and try offline boot again.

96. Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.

97. This message should read CANNOT BE IN ACT OR INIT STATE TO DEGROW. Stop offline boot manually, change the state of the device, and try offline boot again.

98. Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.

99. Manual recovery may be needed to restore the device(s). This can indicate RC/V ECD corruption. In this case, wait until offline boot is terminated, restore the devices, and run RC/V ECD audits.

100. If printed while executing EXC:OFLBOOT, wait for offline boot to terminate, force a DFC, and try again to boot off-line. If this message is printed as part of SW:OFLBOOT, wait for the side switch to fail, force the DFCs as they were at the beginning of the offline boot, and try to side switch again.

101. This message is for information only; no action is needed.

102. Wait for offline boot to be terminated. Check on why the DFC and all the IOPs to be moved to the off-line side are not in the OOS state. Resolve the problem, and then try offline boot again.

103. After the offline boot process is terminated, check whether this device requires manual action to be brought back to its original state.

104. No action is needed.

105. Wait for offline boot to be terminated. Then, check the states of the devices that were going to the off-line side. If any device is not in the OOS state, investigate why. After resolving any problem, try offline boot again.

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106. If post-boot checks failed, no action is needed. If side switch pre-checks failed, investigate what caused the pre-check error, resolve the problem, and try the side switch again.

107. Either manually stop offline boot or let it run until it completes. If this message is seen twice or more, offline boot may not complete and manually stopping it is recommended.

108. Check the on-line CU to see why it terminated. There may be some information in the off-line side post-mortem dump if one was output as part of the offline boot termination. If nothing is determined, try offline boot again after the termination is complete.

109. If the failure is part of a side switch, the side switch will be aborted if the RETROFIT option was not specified. If the RETROFIT option was specified, the system will be booted on the side targeted for switching and offline boot will terminate.

NOTE: If the reason for failure indicates bad hardware, it is recommended to stop the oflboot procedure and reschedule it when the hardware has been repaired.

110. The action to be taken depends on the value of *q*:

    `1` To side switch, stop oflboot and execute `EXC:OFLBOOT` without specifying the MINCONFIG option. When this second offline boot completes, try the side switch again.

    `2` Seek technical assistance.

    `3` The error is in the off-line side ECD which cannot be audited; seek technical assistance.

    `4` Wait for the INIT operation to complete and run `SW:OFLBOOT` again.

    `5` The error is in the off-line side ECD which cannot be audited; seek technical assistance.

    `6` If the error is an invalid essential field then it is in the off-line side ECD which cannot be audited; seek technical assistance. ESSENTIAL or NOMANRMV devices in GROW and OFL will fail the switch always; stop offline boot manually and seek technical assistance. ESSENTIAL or NOMANRMV devices in UNAV and OOS should be restored, then run `SW:OFLBOOT` again. If the restore operations fail the switch will always fail; stop offline boot manually and seek technical assistance.

    `7` The error is in the off-line side ECD which cannot be audited; seek technical assistance.

    `10` Seek technical assistance.

    `11` Stop offline boot; wait for it to terminate. Try oflboot with IOP 0 or IOP 1 specified. Wait for the off-line side to be booted, then try `SW:OFLBOOT` again.

    `12` Stop offline boot; wait for it to terminate. Try oflboot with IOP 0 or IOP 1 specified. Wait for the off-line side to be booted, then try `SW:OFLBOOT` again.

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13 Seek technical assistance.

14 Seek technical assistance.

15 The error is in the off-line side ECD which cannot be audited; seek technical assistance.

16 Seek technical assistance.

17 Restore the IOP and run `SW:OFLBOOT` again.

18 Run `SW:OFLBOOT` again after diagnostics complete.

19 Stop oflboot, repair the equipment that caused the off-line side to go into DIOP and execute `EXC:OFLBOOT`. When this second offline boot completes, try the side switch again.

20 The error is in the off-line side ECD which cannot be audited; seek technical assistance.

21 If there is no active MTTY controller, restore it and try offline boot again. Otherwise, RC/V ECD is corrupt and RC/V ECD audits must be run. If the audits pass, try offline boot again.

22 Restore the MTTY controller and run `SW:OFLBOOT` again.

23 Run `SW:OFLBOOT` again after MTTY controller diagnostics complete.

111. Check OLBLOG files on the off-line side to determine if AIM has a problem. Do NOT start a side switch if it does. Also, recover OLBLOG files and send them to technical assistance. If the message was part of a retrofit side switch, watch for correct operation on the new on-line side as AIM was having problems and it may not support call origination.

112. Wait for offline boot to terminate. If a disk is bad do not boot from it, booting from a corrupted disk can cause an outage; seek technical assistance. If the CU or MCH appears to be the problem, then run the CU diagnostics, phases 1 through 4, 11, and 63, to check the maintenance channel. If these particular phases do not reveal anything, then run the complete CU diagnostics before trying offline boot again.

113. No action is needed.

114. Restore or unequip the affected essential device before trying offline boot again.

115. Save the ROP output and notify technical assistance of this occurrence.

116. Save the ROP output and notify technical assistance of this occurrence.

117. Save the ROP output and notify technical assistance of this occurrence.

118. Save the ROP output and notify technical assistance of this occurrence.

119. Save the ROP output and notify technical assistance of this occurrence.

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120. Save the ROP output and notify technical assistance of this occurrence.

121. Indicates there were errors in port switching a device. Check device state and restore if needed.

122. Wait for the RC/V ECD session to complete, then try offline boot again.

123. Manual recovery may be needed to restore the device(s). This can indicate RC/V ECD corruption. In this case, wait until offline boot is terminated, restore the devices, and run RC/V ECD audits.

124. Indicates offline boot has encountered fatal errors and the RETROFIT option was not specified, so offline boot is terminated and the system is immediately reduplexed. When offline boot has terminated, perform whatever manual recovery steps are needed to re-establish call origination.

125. If function *e* is `TIM_CPON`, call origination is down. Wait for the side switch to finish, manually stop offline boot, and then take whatever actions are needed to re-establish call origination.

126. This message is for information only; no action is needed.

127. This message is for information only; no action is needed.

128. Save the ROP output and report this incident to technical assistance.

NOTE: The audits will automatically be unblocked in six hours.

129. No action is needed.

130. Wait until the side switch is finished, try `STOP:OFLBOOT` again on the new on-line side.

131. If retrofit was not specified, the system will remain in offline boot. The side switch may be retried, if desired. If retrofit was specified, the side switch will continue; no action is needed.

132. Check OLBLOG files on the off-line side to determine if AIM has a problem. If call origination is turned off, take whatever actions are needed to re-establish call origination.

133. Check to see if manual recovery is needed.

134. Check to see if manual recovery is needed.

135. This message is for information only; no action is needed.

136. Check to see if manual recovery is needed. It is possible that call origination is still turned off.

137. If this message is preceded by a pre-check failure message, follow the action to be taken specified by the preceding message. If not, then an initialization level of 2 was specified and the CU is in the OOS state. In this case, offline boot cannot continue because the OOS CU memory will be used for booting and it may be corrupt. Either specify a higher initialization level or restore the CU before trying the offline boot again.

138. No action is needed.

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139. Wait for offline boot to terminate, then try offline boot again.

140. Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.

141. Wait for offline boot to terminate. Check the ROP for previous messages detailing what could not be grown. Manually, grow those units and move them to OOS through RC/V; then restore them. If the message indicates a logic error, save the ROP and seek technical assistance.

142. No action is needed.

143. Wait for offline boot to terminate. Check the ROP for previous messages detailing what could not be grown. Manually, grow those units and move them to OOS through RC/V; then restore them. If the message indicates a logic error, save the ROP and seek technical assistance.

144. Wait for offline boot to terminate. Check the ROP for previous messages detailing what could not be split. Correct the problems and try offline boot again. If the message indicates a logic error, save the ROP and seek technical assistance.

145. To recover the units, wait for offline boot to terminate; use RC/V to move the units to GROW and then to OOS. Finally, restore the units manually.

146. Save the ROP output and seek technical assistance.

147. Save the ROP output and seek technical assistance.

148. Save the ROP output and seek technical assistance.

149. Save the ROP output and seek technical assistance.

150. Save the ROP output and seek technical assistance.

151. Save the ROP output and seek technical assistance.

152. Save the ROP output and seek technical assistance.

153. Save the ROP output and seek technical assistance.

154. Save the ROP output and seek technical assistance.

155. Save the ROP output and seek technical assistance.

156. Save the ROP output and seek technical assistance.

157. Save the ROP output and seek technical assistance.

158. Save the ROP output and seek technical assistance.

159. Save the ROP output and seek technical assistance.

160. No action is needed.

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5. ALARMS

For a minor alarm, take action as indicated in the report.

A major alarm may not be service affecting, but take immediate action as indicated in the report.

For a critical alarm, take immediate action as indicated in the report. Seek technical assistance if needed.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 704, 707, and 719.
Format 2 has OMDB keys of 705, and 708.
Formats 3, 4, and 5 have an OMDB key of 709.
Format 6 has an OMDB key of 706.
Format 7 has an OMDB key of 696.

Output Appendix
`MEM-NUM-APPC`

Input Messages
`EXC:OFLBOOT`
`STOP:OFLBOOT`
`SW:OFLBOOT`

Output Messages
`EXC-OFLBOOT`
`REPT-OFFLINE`
`STOP-OFLBOOT`
`SW-OFLBOOT`

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ID . . . . . REPT-OLBCONFIG
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT OLBCONFIG FAULT TYPE` *a* `UNIT =` *b* `PID =` *c* `LOCID =` *d*

[2] `REPT OLBCONFIG FAULT TYPE` *a* `INACCESSIBLE RID =` *e* `PID =` *c* `LOCID =` *d*

2. REASON FOR OUTPUT

To report a fault condition in the error interrupt handler (EIH) olbconfig function.

Format 1 is printed whenever the name of the unit can be determined. If not, Format 2 is printed.

3. VARIABLE FIELD DEFINITIONS

a = One or more fault types:

- `AMB` — Could not allocate a message buffer.
- `CI` — olbconfig internal failure.
- `EA` — Equipment configuration database (ECD) access problem.
- `ED` — ECD data invalid.
- `FSM` — Could not fault a process or send a message to a process.
- `IA` — Possible invalid argument.
- `PA` — Plant measurements database access problem.
- `PS` — Unit in protected state.

b = Name and number of unit.

c = Process number of the process which called the olbconfig function.

d = Identification number (LOCID number) of the fault in olbconfig.

e = Record ID (RID) of the unit control block (UCB) record in the equipment configuration database (ECD) of the unit.

4. ACTION TO BE TAKEN

If `OFLBOOT` is automatically terminated, run ECD audit.

5. ALARMS

None. This automatically-generated report is for information only.

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6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 711.
Format 2 has an OMDB key of 712.

ID . . . . . REPT-OORMR
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT OUT OF RANGE MEMORY REFERENCE X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e


            SAVE STATE
PA: gggggggg     PSW: hhhhhhhh     PSBR: iiiiiii     SSBR: jjjjjjj


          GENERAL REGISTERS
 0: kkkkkkkk      1: kkkkkkkk      2: kkkkkkkk      3: kkkkkkkk
 4: kkkkkkkk      5: kkkkkkkk      6: kkkkkkkk      7: kkkkkkkk
 8: kkkkkkkk      9: kkkkkkkk      A: kkkkkkkk      B: kkkkkkkk
 C: kkkkkkkk      D: kkkkkkkk      E: kkkkkkkk      F: kkkkkkkk
UTILITY ID: lllllll              PROCESS NUMBER: mmmmmmmm

REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

A program tried to access unequipped memory.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

g = The program address at the time of initialization (in hexadecimal). For software requested initializations this is the address of the PHASE OST and NOT the address where the problem was detected.

h = The processor status word (in hexadecimal). Among the information it contains are the execution level and the processor mode, i.e., kernel mode, kernel process, supervisor process, or user process. See *System Maintenance Manual,* Appendix P.

i = The contents of the primary segment base register (in hexadecimal).

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j = The contents of the secondary segment base register (in hexadecimal).

k = The contents of the sixteen general purpose registers (in hexadecimal).

R9: argument pointer
RA: frame pointer
RB: stack pointer

l = Process utility id (in hexadecimal). See *System Maintenance Manual*, Process / Problem Table.

m = Process number (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Forward the software log entry information to your technical assistance organization.

5. ALARMS

None.

6. REFERENCES

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ID . . . . . REPT-OORMR,OTHR
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT OUT OF RANGE MEMORY REFERENCE (OTHER STORE) X'a
ONLINE CU: b
FAULTY UNIT: c d e f
TIME OF ERROR: g


            SAVE STATE
PA: hhhhhhhh     PSW: iiiiiii     PSBR: jjjjjjj  SSBR: kkkkkkkk


          GENERAL REGISTERS
 0: lllllll      1: lllllll      2: lllllll      3: lllllll
 4: lllllll      5: lllllll      6: lllllll      7: lllllll
 8: lllllll      9: lllllll      A: lllllll      B: lllllll
 C: lllllll      D: lllllll      E: lllllll      F: lllllll
UTILITY ID: mmmmmmmm                PROCESS NUMBER: nnnnnnnn

REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

The off-line main memory considered the address to be out of range while the on-line memory did not. This usually indicates a problem with the off-line memory.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Community name.

d = Community number.

e = Unit name.

f = Unit number.

g = Time in form `mm/dd/yy hh:mm:ss`.

h = The program address at the time of initialization (in hexadecimal). For software requested initializations this is the address of the PHASE OST and NOT the address where the problem was detected.

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i = The processor status word (in hexadecimal). Among the information it contains are the execution level and the processor mode, i.e., kernel mode, kernel process, supervisor process, or user process. See *System Maintenance Manual*, Appendix P.

j = The contents of the primary segment base register (in hexadecimal).

k = The contents of the secondary segment base register (in hexadecimal).

l = The contents of the sixteen general purpose registers (in hexadecimal).

R9: argument pointer
RA: frame pointer
RB: stack pointer

m = Process utility id (in hexadecimal). See *System Maintenance Manual*, Process / Problem Table.

n = Process number (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Check and replace the fuses in the off-line memory (if necessary). Run diagnostics on off-line memory.

5. ALARMS

None.

6. REFERENCES

Output Message
DGN:MASC

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ID . . . . . REPT-OP,PMCR-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1]
```
REPT OP PMCR REPORT z 1
REPORTING OFFICE: a  REPORT INTERVAL: b
CURRENT GENERIC: c     d REPORT
DATE: e    TIME: f
REPORT PERIOD: g
DATA VALID: h

SYSTEM PERFORMANCE

ALARMS
  CRITICAL      i
  MAJOR         i     POWER MAJOR    i
  MINOR         i     POWER MINOR    i

INITIALIZATIONS     (4)    (3)    (2)    (1)
  HARDWARE AUTO                 j      j      j
  SOFTWARE AUTO                 j      j      j
  MANUAL          j      j      j      j

INTERRUPTS          (2)    (1)    (0)
         k      k      k

AUDITS              ATTEMPTS ERRORS
l    m     n     o
```

```
EQUIPMENT PERFORMANCE

                          DUPLEX
                AUTO  MTCE  MTCE  MTCE    MTCE
 QUANTY   FAULTS   ERRORS   DIAGS   ADP   MAN   FLT   USAGE
CU    p    q    r    s   t   u   v   w
EAI (UNIX® RTR R1 only)
IOP
DFC
SBUS (UNIX® RTR R6 only)
MHD
MTC
MT
ROP
MTTYC
MTTY
TTYC
TTY
SDLC
SCC
SDL
DUIC
DUI
SCSDC

APPLICATION EQUIPMENT PERFORMANCE

x   y   q   r   s   t   u   v   w

REPT OP PMCR REPORT z 1 COMPLETED

[2]  REPT OP PMCR REPORT z 2

REPORTING OFFICE: a  REPORT INTERVAL: b
CURRENT GENERIC: c      d REPORT
DATE: e      TIME: f
REPORT PERIOD: g
DATA VALID: h

EQUIPMENT PERFORMANCE

                        DUPLEX
              AUTO  MTCE MTCE  MTCE    MTCE
  UNIT  FAULTS  ERRORS  DIAGS  ADP   MAN   FLT   USAGE

x   y   q   r   s   t   u   v   w
```

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```
APPLICATION EQUIPMENT PERFORMANCE

x   y   q   r   s   t   u   v   w

REPT OP PMCR REPORT z 2 COMPLETED
```

2. REASON FOR OUTPUT

To report system performance statistics.

3. VARIABLE FIELD DEFINITIONS

a = Reporting office.

b = Report interval: HOURLY, DAILY, or DAY TO HOUR.

c = Current generic running in the reporting office.

d = Report type: SCHEDULED, RETAINED or DEMAND.

e = Date on which the report was generated.

f = Time of day.

g = Report period: that is, date and time of the beginning and end of the accumulation period of the appropriate report.

h = Data validity field: YES or NO, INITIALIZED (followed by date and time of the last system initialization).

i = Number of alarms of the specified type.

j = Number of system initializations of the specified type and level.

k = Number of processor error interrupts of the specified level.

l = Audit name.

m = Audit member number.

n = Number of audit attempts.

o = Number of audit failures.

p = Quantity of units of the specified type which have the plant bit set in the appropriate unit control block (UCB).

q = Number of requests for the given unit to go to a non-active state due to an error threshold having been exceeded.

r = Number of transient errors.

s = Number of routine automatic diagnostics.

t = The amount of time, in seconds, the unit is in a non-active state due to adp time.

u = The amount of time the unit is in a non-active state due to a manual request.

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v = The amount of time the unit is in a non-active state due to an error threshold having been exceeded.

w = The amount of time that the unit is forced active; valid for CU unit only.

x = Unit name.

y = Unit number.

z = PART (UNIX® RTR R1.5 - R6.3).
FORM (UNIX® RTR R6.4 and later).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 322.
Format 2 has an OMDB key of 323.

Input Messages
```
OP:PMCR
OP:ST;PORTS
```

Output Message
```
OP-PMCR
OP-PMCR,ERROR
```

ID . . . . . REPT-OP,PMCR-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1]
```
REPT OP PMCR REPORT z 1
REPORTING OFFICE: a  REPORT INTERVAL: b
CURRENT GENERIC: c     d REPORT
DATE: e    TIME: f
REPORT PERIOD: g
DATA VALID: h

SYSTEM PERFORMANCE

ALARMS
  CRITICAL      i
  MAJOR         i     POWER MAJOR    i
  MINOR         i     POWER MINOR    i

INITIALIZATIONS     (4)    (3)    (2)    (1)
  HARDWARE AUTO                  j      j      j
  SOFTWARE AUTO                  j      j      j
  MANUAL          j      j      j      j
  POWER AUTO      j

INTERRUPTS          (3)   (2)     (1)     (0)
          k     k      k      k

AUDITS              ATTEMPTS ERRORS
l     m     n     o
```

```
EQUIPMENT PERFORMANCE

                          DUPLEX
                AUTO  MTCE  MTCE  MTCE    MTCE
 QUANTY   FAULTS   ERRORS   DIAGS   ADP   MAN   FLT   USAGE
CU    p    q    r    s   t   u   v   w
EAI (UNIX® RTR R1.5 only)
IOP
DFC
SBUS (UNIX® RTR R6 and later)
MHD
MTC
MT
ROP
MTTYC
MTTY
TTYC
TTY
SDLC
SCC
SDL
DUIC
DUI
SCSDC

APPLICATION EQUIPMENT PERFORMANCE

x   y   q   r   s   t   u   v   w

REPT OP PMCR REPORT z 1 COMPLETED

[2]  REPT OP PMCR REPORT z 2

REPORTING OFFICE: a  REPORT INTERVAL: b
CURRENT GENERIC: c      d REPORT
DATE: e     TIME: f
REPORT PERIOD: g
DATA VALID: h

EQUIPMENT PERFORMANCE

                        DUPLEX
              AUTO  MTCE MTCE  MTCE    MTCE
  UNIT  FAULTS  ERRORS  DIAGS  ADP   MAN   FLT   USAGE

x   y   q   r   s   t   u   v   w


APPLICATION EQUIPMENT PERFORMANCE
```

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x y q r s t u v w

REPT OP PMCR REPORT *z 2* COMPLETED

2. REASON FOR OUTPUT

To report system performance statistics.

3. VARIABLE FIELD DEFINITIONS

a = Reporting office.

b = Report interval: HOURLY, DAILY, or DAY TO HOUR.

c = Current generic running in the reporting office.

d = Report type: SCHEDULED, RETAINED or DEMAND.

e = Date on which the report was generated.

f = Time of day.

g = Report period: that is, date and time of the beginning and end of the accumulation period of the appropriate report.

h = Data validity field: YES, NO or INITIALIZED (followed by date and time of the last system initialization).

i = Number of alarms of the specified type.

j = Number of system initializations of the specified type and level.

k = Number of processor interrupts of the following types:

0 — My (on-line) CC

1 — Other CC

2 — Software

3 — EAI

Type does not indicate priority level.

l = Audit name.

m = Audit member number.

n = Number of audit attempts.

o = Number of audit failures.

p = Quantity of units of the specified type which have the plant bit set in the appropriate unit control block (UCB).

q = Number of requests for the given unit to go to a non-active state due to an error threshold having been exceeded.

r = Number of transient errors.

s = Number of routine automatic diagnostics.

t = The amount of time, in seconds, the unit is in a non-active state due to adp time.

u = The amount of time the unit is in a non-active state due to a manual request. Units that are unequipped for offline boot will be reported as non-active due to a manual request on the original on-line side. On the original off-line side, unequipped units for offline boot will not be reported on.

v = The amount of time the unit is in a non-active state due to an error threshold having been exceeded.

w = The amount of time that the unit is forced active; valid for CU unit only.

x = Unit name.

y = Unit number.

z = PART (UNIX® RTR R1.5 - R6.3).
FORM (UNIX® RTR R6.4 and later).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 322.
Format 2 has an OMDB key of 323.

Input Messages
```
OP:PMCR
OP:ST;PORTS
```

Output Message
```
OP-PMCR
OP-PMCR,ERROR
```

ID . . . . . REPT-OP,PMER
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT OP PMCR ERROR` *a*[`,ERRNO =` *b*]

2. REASON FOR OUTPUT

To report errors encountered during the execution of the processes which comprise the plant measurements common report (PMCR) capability.

3. VARIABLE FIELD DEFINITIONS

a = Four-digit error code. This code consists of a one-digit number that indicates the PMCR process in which the error was detected, a two-digit number that indicates the error type, and a one-digit number that shows the location of the error within the specific process.

Process values are as follows:

`1` — PMCR craft interface
`2` — PMCR manager
`3` — PMCR collector
`4` — PMCR report generator

Error type values are as follows:

`01` — could not connect to system port
`02` — could not send or receive message
`03` — failed `plib` call
`04` — failed `pl_init` call
`05` — failed `pl_attrec` call
`06` — failed `pl_update` call
`07` — failed `pl_read` call
`08` — failed `lla_iatt` call
`09` — failed `lla_irel` call
`10` — failed `lla_rdget` call
`11` — failed `lla_opensq` call
`12` — failed `lla_nextseq` call
`13` — could not execute PMCR collector or PMCR report generator
`14` — could not get equipment configuration database (ECD) segments
`15` — could not get reporting office name from ECD
`16` — computation of maintenance usage time for the specified unit resulted in a time greater than 86,400 seconds (one day)
`17` — bad arguments received by PMCR report generator

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18 — spool error during output of report
19 — no data has been collected to output a retained/demand report
20 — `fopen` UNIX® operating system call failed trying to open the `/etc/pmcrtab` file to initialize the hourly/daily report option flags
When this error is output, the hourly/daily report flags will be set to the default. This means that the hourly reports will be output every hour, and the daily reports at midnight.
21 — `create` UNIX® call failed trying to create the `/etc/pmcrtab` file
This will cause the hourly/daily report flags to be reset to the default values, if the PMCR process `/prc/pmcrman` is re-initialized (for example, if a PHASE 2 occurs).
22 — PMDB initialization time reset to current time
23 — start time reset to 0
24 — start time reset to current time
25 — change reason for start time and reset start time to 0
26 — start time reset to top unit start time
27 — change reason for start time to top unit reason and reset start time to top unit start time
28 — hour limit exceeded - time reset to one hour
29 — negative time count - time reset to 0
30 — day limit exceeded - time reset to one day
31 — current value (for example, alarm count) is less than count recorded from previous hour or previous count was invalid
32 — open of `/etc/log/pmcrlog` file failed
33 — could not execute pmdbcopy

NOTE: For messages 23 through 32, see `/etc/log/pmcrlog` for record name information. These error messages indicate that the count or time for the unit may not be valid.

The log file (`/etc/log/pmcrlog`) is reset every time a scheduled report runs.

b = Error code returned by the failing function call:

If *a* = x01x, x02x, x03x, x13x, x14x, x15x, x16x, x181, or x182, see System Error Codes Output Appendix, `SYSERR-APP`.

If *a* = x04x, x05x, x06x, or x07x, *b* is the plant measurements error code number.

If *a* = x17x or x183, *b* is the value of the bad arguments passed to the function or process.

If *a* = x08x, x09x, x10x, x11x, x12x or x19x, *b* does not specify an error code.

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4. ACTION TO BE TAKEN

The following table shows the action to be taken based on error code *a*. In all instances, seek technical assistance if the error persists.

Table A

If *a* =	Action To Be Taken
x01x	Check port 27, using the `OP:STATUS;PORTS` input command, to see if another process has control of the port.
x02x	Check that the correct `OP:PMCR;ERR` input command was entered.
x03x - x07x	Check the usability of the plant measurements database.
x08x - x12x	Check the usability of the ECD.
x13x	Check the usability of the PMCR processes.
x14x - x15x	Check the usability of the ECD.
x16x	Check system clock versus last clean report.
x17x	Check that the correct `OP:PMCR` input command was entered.
x18x - x32x	No action can be taken.
x33x	Check the usability of the `/prc/pmdbcopy` process.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Keys
This message has OMDB keys of 213 and 319.

Output Appendix
`SYSERR-APP`

Input Messages
`OP:PMCR;ERR`
`OP:ST;PORTS`

Output Message
`REPT-OP-PMCR,REPORT`

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ID . . . . . REPT-OTHR,SHE
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MEMF

1. FORMAT

```
REPT OTHER STORE HARDWARE ERROR  X'a
ONLINE CU: b
FAULTY UNIT: c d e f
TIME OF ERROR: g
MAIN STORE CONTROLLER 0
TRAPPED ADDRESS REGISTER:  hhhhhhhh
ERROR REGISTER 1:  iiiiiiii
ERROR REGISTER 2:  jjjjjjjj
MAIN STORE CONTROLLER 1 (MAY NOT BE CONFIGURED)
TRAPPED ADDRESS REGISTER: kkkkkkkk
ERROR REGISTER 1:  lllllllll
ERROR REGISTER 2:  mmmmmmmm
REAL TIME CLOCK: nnnnnnnn
```

2. REASON FOR OUTPUT

These errors occur in the off-line control unit (CU), but are detected by the on-line CU.

The `OTHER STORE HARDWARE ERROR` occurs because the memory controller of the mate processor has a store error A condition.

3. VARIABLE FIELD DEFINITIONS

a = Sequence hexadecimal number associating this report with previous `REPT-CU` (see its parameter *d*).

b = Active CU number.

c = Community name.

d = Community number.

e = Unit name.

f = Unit number.

g = Time in form `mm/dd/yy hh:mm:ss`.

h = If bit 27 of the main store controller (MASC) 0 trapped address register (TAR0) is set, TAR0 contains the address, in hexadecimal, where the fault occurred.

i = The contents, in hexadecimal, of the MASC 0 error register 1 (ER01). See *System Maintenance Manual*, Appendix F.

j = The contents, in hexadecimal, of the MASC 0 error register 2 (ER02). See *System Maintenance Manual*, Appendix F.

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k = The contents, in hexadecimal, of the MASC 1 trapped address register (TAR1).

l = The contents, in hexadecimal, of the MASC 1 error register 1 (ER11). See *System Maintenance Manual*, Appendix F.

m = The contents, in hexadecimal, of the MASC 1 error register 2 (ER12). See *System Maintenance Manual*, Appendix F.

n = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the MRF.

4. ACTION TO BE TAKEN

For the OS hardware error, check the update cables on both processors and run diagnostics on the off-line processor.

For the case of `PARITY ERROR`, run diagnostics if the mate processor is removed from a standby state.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Output Message
`DGN-CU`

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

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ID . . . . . REPT-OTHR,SRDPE
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MEMF

1. FORMAT

```
REPT OTHER STORE READ PARITY ERROR  X'a
ONLINE CU: b
FAULTY UNIT: c d e f
TIME OF ERROR: g
MAIN STORE CONTROLLER 0
TRAPPED ADDRESS REGISTER:  hhhhhhhh
ERROR REGISTER 1:  iiiiiiii
ERROR REGISTER 2:  jjjjjjjj
MAIN STORE CONTROLLER 1 (MAY NOT BE CONFIGURED)
TRAPPED ADDRESS REGISTER: kkkkkkkk
ERROR REGISTER 1:  lllllllll
ERROR REGISTER 2:  mmmmmmmm
ERROR DATA:  nnnnnnnn
PHYSICAL MEMORY ADDRESS:  oooooooo
REAL TIME CLOCK: pppppppp
```

2. REASON FOR OUTPUT

These errors occur in the off-line control unit (CU), but are detected by the on-line CU.

The READ DATA PARITY ERROR indicates a noncorrectable memory error (other store C) in the mate processor. This type of error can only occur if the mate processor is in the standby state.

3. VARIABLE FIELD DEFINITIONS

a = Sequence hexadecimal number associating this report with previous REPT-CU (see its parameter *d*).

b = Active CU number.

c = Community name.

d = Community number.

e = Unit name.

f = Unit number.

g = The time in the form mm/dd/yy hh:mm:ss.

h = If bit 27 of the Main store controller (MASC) 0 trapped address register (TAR0) is set, TAR0 contains the address, in hexadecimal, where the fault occurred.

i = The contents of the MASC 0 error register 1 (ER01) (in hexadecimal). See *System Maintenance Manual*, Appendix F.

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j = The contents of the MASC 0 error register 2 (ER02) (in hexadecimal). See *System Maintenance Manual*, Appendix F.

k = The contents of the MASC 1 trapped address register (TAR1) (in hexadecimal).

l = The contents of the MASC 1 error register 1 (ER11) (in hexadecimal). See *System Maintenance Manual*, Appendix F.

m = The contents of the MASC 1 error register 2 (ER12) (in hexadecimal). See *System Maintenance Manual*, Appendix F.

n = Error data (in hexadecimal).

o = Physical memory address (in hexadecimal).

p = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the MRF.

4. ACTION TO BE TAKEN

For the OS hardware error, check the update cables on both processors and run diagnostics on the off-line processor.

For the case of `PARITY ERROR`, run diagnostics if the mate processor is removed from a standby state.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Output Message
`DGN-CU`

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ID . . . . . REPT-OTHR,SRFPE
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MEMF

1. FORMAT

```
REPT OTHER STORE REFRESH PARITY ERROR  X'a
ONLINE CU: b
FAULTY UNIT: c d e f
TIME OF ERROR: g
MAIN STORE CONTROLLER 0
TRAPPED ADDRESS REGISTER:  hhhhhhhh
ERROR REGISTER 1:  iiiiiiii
ERROR REGISTER 2:  jjjjjjjj
MAIN STORE CONTROLLER 1 (MAY NOT BE CONFIGURED)
TRAPPED ADDRESS REGISTER: kkkkkkkk
ERROR REGISTER 1:  llllllll
ERROR REGISTER 2:  mmmmmmmm
ERROR DATA:  nnnnnnnn
PHYSICAL MEMORY ADDRESS:  oooooooo
REAL TIME CLOCK: pppppppp
```

2. REASON FOR OUTPUT

These errors occur in the off-line control unit (CU), but are detected by the on-line CU.

The `REFRESH PARITY ERROR` indicates a correctable parity error (other store D) in the mate processor. This type of error can only occur if the mate processor is in the standby state.

3. VARIABLE FIELD DEFINITIONS

a = Sequence hexadecimal number associating this report with previous `REPT-CU` (see its parameter *d*).

b = Active CU number.

c = Community name.

d = Community number.

e = Unit name.

f = Unit number.

g = The time in the form `mm/dd/yy hh:mm:ss`.

h = If bit 27 of the Main store controller (MASC) 0 trapped address register (TAR0) is set, TAR0 contains the address, in hexadecimal, where the fault occurred.

i = The contents, in hexadecimal, of the MASC 0 error register 1 (ER01). See *System Maintenance Manual*, Appendix F.

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j = The contents, in hexadecimal, of the MASC 0 error register 2 (ER02). See *System Maintenance Manual*, Appendix F.

k = The contents, in hexadecimal, of the MASC 1 trapped address register (TAR1).

l = The contents, in hexadecimal, of the MASC 1 error register 1 (ER11). See *System Maintenance Manual*, Appendix F.

m = The contents, in hexadecimal, of the MASC 1 error register 2 (ER12). See *System Maintenance Manual*, Appendix F.

n = Error data (in hexadecimal).

o = Physical memory address (in hexadecimal).

p = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the MRF.

4. ACTION TO BE TAKEN

For the OS hardware error, check the update cables on both processors and run diagnostics on the off-line processor.

For the case of `PARITY ERROR`, run diagnostics if the mate processor is removed from a standby state.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Output Message
`DGN-CU`

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

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ID . . . . . REPT-OTHR,STOE
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . .

1. FORMAT

```
REPT OTHER STORE TIME-OUT ERROR   X'a
ONLINE CU: b
FAULTY UNIT: c d e f
TIME OF ERROR: g
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

The offline control unit (CU) memory controller has not responded to a memory access.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report.

b = Active CU number.

c = Community name.

d = Community number.

e = Unit name.

f = Unit number.

g = Time in form `mm/dd/yy hh:mm:ss`.

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Check the update cables on both processors and run diagnostics on the off-line processor.

5. ALARMS

None.

6. REFERENCES

Output Message
`DGN:CU`

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ID . . . . . REPT-OUTPUT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . SIM

1. FORMAT

```
REPT OUTPUT MESSAGES LOST
```

2. REASON FOR OUTPUT

To report that messages to the output spooler were discarded by the system integrity monitor (SIM) in an effort to recover from message buffer overload.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Expect that output messages from preceding input messages will not be printed. Determine which input messages should be reentered, and take action accordingly.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 449.

Output Messages
`PRM-0`
`REPT-SIMCHK`

Practice 254-341-120 *Interface and Integrity Facility DMERT/UNIX® RTR Operating System Lucent Technologies 3B20D Computer*

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ID . . . . . REPT-PASSWORD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . PSSWD

1. FORMAT

```
REPT PASSWORD BREAK ATTEMPT
"a" NON-EXISTING PASSWORDS OFFERED AT
TERMINAL 'b' BY UNKNOWN USER.
```

2. REASON FOR OUTPUT

To report a possible password break attempt.

3. VARIABLE FIELD DEFINITIONS

a = Number of passwords entered that do not exist.

b = Terminal identity.

4. ACTION TO BE TAKEN

Investigate. Minor.

5. ALARMS

Minor alarm. Take action as indicated in the report.

6. REFERENCES

None.

ID . . . . . REPT-PCPAUD-A
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

REPT PCPAUD FAULT TYPE *a* ASSERT = *b*

2. REASON FOR OUTPUT

To report an error detected during the control unit (CU) administrative sequences of the processor control process audit (PCPAUD) process, or to report errors in calling the PCPAUD process or internal logic errors within the PCPAUD process.

3. VARIABLE FIELD DEFINITIONS

a = Type of fault found.

NOTE: If the assert number, variable *b*, is 0x4002, see output Fault Code Appendix, FAULT-CODE-APP, for fault-type information.

Possible faults are:

- 0x2 — bad data in equipment configuration database (ECD) for a control unit (CU) or subunit
- 0x4 — could not access the ECD - possibly a bad record ID (RID)
- 0x6 — maintenance channel failed
- 0xA — a call to the KCONFIG library failed
- 0xC — erroneous major state for a CU unit or subunit
- 0xE — bad on-line system status register (SSR) value
- 0x10 — bad off-line SSR value
- 0x12 — bad on-line hardware status register (HSR) value
- 0x14 — bad off-line HSR value
- 0x18 — plant measurement library call failed
- 0x1a — audit control library call failed
- 0x1c — internal CUMEM or CUSTAT audit error
- 0x1e — off-line store access failed
- 0x20 — memory audit internal error
- 0x28 — failure to queue message to the power switch monitor (PSM)
- 0x2a — emergency action interface (EAI) buffers data mismatch
- 0x2c — SSR values inconsistent between CUs.

b = Assert number associated with the specific cause of the error. Assert numbers 0x3000 to 0x3fff report an error detected during the CU administrative sequences of the PCPAUD process. Assert numbers 0x4000 to 0x4fff report errors in calling the PCPAUD process or

internal logic errors within the PCPAUD process.
See the following table.

Assert Number	Description
0x3000	RID for on-line CU is IDNULL.
0x3001	Call to ECD *lla_rdget* to get on-line CU UCB unsuccessful.
0x3002	On-line CU UCB *u_dtype* (device type) not DEV_CU.
0x3003	RID for off-line CU is the same as RID for on-line CU.
0x3004	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x3005	Off-line CU UCB *u_dtype* (device type) not DEV_CU.
0x3006	Call to ECD *lla_rdget* to get on-line CU minor device chain table (MDCT) unsuccessful.
0x3007	MDCT for the on-line CU has too many *m_minxt* entries. This would indicate that there are more than two CUs.
0x3008	MDCT for the on-line CU has too many *m_minxt* entries. This would indicate that there are more than two CUs.
0x3009	MDCT *m_minxt[0]* equals *m_minxt[1]* indicating that CU0 and CU1 have the same RIDs.
0x300a	MDCT *m_minxt[0]* does not equal the RID for the on-line or off-line CU.
0x300b	MDCT *m_minxt[1]* does not equal the RID for the on-line or off-line CU.
0x3100	Maintenance channel (MCH) and update circuit not functional; but other CU UCB *u_stat* is STBY (standby).
0x3101	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x3102	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to UNAV unsuccessful.

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Assert Number	Description *(continued)*
0x3104	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to UNAV unsuccessful.
0x3105	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x3107	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to ON unsuccessful.
0x3108	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to OOS unsuccessful.
0x3109	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to OFF unsuccessful.
0x310a	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x3201	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to ON unsuccessful.
0x3202	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x3203	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to UNAV unsuccessful.
0x3204	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to OFF unsuccessful.
0x3206	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to ON unsuccessful.
0x3207	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to UNAV unsuccessful.
0x3208	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to OFF unsuccessful.
0x3209	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.

Assert Number	Description *(continued)*
0x320a	Call to ECD *lla_rdget* to get on-line CU UCB unsuccessful.
0x320b	Call to ECD *lla_uprid* to change on-line CU UCB unsuccessful.
0x320c	Call to plant measurements unsuccessful (PL_RDGET_ERROR).
0x320d	Call to plant measurements unsuccessful (PL_RCRT_ERROR).
0x320f	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to ON unsuccessful.
0x3210	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to OOS unsuccessful.
0x3211	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to OFF unsuccessful.
0x3212	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x3213	Call to ECD *lla_rdget* to get on-line CU UCB unsuccessful.
0x3214	Call to ECD *lla_uprid* to change on-line CU UCB unsuccessful.
0x3215	Call to plant measurements unsuccessful (PL_RDGET_ERROR).
0x3216	Call to plant measurements unsuccessful (PL_RCRT_ERROR).
0x3217	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x3218	Call to ECD *lla_uprid* to change off-line CU UCB unsuccessful.
0x3300	Call to *clrisc* to clear off-line CU initialization sequence control (ISC) bits unsuccessful (system status register (SSR) bits 4 and 5 - SSR_ISC0 and SSR_ISC1).
0x3402	Call to ECD *lla_rdget* to get on-line CU CSU 0 UCB unsuccessful; possibly bad cache RID for on-line CU.
0x3403	Call to ECD *lla_uprid* to change on-line CU CSU 0 UCB *u_bypass* to ON unsuccessful.

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Assert Number	Description *(continued)*
0x3404	Call to ECD *lla_rdget* to get off-line CU CSU 0 UCB unsuccessful; possibly bad cache RID for off-line CU.
0x3405	Call to ECD *lla_uprid* to change off-line CU CSU 0 UCB *u_bypass* to ON unsuccessful.
0x3406	Call to ECD *lla_rdget* to get on-line CU CSU 0 UCB unsuccessful; possibly bad cache RID for on-line CU.
0x3407	Call to ECD *lla_uprid* to change on-line CU CSU 0 UCB *u_bypass* to OFF unsuccessful.
0x3408	Call to ECD *lla_rdget* to get off-line CU CSU 0 UCB unsuccessful; possibly bad cache RID for off-line CU.
0x3409	Call to ECD *lla_uprid* to change off-line CU CSU 0 UCB *u_bypass* to OFF unsuccessful.
0x340a	Call to ECD *lla_rdget* to get boot device 0 UCB unsuccessful; possibly bad bdev0 RID.
0x340b	Call to ECD *lla_rdget* to get boot device 1 UCB unsuccessful; possibly bad bdev1 RID.
0x340d	Call to PCPAUD *scoflfbd* unsuccessful; possibly bad communications to off-line CU. *scoflfbd* adjusts off-line CU SSR force boot device bits (SSR_FBFP and SSR_FBDS, bits 6 and 7) to select the active boot device, if not forced by EAI.
0x340e	Call to PCPAUD *scoflfbd* unsuccessful; possibly bad communications to off-line CU. *scoflfbd* adjusts off-line CU SSR force boot device bits (SSR_FBFP and SSR_FBDS, bits 6 and 7) to select the active boot device, if not forced by EAI.
0x3500	Call to PCPAUD *syncrtc* unsuccessful; possibly bad communications to off-line CU. *syncrtc* reads the on-line CU real time clock (RTC) and writes it to the off-line CU RTC.

Assert Number	Description *(continued)*
0x3501	Call to PCPAUD *coflpso* unsuccessful; possibly bad communications to off-line CU. *coflpso* reads and clears the the periodic scanned options in the off-line CU EAI.
0x3702	Off-line CU is in enable update mode (SSR_UPD bit 19 asserted) or off-line CU is isolating its main store bus from the on-line CU (SSR_ISOU bit 21 asserted in the off-line CU).
0x3703	Call to PCPAUD *initofl* to initialize off-line CU unsuccessful; possibly bad communications to off-line CU. *initofl* initializes the MCH in the on-line and off-line CUs, and executes the initialization microcode in the off-line CU.
0x3704	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x3705	Off-line CU UCB *u_stat* is STBY (standby), but off-line CU UCB *u_update* is OFF (not updated) or on-line CU SSR is not in enable update mode (SSR_UPD bit 19 not asserted).
0x3706	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x3707	On-line CU not in enable update mode (SSR_UPD bit 19 not asserted), but off-line CU UCB *u_update* is ON (updated).
0x3708	Call to ECD *chucb* to change off-line CU UCBs *u_update* to NO unsuccessful.
0x3709	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x370a	On-line CU SSR not isolating other (off-line) CU from its main store bus (SSR_ISOU bit 21 not asserted).
0x3901	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to ON unsuccessful.
0x3902	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to OOS unsuccessful.

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Assert Number	Description *(continued)*
0x3903	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to OFF unsuccessful.
0x3904	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.

The following errors are errors found in calling the PCPAUD process or internal logic errors within the PCPAUD process. They cannot be reported via the audit control library (ACL) and otherwise do not fit any of the other categories.

Assert Number	Description *(continued)*
0x4000	Call to ACL *aud_minit* unsuccessful.
0x4001	Call to ACL *aud_finis* unsuccessful.
0x4002	PCPAUD was faulted, fault code is in field *a*. See output Fault Code Appendix, FAULT-CODE-APP, for type of fault information.
0x4003	Call to ACL *aud_finis* unsuccessful.
0x4004	Call to ACL *aud_error* unsuccessful.
0x4005	Call to ACL *aud_finis* unsuccessful.
0x4006	Call to ACL *aud_finis* unsuccessful.
0x4007	Call to ACL *aud_finis* unsuccessful.
0x4008	Call to ACL *aud_finis* unsuccessful.
0x4009	Call to ACL *aud_finis* unsuccessful.
0x400a	Neither CUSTAT or CUMEM was selected when PCPAUD was called to run an audit.
0x400b	Call to ECD *lla_rdget* unsuccessful.
0x400c	CUSTAT memory compare starting address is not on a full word boundary (internal error).
0x400d	Call to PCPAUD *memtst* did not complete successfully (internal error).
0x400e	Call to PCPAUD *memtst* did not complete successfully (internal error).

SEE PROPRIETARY NOTICE ON COVER PAGE

Assert Number	Description
0x400f	Call to PCPAUD *memtst* did not complete successfully (internal error).
0x4010	CUMEM starting address is not on a full word boundary (internal error).
0x4011	Call to PCPAUD *memtst* did not complete successfully (internal error).

Assert Number	Description
0x4012	PCPAUD has been unsuccessful in executing its event entry at least 8 times, or Call to *queuemn* unsuccessful (system error). PCPAUD could not return the PSM message to PSM after CU power-up initialization delay.
0x4013	PCPAUD has been unsuccessful in executing its fault entry at least 5 times.
0x4014	Call to *queuemn* unsuccessful (system error). PCPAUD could not return the PSM message to PSM after CU power-up initialization delay.
0x4015	Call to *queuemn* unsuccessful (system error). PCPAUD could not return the PSM message to PSM for false CU power-up.
0x4016	Call to ACL *aud_finis* unsuccessful.

4. ACTION TO BE TAKEN

Some of the faults reported will be corrected by PCPAUD. For others, manual actions are required to correct the problem. The following table contains some possible actions to specific error codes. If the message persists, contact your next level of technical assistance.

Fault Type	Action
0x4	Run ECD 1 audit.
0x6	Check maintenance channel cable. Run CU diagnostics on the off-line CU. The problem could also be in the on-line CU maintenance channel. Switch CUs, run CU diagnostics. The problem is serious and should be taken care of as soon as possible.
0xe	Take action on this error only if it occurs repeatedly. Switch CUs, run CU diagnostics.
0x10	Take action on this error only if it occurs repeatedly. Run CU diagnostics.
0x12	Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited on-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.
0x14	Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited off-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.
0x18	Run plant measurements system (PMS) 1 audit.
0x1e	Run CU diagnostics, switch CUs, run CU diagnostics.
0x2a	Clear the EAIs with a poke 14 on the EAI page of the MTTY. Take further action on this error only if it occurs repeatedly. Run CU diagnostics, switch CUs, run CU diagnostics.
0x2c	Take action on this error only if it occurs repeatedly. Either CU could cause inconsistent values between the SSRs. Run CU diagnostics, switch CUs, run CU diagnostics.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 430.

Output Appendix
FAULT-CODE-APP

Input Messages
AUD:CUMEM
AUD:CUSTAT

ID . . . . . REPT-PCPAUD-B
GENERIC . . . . . UNIX RTR R21.27 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT PCPAUD FAULT TYPE` *a* `ASSERT =` *b*

[2] `REPT PCPAUD FAULT TYPE` *c* `ASSERT =` *b*

2. REASON FOR OUTPUT

Formats 1 and 2 report errors detected during the control unit (CU) administrative sequences of the processor control process audit (PCPAUD) process, or to report errors in calling the PCPAUD process or internal logic errors within the PCPAUD process.

Format 2 is used when additional fault type information is provided.

3. VARIABLE FIELD DEFINITIONS

a = Type of fault found.

NOTE: If the assert number, variable *b*, is 0x4002, see output Fault Code Appendix, FAULT-CODE-APP, for fault-type information.

NOTE: If the assert number, variable *b*, is 0x3b02 or 0x3b03, see the fault type description for a translation of the fault type variable *c*.

Possible faults are:

- `0x0` — field unused. Refer to assert number for description of problem.
- `0x2` — bad data in equipment configuration database (ECD) for a control unit (CU) or subunit
- `0x4` — could not access the ECD - possibly a bad record ID (RID)
- `0x6` — maintenance channel failed
- `0xA` — a call to the KCONFIG library failed
- `0xC` — erroneous major state for a CU unit or subunit
- `0xE` — bad on-line system status register (SSR) value
- `0x10` — bad off-line SSR value
- `0x12` — bad on-line hardware status register (HSR) value
- `0x14` — bad off-line HSR value
- `0x18` — plant measurement library call failed
- `0x1a` — audit control library call failed
- `0x1c` — internal CUMEM or CUSTAT audit error
- `0x1e` — off-line store access failed
- `0x20` — memory audit internal error

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`0x28` — failure to allocate or queue message
`0x2a` — emergency action interface (EAI) buffers data mismatch
`0x2c` — SSR values inconsistent between CUs.
`0x2d` — Failure to attach to ECD or to get ECDORG data
`0x2e` — Failure is related to pcreating another process
`0x2f` — Timeout error

b = Assert number associated with the specific cause of the error.

Assert numbers 0x3000 to 0x3fff report an error detected during the CU administrative sequences of the PCPAUD process.

Assert numbers 0x4000 to 0x4fff report errors in calling the PCPAUD process or internal logic errors within the PCPAUD process.

See the following table.

Assert Number	Description
0x3000	RID for on-line CU is IDNULL.
0x3001	Call to ECD *lla_rdget* to get on-line CU UCB unsuccessful.
0x3002	On-line CU UCB *u_dtype* (device type) not DEV_CU.
0x3003	RID for off-line CU is the same as RID for on-line CU.
0x3004	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x3005	Off-line CU UCB *u_dtype* (device type) not DEV_CU.
0x3006	Call to ECD *lla_rdget* to get on-line CU minor device chain table (MDCT) unsuccessful.
0x3007	MDCT for the on-line CU has too many *m_minxt* entries. This would indicate that there are more than two CUs.
0x3008	MDCT for the on-line CU has too many *m_minxt* entries. This would indicate that there are more than two CUs.
0x3009	MDCT *m_minxt[0]* equals *m_minxt[1]* indicating that CU0 and CU1 have the same RIDs.
0x300a	MDCT *m_minxt[0]* does not equal the RID for the on-line or off-line CU.

Assert Number	Description *(continued)*
0x300b	MDCT *m_minxt[1]* does not equal the RID for the on-line or off-line CU.
0x300c	Call to *lla_rdget* to read in new ECD org structure unsuccessful. Will continue to use preceding ECD org data.
0x3100	Maintenance channel (MCH) and update circuit not functional; but other CU UCB *u_stat* is STBY (standby).
0x3101	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x3102	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to UNAV unsuccessful.
0x3104	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to UNAV unsuccessful.
0x3105	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x3107	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to ON unsuccessful.
0x3108	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to OOS unsuccessful.
0x3109	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to OFF unsuccessful.
0x310a	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x3201	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to ON unsuccessful.
0x3202	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x3203	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to UNAV unsuccessful.
0x3204	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to OFF unsuccessful.
0x3206	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to ON unsuccessful.

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Assert Number	Description *(continued)*
0x3009	MDCT *m_minxt[0]* equals *m_minxt[1]* indicating that CU0 and CU1 have the same RIDs.
0x3009	MDCT *m_minxt[0]* equals *m_minxt[1]* indicating that CU0 and CU1 have the same RIDs.
0x3009	MDCT *m_minxt[0]* equals *m_minxt[1]* indicating that CU0 and CU1 have the same RIDs.
0x3207	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to UNAV unsuccessful.
0x3208	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to OFF unsuccessful.
0x3209	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x320a	Call to ECD *lla_rdget* to get on-line CU UCB unsuccessful.
0x320b	Call to ECD *lla_uprid* to change on-line CU UCB unsuccessful.
0x320c	Call to plant measurements unsuccessful (PL_RDGET_ERROR).
0x320d	Call to plant measurements unsuccessful (PL_RCRT_ERROR).
0x320f	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to ON unsuccessful.
0x3210	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to OOS unsuccessful.
0x3211	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to OFF unsuccessful.
0x3212	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x3213	Call to ECD *lla_rdget* to get on-line CU UCB unsuccessful.
0x3214	Call to ECD *lla_uprid* to change on-line CU UCB unsuccessful.
0x3215	Call to plant measurements unsuccessful (PL_RDGET_ERROR).
0x3216	Call to plant measurements unsuccessful (PL_RCRT_ERROR).

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Assert Number	Description *(continued)*
0x3217	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x3218	Call to ECD *lla_uprid* to change off-line CU UCB unsuccessful.
0x3300	Call to *clrisc* to clear off-line CU initialization sequence control (ISC) bits unsuccessful (system status register (SSR) bits 4 and 5 - SSR_ISC0 and SSR_ISC1).
0x3402	Call to ECD *lla_rdget* to get on-line CU CSU 0 UCB unsuccessful; possibly bad cache RID for on-line CU.
0x3403	Call to ECD *lla_uprid* to change on-line CU CSU 0 UCB *u_bypass* to ON unsuccessful.
0x3404	Call to ECD *lla_rdget* to get off-line CU CSU 0 UCB unsuccessful; possibly bad cache RID for off-line CU.
0x3405	Call to ECD *lla_uprid* to change off-line CU CSU 0 UCB *u_bypass* to ON unsuccessful.
0x3406	Call to ECD *lla_rdget* to get on-line CU CSU 0 UCB unsuccessful; possibly bad cache RID for on-line CU.
0x3407	Call to ECD *lla_uprid* to change on-line CU CSU 0 UCB *u_bypass* to OFF unsuccessful.
0x3408	Call to ECD *lla_rdget* to get off-line CU CSU 0 UCB unsuccessful; possibly bad cache RID for off-line CU.
0x3409	Call to ECD *lla_uprid* to change off-line CU CSU 0 UCB *u_bypass* to OFF unsuccessful.
0x340a	Call to ECD *lla_rdget* to get boot device 0 UCB unsuccessful; possibly bad bdev0 RID.
0x340b	Call to ECD *lla_rdget* to get boot device 1 UCB unsuccessful; possibly bad bdev1 RID.
0x340d	Call to PCPAUD *scoflfbd* unsuccessful; possibly bad communications to off-line CU. *scoflfbd* adjusts off-line CU SSR force boot device bits (SSR_FBFP and SSR_FBDS, bits 6 and 7) to select the active boot device, if not forced by EAI.

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Assert Number	Description *(continued)*
0x340e	Call to PCPAUD *scoflfbd* unsuccessful; possibly bad communications to off-line CU. *scoflfbd* adjusts off-line CU SSR force boot device bits (SSR_FBFP and SSR_FBDS, bits 6 and 7) to select the active boot device, if not forced by EAI.
0x3500	Call to PCPAUD *syncrtc* unsuccessful; possibly bad communications to off-line CU. *syncrtc* reads the on-line CU real time clock (RTC) and writes it to the off-line CU RTC.
0x3501	Call to PCPAUD *coflpso* unsuccessful; possibly bad communications to off-line CU. *coflpso* reads and clears the the periodic scanned options in the off-line CU EAI.
0x3702	Off-line CU is in enable update mode (SSR_UPD bit 19 asserted) or off-line CU is isolating its main store bus from the on-line CU (SSR_ISOU bit 21 asserted in the off-line CU).
0x3703	Call to PCPAUD *initofl* to initialize off-line CU unsuccessful; possibly bad communications to off-line CU. *initofl* initializes the MCH in the on-line and off-line CUs, and executes the initialization microcode in the off-line CU.
0x3704	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x3705	Off-line CU UCB *u_stat* is STBY (standby), but off-line CU UCB *u_update* is OFF (not updated) or on-line CU SSR is not in enable update mode (SSR_UPD bit 19 not asserted).
0x3706	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x3707	On-line CU not in enable update mode (SSR_UPD bit 19 not asserted), but off-line CU UCB *u_update* is ON (updated).
0x3708	Call to ECD *chucb* to change off-line CU UCBs *u_update* to NO unsuccessful.
0x3709	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x370a	On-line CU SSR not isolating other (off-line) CU from its main store bus (SSR_ISOU bit 21 not asserted).
0x3901	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to ON unsuccessful.

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Assert Number	Description *(continued)*
0x3902	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to OOS unsuccessful.
0x3903	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to OFF unsuccessful.
0x3904	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x3b01	Call to PCPAUD *send_pm* function failed. Unable to pcreate **bootdiskchk** process.
0x3b02	Error found in PCPAUD *admseq11* audit of the DFC 0 side Alternate Boot Disk (ABD)
0x3b03	Error found in PCPAUD *admseq11* audit of the DFC 1 side Alternate Boot Disk (ABD)
0x3b04	Call to PCPAUD *send_pm* function failed. Unable to pcreate **bootdiskchk** process.

The following errors are errors found in calling the PCPAUD process or internal logic errors within the PCPAUD process. They cannot be reported via the audit control library (ACL) and otherwise do not fit any of the other categories.

Assert Number	Description
0x4000	Call to ACL *aud_minit* unsuccessful.
0x4001	Call to ACL *aud_finis* unsuccessful.
0x4002	PCPAUD was faulted, fault code is in field *a.* See output Fault Code Appendix, FAULT-CODE-APP, for type of fault information.
0x4003	Call to ACL *aud_finis* unsuccessful.
0x4004	Call to ACL *aud_error* unsuccessful.
0x4005	Call to ACL *aud_finis* unsuccessful.
0x4006	Call to ACL *aud_finis* unsuccessful.
0x4007	Call to ACL *aud_finis* unsuccessful.
0x4008	Call to ACL *aud_finis* unsuccessful.
0x4009	Call to ACL *aud_finis* unsuccessful.
0x400a	Neither CUSTAT or CUMEM was selected when PCPAUD was called to run an audit.
0x400b	Call to ECD *lla_rdget* unsuccessful.
0x400c	CUSTAT memory compare starting address is not on a full word boundary (internal error).
0x400d	Call to PCPAUD *memtst* did not complete successfully (internal error).
0x400e	Call to PCPAUD *memtst* did not complete successfully (internal error).

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Assert Number	Description *(continued)*
0x400f	Call to PCPAUD *memtst* did not complete successfully (internal error).
0x4010	CUMEM starting address is not on a full word boundary (internal error).
0x4011	Call to PCPAUD *memtst* did not complete successfully (internal error).
0x4012	PCPAUD has been unsuccessful in executing its event entry at least 8 times, or Call to *queuemn* unsuccessful (system error). PCPAUD could not return the PSM message to PSM after CU power-up initialization delay.
0x4013	PCPAUD has been unsuccessful in executing its fault entry at least 5 times.
0x4014	Call to *queuemn* unsuccessful (system error). PCPAUD could not return the PSM message to PSM after CU power-up initialization delay.
0x4015	Call to *queuemn* unsuccessful (system error). PCPAUD could not return the PSM message to PSM for false CU power-up.
0x4016	Call to ACL *aud_finis* unsuccessful.
0x4017	PCPAUD received an OST of a type not processed by PCPAUD. Variable *a* in the output message will contain the OST value.
0x4018	Call to **lla_iatt** unsuccessful (system error).
0x4019	Call to **lla_rdget** unsuccessful (system error). Unable to read new ECD org structure.
0x401a	Call to **kgetabdst** unsuccessful (system error).
0x401b	Call to create a process was unsuccessful.
0x401c	PCPAUD received a message from a non-existent process.

Assert Number	Description *(continued)*
0x401d	Call to **lla_iatt** unsuccessful (system error).
0x401e	Call to **lla_rdget** unsuccessful (system error). Unable to read new ECD org structure.
0x401f	Call to *alocmsg* unsuccessful (system error). PCPAUD could not allocate space for the message to termninate the **bootdiskchk** process.
0x4020	Call to *queuemn* unsuccessful (system error). PCPAUD could not queue the message to termninate the **bootdiskchk** process.
0x4021	Exceeded the maximum number of create attempts to start the **bootdiskchk** process.
0x4022	Timed out while waiting for results from the **bootdiskchk** process.

c = Type of fault found.

The following table applies to Assert Numbers 0x3b02 and 0x3b03. The character *n* refers to the hexadecimal value of the MHD number of the MHD being audited.

0xc001000n	Call to **lla_rdget** failed. Unable to get the MHD UCB for the MHD number in field *n*.
0xc002000n	Call to **lla_rdget** failed. Unable to get the SBUS UCB for the MHD number in field *n*.
0xc003000n	Call to **lla_rdget** failed. Unable to get the DFC UCB for the MHD number in field *n*.
0xc004000n	Call to **lla_rdget** failed. Unable to get the SBUS UCB for the MHD number in field *n*.
0xc005000n	The SBUS device ID for MHD *n* did not match that in the SBUS UCB.
0xc006000n	Call to **lla_rdget** failed. Unable to get the MHD UCB for the MHD number in field *n*.

Fault Type	Description *(continued)*
0xc007000n	The MHD device ID for MHD *n* did not match that in the MHD UCB.
0xc008000n	The unit number in the MHD ucb did not match MHD *n*.

4. ACTION TO BE TAKEN

Some of the faults reported will be corrected by PCPAUD. For others, manual actions are required to correct the problem. The following table contains some possible actions to specific error codes. If the message persists, contact your next level of technical assistance.

0x4	Run ECD 1 audit.
0x6	Check maintenance channel cable. Run CU diagnostics on the off-line CU. The problem could also be in the on-line CU maintenance channel. Switch CUs, run CU diagnostics. The problem is serious and should be taken care of as soon as possible.
0xe	Take action on this error only if it occurs repeatedly. Switch CUs, run CU diagnostics.
0x10	Take action on this error only if it occurs repeatedly. Run CU diagnostics.
0x12	Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited on-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.
0x14	Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited off-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.
0x18	Run plant measurements system (PMS) 1 audit.
0x1e	Run CU diagnostics, switch CUs, run CU diagnostics.
0x2a	Clear the EAIs with a poke 14 on the EAI page of the MTTY. Take further action on this error only if it occurs repeatedly. Run CU diagnostics, switch CUs, run CU diagnostics.
0x2c	Take action on this error only if it occurs repeatedly. Either CU could cause inconsistent values between the SSRs. Run CU diagnostics, switch CUs, run CU diagnostics.

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5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 430.

Output Appendix
FAULT-CODE-APP

Input Messages
AUD:CUMEM
AUD:CUSTAT

ID . . . . . REPT-PCPAUD-C
GENERIC . . . . . UNIX RTR R21.29 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT PCPAUD FAULT TYPE` *a* `ASSERT =` *b*

[2] `REPT PCPAUD FAULT TYPE` *c* `ASSERT =` *b*

2. REASON FOR OUTPUT

Formats 1 and 2 report errors detected during the control unit (CU) administrative sequences of the processor control process audit (PCPAUD) process, or to report errors in calling the PCPAUD process or internal logic errors within the PCPAUD process.

Format 2 is used when additional fault type information is provided.

3. VARIABLE FIELD DEFINITIONS

a = Type of fault found.

NOTE: If the assert number, variable *b*, is 0x4002, see output Fault Code Appendix, FAULT-CODE-APP, for fault-type information.

NOTE: If the assert number, variable *b*, is 0x3b02 or 0x3b03, see the fault type description for a translation of the fault type variable *c*.

Possible faults are:

- `0x0` — field unused. Refer to assert number for description of problem.
- `0x2` — bad data in equipment configuration database (ECD) for a control unit (CU) or subunit
- `0x4` — could not access the ECD - possibly a bad record ID (RID)
- `0x6` — maintenance channel failed
- `0xA` — a call to the KCONFIG library failed
- `0xC` — erroneous major state for a CU unit or subunit
- `0xE` — bad on-line system status register (SSR) value
- `0x10` — bad off-line SSR value
- `0x12` — bad on-line hardware status register (HSR) value
- `0x14` — bad off-line HSR value
- `0x18` — plant measurement library call failed
- `0x1a` — audit control library call failed
- `0x1c` — internal CUMEM or CUSTAT audit error
- `0x1e` — off-line store access failed

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`0x20` — memory audit internal error
`0x28` — failure to allocate or queue message
`0x2a` — emergency action interface (EAI) buffers data mismatch
`0x2c` — SSR values inconsistent between CUs.
`0x2d` — Failure to attach to ECD or to get ECDORG data
`0x2e` — Failure is related to pcreating another process
`0x2f` — Timeout error

b = Assert number associated with the specific cause of the error.

Assert numbers 0x3000 to 0x3fff report an error detected during the CU administrative sequences of the PCPAUD process.

Assert numbers 0x4000 to 0x4fff report errors in calling the PCPAUD process or internal logic errors within the PCPAUD process.

See the following table.

Assert Number	Description
0x3000	RID for on-line CU is IDNULL.
0x3001	Call to ECD *lla_rdget* to get on-line CU UCB unsuccessful.
0x3002	On-line CU UCB *u_dtype* (device type) not DEV_CU.
0x3003	RID for off-line CU is the same as RID for on-line CU.
0x3004	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x3005	Off-line CU UCB *u_dtype* (device type) not DEV_CU.
0x3006	Call to ECD *lla_rdget* to get on-line CU minor device chain table (MDCT) unsuccessful.
0x3007	MDCT for the on-line CU has too many *m_minxt* entries. This would indicate that there are more than two CUs.
0x3008	MDCT for the on-line CU has too many *m_minxt* entries. This would indicate that there are more than two CUs.
0x3009	MDCT *m_minxt[0]* equals *m_minxt[1]* indicating that CU0 and CU1 have the same RIDs.
0x300a	MDCT *m_minxt[0]* does not equal the RID for the on-line or off-line CU.

Assert Number	Description *(continued)*
0x300b	MDCT *m_minxt[1]* does not equal the RID for the on-line or off-line CU.
0x300c	Call to *lla_rdget* to read in new ECD org structure unsuccessful. Will continue to use preceding ECD org data.
0x3100	Maintenance channel (MCH) and update circuit not functional; but other CU UCB *u_stat* is STBY (standby).
0x3101	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x3102	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to UNAV unsuccessful.
0x3104	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to UNAV unsuccessful.
0x3105	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x3107	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to ON unsuccessful.
0x3108	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to OOS unsuccessful.
0x3109	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to OFF unsuccessful.
0x310a	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x3201	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to ON unsuccessful.
0x3202	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x3203	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to UNAV unsuccessful.
0x3204	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to OFF unsuccessful.
0x3206	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to ON unsuccessful.

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Assert Number	Description *(continued)*
0x3207	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to UNAV unsuccessful.
0x3208	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to OFF unsuccessful.
0x3209	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x320a	Call to ECD *lla_rdget* to get on-line CU UCB unsuccessful.
0x320b	Call to ECD *lla_uprid* to change on-line CU UCB unsuccessful.
0x320c	Call to plant measurements unsuccessful (PL_RDGET_ERROR).
0x320d	Call to plant measurements unsuccessful (PL_RCRT_ERROR).
0x320f	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to ON unsuccessful.
0x3210	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to OOS unsuccessful.
0x3211	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to OFF unsuccessful.
0x3212	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x3213	Call to ECD *lla_rdget* to get on-line CU UCB unsuccessful.
0x3214	Call to ECD *lla_uprid* to change on-line CU UCB unsuccessful.
0x3215	Call to plant measurements unsuccessful (PL_RDGET_ERROR).
0x3216	Call to plant measurements unsuccessful (PL_RCRT_ERROR).
0x3217	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.
0x3218	Call to ECD *lla_uprid* to change off-line CU UCB unsuccessful.
0x3300	Call to *clrisc* to clear off-line CU initialization sequence control (ISC) bits unsuccessful (system status register (SSR) bits 4 and 5 - SSR_ISC0 and SSR_ISC1).

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Assert Number	Description *(continued)*
0x3402	Call to ECD *lla_rdget* to get on-line CU CSU 0 UCB unsuccessful; possibly bad cache RID for on-line CU.
0x3403	Call to ECD *lla_uprid* to change on-line CU CSU 0 UCB *u_bypass* to ON unsuccessful.
0x3404	Call to ECD *lla_rdget* to get off-line CU CSU 0 UCB unsuccessful; possibly bad cache RID for off-line CU.
0x3405	Call to ECD *lla_uprid* to change off-line CU CSU 0 UCB *u_bypass* to ON unsuccessful.
0x3406	Call to ECD *lla_rdget* to get on-line CU CSU 0 UCB unsuccessful; possibly bad cache RID for on-line CU.
0x3407	Call to ECD *lla_uprid* to change on-line CU CSU 0 UCB *u_bypass* to OFF unsuccessful.
0x3408	Call to ECD *lla_rdget* to get off-line CU CSU 0 UCB unsuccessful; possibly bad cache RID for off-line CU.
0x3409	Call to ECD *lla_uprid* to change off-line CU CSU 0 UCB *u_bypass* to OFF unsuccessful.
0x340a	Call to ECD *lla_rdget* to get boot device 0 UCB unsuccessful; possibly bad bdev0 RID.
0x340b	Call to ECD *lla_rdget* to get boot device 1 UCB unsuccessful; possibly bad bdev1 RID.
0x340d	Call to PCPAUD *scoflfbd* unsuccessful; possibly bad communications to off-line CU. *scoflfbd* adjusts off-line CU SSR force boot device bits (SSR_FBFP and SSR_FBDS, bits 6 and 7) to select the active boot device, if not forced by EAI.
0x340e	Call to PCPAUD *scoflfbd* unsuccessful; possibly bad communications to off-line CU. *scoflfbd* adjusts off-line CU SSR force boot device bits (SSR_FBFP and SSR_FBDS, bits 6 and 7) to select the active boot device, if not forced by EAI.
0x3500	Call to PCPAUD *syncrtc* unsuccessful; possibly bad communications to off-line CU. *syncrtc* reads the on-line CU real time clock (RTC) and writes it to the off-line CU RTC.

Assert Number	Description *(continued)*
0x3501	Call to PCPAUD *coflpso* unsuccessful; possibly bad communications to off-line CU. *coflpso* reads and clears the the periodic scanned options in the off-line CU EAI.
0x3702	Off-line CU is in enable update mode (SSR_UPD bit 19 asserted) or off-line CU is isolating its main store bus from the on-line CU (SSR_ISOU bit 21 asserted in the off-line CU).
0x3703	Call to PCPAUD *initofl* to initialize off-line CU unsuccessful; possibly bad communications to off-line CU. *initofl* initializes the MCH in the on-line and off-line CUs, and executes the initialization microcode in the off-line CU.
0x3704	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x3705	Off-line CU UCB *u_stat* is STBY (standby), but off-line CU UCB *u_update* is OFF (not updated) or on-line CU SSR is not in enable update mode (SSR_UPD bit 19 not asserted).
0x3706	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x3707	On-line CU not in enable update mode (SSR_UPD bit 19 not asserted), but off-line CU UCB *u_update* is ON (updated).
0x3708	Call to ECD *chucb* to change off-line CU UCBs *u_update* to NO unsuccessful.
0x3709	Call to kconfig *fltdrvr* to remove other CU unsuccessful.
0x370a	On-line CU SSR not isolating other (off-line) CU from its main store bus (SSR_ISOU bit 21 not asserted).
0x3901	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to ON unsuccessful.
0x3902	Call to kconfig *chgstate* to change off-line CU UCB *u_stat* to OOS unsuccessful.
0x3903	Call to ECD *chucb* to change off-line CU UCBs *u_manrqst* to OFF unsuccessful.
0x3904	Call to ECD *lla_rdget* to get off-line CU UCB unsuccessful.

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Assert Number	Description *(continued)*
0x3b01	Call to PCPAUD *send_pm* function failed. Unable to pcreate **bootdiskchk** process.
0x3b02	Error found in PCPAUD *admseq11* audit of the DFC 0 side Alternate Boot Disk (ABD)
0x3b03	Error found in PCPAUD *admseq11* audit of the DFC 1 side Alternate Boot Disk (ABD)
0x3b04	Call to PCPAUD *send_pm* function failed. Unable to pcreate **bootdiskchk** process.

The following errors are errors found in calling the PCPAUD process or internal logic errors within the PCPAUD process. They cannot be reported via the audit control library (ACL) and otherwise do not fit any of the other categories.

Assert Number	Description
0x4000	Call to ACL *aud_minit* unsuccessful.
0x4001	Call to ACL *aud_finis* unsuccessful.
0x4002	PCPAUD was faulted, fault code is in field *a*. See output Fault Code Appendix, FAULT-CODE-APP, for type of fault information.
0x4003	Call to ACL *aud_finis* unsuccessful.
0x4004	Call to ACL *aud_error* unsuccessful.
0x4005	Call to ACL *aud_finis* unsuccessful.
0x4006	Call to ACL *aud_finis* unsuccessful.
0x4007	Call to ACL *aud_finis* unsuccessful.
0x4008	Call to ACL *aud_finis* unsuccessful.
0x4009	Call to ACL *aud_finis* unsuccessful.
0x400a	Neither CUSTAT or CUMEM was selected when PCPAUD was called to run an audit.
0x400b	Call to ECD *lla_rdget* unsuccessful.
0x400c	CUSTAT memory compare starting address is not on a full word boundary (internal error).
0x400d	Call to PCPAUD *memtst* did not complete successfully (internal error).
0x400e	Call to PCPAUD *memtst* did not complete successfully (internal error).

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Assert Number	Description *(continued)*
0x400f	Call to PCPAUD *memtst* did not complete successfully (internal error).
0x4010	CUMEM starting address is not on a full word boundary (internal error).
0x4011	Call to PCPAUD *memtst* did not complete successfully (internal error).
0x4012	PCPAUD has been unsuccessful in executing its event entry at least 8 times, or Call to *queuemn* unsuccessful (system error). PCPAUD could not return the PSM message to PSM after CU power-up initialization delay.
0x4013	PCPAUD has been unsuccessful in executing its fault entry at least 5 times.
0x4014	Call to *queuemn* unsuccessful (system error). PCPAUD could not return the PSM message to PSM after CU power-up initialization delay.
0x4015	Call to *queuemn* unsuccessful (system error). PCPAUD could not return the PSM message to PSM for false CU power-up.
0x4016	Call to ACL *aud_finis* unsuccessful.
0x4017	PCPAUD received an OST of a type not processed by PCPAUD. Variable *a* in the output message will contain the OST value. 0x4018T{ Call to **lla_iatt** unsuccessful (system error).
0x4019	Call to **lla_rdget** unsuccessful (system error). Unable to read new ECD org structure.
0x401a	Call to **kgetabdst** unsuccessful (system error).
0x401b	Call to create a process was unsuccessful.
0x401c	PCPAUD received a message from a non-existent process.

Assert Number	Description *(continued)*
0x401d	Call to **lla_iatt** unsuccessful (system error).
0x401e	Call to **lla_rdget** unsuccessful (system error). Unable to read new ECD org structure.
0x401f	Call to *alocmsg* unsuccessful (system error). PCPAUD could not allocate space for the message to termninate the **bootdiskchk** process.
0x4020	Call to *queuemn* unsuccessful (system error). PCPAUD could not queue the message to termninate the **bootdiskchk** process.
0x4021	Exceeded the maximum number of create attempts to start the **bootdiskchk** process.
0x4022	Timed out while waiting for results from the **bootdiskchk** process.
0x4023	Call to **lla_rdget** unsuccessful (system error). Unable to read ECD btparm structure used with REPT ECD report.

c = Type of fault found.

The following table applies to Assert Numbers 0x3b02 and 0x3b03. The character *n* refers to the hexadecimal value of the MHD number of the MHD being audited.

0xc001000n	Call to **lla_rdget** failed. Unable to get the MHD UCB for the MHD number in field *n*.
0xc002000n	Call to **lla_rdget** failed. Unable to get the SBUS UCB for the MHD number in field *n*.
0xc003000n	Call to **lla_rdget** failed. Unable to get the DFC UCB for the MHD number in field *n*.
0xc004000n	Call to **lla_rdget** failed. Unable to get the SBUS UCB for the MHD number in field *n*.
0xc005000n	The SBUS device ID for MHD *n* did not match that in the SBUS UCB.
0xc006000n	Call to **lla_rdget** failed. Unable to get the MHD UCB for the MHD number in field *n*.

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Fault Type	Description *(continued)*
0xc007000n	The MHD device ID for MHD *n* did not match that in the MHD UCB.
0xc008000n	The unit number in the MHD ucb did not match MHD *n*.

4. ACTION TO BE TAKEN

Some of the faults reported will be corrected by PCPAUD. For others, manual actions are required to correct the problem. The following table contains some possible actions to specific error codes. If the message persists, contact your next level of technical assistance.

0x4,0x2d	Run ECD 1 audit.
0x6	Check maintenance channel cable. Run CU diagnostics on the off-line CU. The problem could also be in the on-line CU maintenance channel. Switch CUs, run CU diagnostics. The problem is serious and should be taken care of as soon as possible.
0xe	Take action on this error only if it occurs repeatedly. Switch CUs, run CU diagnostics.
0x10	Take action on this error only if it occurs repeatedly. Run CU diagnostics.
0x12	Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited on-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.
0x14	Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited off-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.
0x18	Run plant measurements system (PMS) 1 audit.
0x1e	Run CU diagnostics, switch CUs, run CU diagnostics.
0x2a	Clear the EAIs with a poke 14 on the EAI page of the MTTY. Take further action on this error only if it occurs repeatedly. Run CU diagnostics, switch CUs, run CU diagnostics.
0x2c	Take action on this error only if it occurs repeatedly. Either CU could cause inconsistent values between the SSRs. Run CU diagnostics, switch CUs, run CU diagnostics.

5. ALARMS

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None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 430.

Output Appendix
FAULT-CODE-APP

Input Messages
AUD:CUMEM
AUD:CUSTAT

ID . . . . . REPT-PCPMD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT PCPMD FAULT TYPE` *a* `UNIT =` *b* `ASSERT =` *c*

[2] `REPT PCPMD FAULT TYPE` *a* `INACCESSIBLE RID =` *d* `ASSERT =` *c*

2. REASON FOR OUTPUT

To report an error condition in the processor control process maintenance driver (PCPMD).

Format 1 is printed whenever the name of the unit can be determined. If not, Format 2 is printed.

3. VARIABLE FIELD DEFINITIONS

a = Fault type. One or more of the following codes:

- `BOFL` — Maintenance channel (MCH) buffer overflow.
- `ECDA` — Equipment configuration database (ECD) access problem.
- `EMCH` — Incorrect number of MCH orders executed.
- `EONL` — Bad return from on-line diagnostic.
- `ESIM` — Could not fault system integrity monitor (SIM).
- `IARG` — Invalid argument.
- `IDCP` — PCPMD internal error.
- `SPRC` — Slave processor.
- `WAKE` — Supervisor wakeup failed.

b = Unit name.

c = Identification number (ASSERT number) of the FAULT in PCPMD.

d = Record ID (RID) of the unit control block (UCB) record in the ECD.

4. ACTION TO BE TAKEN

Consider bootstrapping for fault type ECDA. For other cases, save a copy of the output message and seek technical assistance.

5. ALARMS

None. This automatically-generated report is for information only.

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6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 432.
Format 2 has an OMDB key of 431.

ID . . . . . REPT-PHASE
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT PHASE a IN PROGRESS
```

2. REASON FOR OUTPUT

To report the occurrence of a system phase.

3. VARIABLE FIELD DEFINITIONS

a = Phase level number. See the *System Maintenance Manual.*

4. ACTION TO BE TAKEN

None. This message is for information only.

5. ALARMS

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

If a critical alarm occurs, take immediate action as indicated in the report. Seek technical assistance if needed.

6. REFERENCES

OMDB Keys
There is an OMDB key of 426 for phase 1 and an OMDB key of 166 for phases 2, 3, and 4.

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

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ID . . . . . REPT-PINV
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT PINV - PAGE INVALID X'a
FAULTY UNIT:    CU b
TIME OF ERROR: c


            SAVE STATE
PA: ddddddddd     PSW: eeeeeeee  PSBR: ffffffff  SSBR: gggggggg


          GENERAL REGISTERS
 0: hhhhhhhh       1: hhhhhhhh       2: hhhhhhhh       3: hhhhhhhh
 4: hhhhhhhh       5: hhhhhhhh       6: hhhhhhhh       7: hhhhhhhh
 8: hhhhhhhh       9: hhhhhhhh       A: hhhhhhhh       B: hhhhhhhh
 C: hhhhhhhh       D: hhhhhhhh       E: hhhhhhhh       F: hhhhhhhh
UTILITY ID: iiiiiiii              PROCESS NUMBER: jjjjjjj
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

A process has attempted to access a page that is not in its page table.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Faulted control unit (CU) number.

c = Time in form `mm/dd/yy hh:mm:ss`.

d = The program address at the time of initialization (in hexadecimal). For software requested initializations this is the address of the PHASE OST and NOT the address where the problem was detected.

e = The processor status word (in hexadecimal). Among the information it contains are the execution level and the processor mode, i.e., kernel mode, kernel process, supervisor process, or user process. See *System Maintenance Manual*, Appendix P.

f = The contents of the primary segment base register (in hexadecimal).

g = The contents of the secondary segment base register (in hexadecimal).

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h = The contents of the sixteen general purpose registers (in hexadecimal).

R9: argument pointer
RA: frame pointer
RB: stack pointer

i = Process utility id (in hexadecimal). See *System Maintenance Manual*, Process / Problem Table.

j = Process number (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Save the ERLOG output, note the UID of the process that was reported and inform the next level of support. This is a software problem and requires no diagnostic or board replacements.

5. ALARMS

None.

6. REFERENCES

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

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ID . . . . . REPT-PLDMON,ERR
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `REPT PLDMON ERROR` *a* `ERRNO` *b*

[2] `REPT PLDMON ERROR` *a* `UNIT` *c d*

2. REASON FOR OUTPUT

To report errors discovered by pldmon while attempting to update the plant measurements system (PMS) database.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error codes:

- `1` — cannot initialize PMS database
- `2` — cannot update setid record
- `3` — cannot read maintenance usage records
- `4` — cannot attach to maintenance usage record
- `5` — cannot update maintenance usage record
- `6` — ptimer call failed
- `7` — negative maintenance usage time found for the OOS unit named, or the plant database record for the OOS unit named was updated more than 15 minutes ago
- `8` — cannot allocate message buffer for scheduling hourly report
- `9` — cannot get process ID for PMCR port
- `10` — cannot queue message for scheduling hourly report
- `11` — unknown fault message buffer released

b = Error type returned for technical evaluation. Seek technical assistance for interpretation.

c = Unit name.

d = Unit number.

4. ACTION TO BE TAKEN

For error codes 1 through 5, check the usability of the PMS database.

For error code 6, `PLDMON` will not run again until a system phase occurs. Seek technical assistance.

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For error code 7, if the error is printed due to a negative maintenance usage time for an OOS unit, it may be because of a change in the system clock. The start time for that unit in the database will be set to the current time. No action is needed. The error message is printed to warn that a discrepancy might be reflected for that unit in the daily and hourly `OP:PMCR` report.

This error code may also print due to an OOS unit record in the plant database not being updated for more than 15 minutes. Upon a boot and every quarter hour (4:15, 4:30, 4:45, for example) pldmon audits the database to ensure that records for OOS units have been updated every 15 minutes. When the system boots, a copy of the plant database is copied from the disk into memory. If the database on disk has a timestamp more than 15 minutes older than the system clock at boot time, pldmon assumes that records for OOS units have not been updated for more than 15 minutes and the error will print out. The incore database is copied to disk once an hour on the hour. You should not see this error message again if you do not plan to boot before the top of the hour. If you do plan to boot before the top of the hour and do not want to see this error message, you can copy the incore database to disk by executing `/prc/pmdbcopy` from the UNIX® shell.

For error codes 8, 9, and 10 a problem exists with pldmon sending a message to pmcrman to collect data (pmcrcol). Copy the incore PMS database to disk via the `/prc/pmdbcopy` UNIX® shell command and manually run the scheduled hourly reports. If the error persists, seek technical assistance.

For error code 11, an unknown fault message (other than a message buffer audit fault) was found and removed from the buffer. If the error persists, seek technical assistance.

5. ALARMS

None. The output is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key
This message has an OMDB key of 212.

Input Message
`OP-PMCR`

ID . . . . . REPT-PMDBCOPY-A
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.11, R21.15 and R21.17
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `REPT PMDBCOPY ERROR` *a* [`ERRNO =` *b*]

[2] `REPT PMDBCOPY NO COPY`

[3] `REPT PMDBCOPY COMPLETED`

2. REASON FOR OUTPUT

To report the status of the Plant Measurements System (PMS) database copy program.

Format 1 is printed when errors are found.

Format 2 indicates that the PMS database audit program is conducting corrective action on the database and, therefore, the database will not be copied to disk.

Format 3 is printed if *-p* option is specified. As a default, the message is not printed at the end of the report.

3. VARIABLE FIELD DEFINITIONS

a = Error type. One of the following:

1 — failed plib function call
2 — could not attach to PMS database
3 — could not initialize lla_audit routines
4 — error detected by the lla_audit function
5 — error detected by the lla_audit function
6 — unknown return from lla_audit function
7 — could not get setid record from PMS database
8 — could not open secondary disk copy of PMS database
9 — could not write incore PMS database to secondary disk database
10 — could not release

11 — Request to audit the PMS database did not complete successfully. The incore database will not be copied.
12 — After the incore database was copied to disk, an audit on the disk database failed. (See additional errors.) The secondary disk database may be bad.
13 — The primary disk database does not exist. Attempt to move the secondary copy to primary failed. Run AUD:PMS 1.
14 — Attempt to switch primary and secondary disk databases failed. The primary may be bad. Run AUD:PMS 1.
16 — falloc failed to create a contiguous file for PMS disk database.
17 — makeseg failed to create a temporary segment for the incore database.

b = Number of errors detected by audit. Error types 2, 3, 7, 10 through 14, and 16, do not report an error number.

4. ACTION TO BE TAKEN

For Format 1, seek technical assistance.

For Formats 2 and 3, no action is needed.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key
This message has an OMDB key of 211.

Output Message
AUD-PMS

ID . . . . . REPT-PMDBCOPY-B
GENERIC . . . . . UNIX RTR R21.3, R21.19 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `REPT PMDBCOPY ERROR` *a* [`ERRNO =` *b*]

[2] `REPT PMDBCOPY NO COPY`

[3] `REPT PMDBCOPY COMPLETED`

2. REASON FOR OUTPUT

To report the status of the Plant Measurements System (PMS) database copy program.

Format 1 is printed when errors are found.

Format 2 indicates that the PMS database audit program is conducting corrective action on the database and, therefore, the database will not be copied to disk.

Format 3 is printed if *-p* option is specified. As a default, the message is not printed at the end of the report.

3. VARIABLE FIELD DEFINITIONS

a = Error type. One of the following:

1 — failed plib function call
2 — could not attach to PMS database
3 — could not initialize lla_audit routines
4 — error detected by the lla_audit function
5 — error detected by the lla_audit function
6 — unknown return from lla_audit function
7 — could not get setid record from PMS database
8 — could not open secondary disk copy of PMS database
9 — could not write incore PMS database to secondary disk database
10 — could not release

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11 — Request to audit the PMS database did not complete successfully. The incore database will not be copied.
12 — After the incore database was copied to disk, an audit on the disk database failed. (See additional errors.) The secondary disk database may be bad.
13 — The primary disk database does not exist. Attempt to move the secondary copy to primary failed. Run AUD:PMS 1.
14 — Attempt to switch primary and secondary disk databases failed. The primary may be bad. Run AUD:PMS 1.
16 — falloc failed to create a contiguous file for PMS disk database.
17 — makeseg failed to create a temporary segment for the incore database.
18 — Incore database has an incorrect filesize in the database header. The incore database will not be copied.

b = Number of errors detected by audit. Error types 2, 3, 7, 10 through 14, 16, and 18 do not report an error number.

4. ACTION TO BE TAKEN

For Format 1, seek technical assistance.

For Formats 2 and 3, no action is needed.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key
This message has an OMDB key of 211.

Output Message
AUD-PMS

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ID . . . . . REPT-PMGR,ERR-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT PMGR ERROR` *a b* [*c*] [*d*]

2. REASON FOR OUTPUT

To report process-manager (PMGR) related software errors. The errors are detected during the creation and termination of a supervisor or a kernel process or during a field update to a shared library.

The message identifies the type of problem encountered. There are two error types:

`Failure` — Causes the termination of the process under creation.

`Warning` — Notifies the user of the problem but does not terminate the process under creation.

3. VARIABLE FIELD DEFINITIONS

a = One of the following values:

`51` — Message type not recognized.
`53` — Library file does not exist.
`55` — Failure to load a kernel process because of insufficient memory.
`56` — All segment descriptor entries (SDEs) are allocated or there is no swap space left.
`57` — Unable to read a pfile or library file.
`58` — Segment too big for virtual address space available.
`59` — Cannot add a shared segment to the process.
`60` — Incarnation count too big for a process.
`62` — Cannot acquire a process control block (PCB) of a terminating process.
`63` — Process manager (PMGR) faulted, entered fault routine.
`64` — NUB faulted, entered fault routine.
`67` — Bad acknowledgment resulting from copyseg operating system trap (OST).
`68` — Pfile (LDP output) doesn't exist, or does not have correct magic number, or wrong supervisor or kernel mode.
`70` — Cannot open dump file specified in terminate message.
`71` — Unable to write out a segment of a process being dumped.
`72` — Cannot get capability for working directory.
`73` — Unable to close a file.
`75` — Cannot open or get segment name of device process.
`76` — Message from unauthorized process.
`77` — Segment index overlay warning.
`78` — Unable to lock shared library in memory.

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80 — Process termination has already been completed by the process administration process termination audit.
81 — Pfile requests protected application segment (PAS); no PAS specified on sgen1 form.
82 — Could not duplicate pfile capabilities for the NUB.
83 — Could not create process because system is in disk independent operation.
84 — Shared segment index specifies different physical module than that specified by segid.
85 — Invalid PCB index.
86 — Pfile does not specify PCB segment.
87 — An expected acknowledgement message was not received within the five-minute wait interval.

If *a* = 51:

b = Process number of the process sending an unknown message fielded by the process manager mainline routine, in decimal notation.

Or one of the following messages:

CREATDFILE - Pathname is not specified to create a dump file. Check the pathname in termhdr.h message.

INIT - Process manager received a second initialization message.

NUB START - Could not recognize the type of message in START routine. Check the type of message dispatched to the NUB.

If *b* = numeric or NUB START:

c = Type of message received by the PMGR.

If *b* = INIT:

c = Process number of message sender.

If *b* = CREATDFILE:

c = User-supplied pathname in the termhdr.h message, or NULL.

If *a* = 53:

b = One of the following messages:

LMAKSEG OPEN- Could not open library file for read. Check the pathname. Could be an Input / Output failure.

LMAKSEG MAGIC- Shared library file had incorrect magic number. Check the path name; could be an Input / Output failure.

c = Pathname of the library file from pheader file.

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If *a* = 54:

b = One of the following failure messages:

MAKEKP - Failed to create a DCTE entry during kernel process creation. Check the DCTE table; it could be full.

MAKSUPER - Failed to create a DCTE entry during creation of supervisor process. Check the DCTE entry table.

c = Process pathname; process will not be created.

If *a* = 55:

b = MAKSEG - Failed to lock the requested segment in the memory.

c = Process pathname; process will not be created.

If *a* = 56:

b = One of the following failure messages:

CDUMP ACTIVSEG - Cannot find the segment in the segment table. Either the segment index is bad, or the segment points to a null segment. Core dump will not be created.

CDUMP ALOCSEG - PMGR requested the memory manager to allocate a segment. Memory manager returned failure condition. Either there is no space left on the disk to create this segment, or the SDE table is full. Core dump will not be created.

FILCOPY OPENADD - Segment ID is invalid or unallocated, or the segment index in segment flags of the segment list is out of range. Core dump will not be created.

INMEM ACTIVSEG - Same as MAKPRC ACTIVSEG, except error occurred during field update of shared library.

INMEM ALOCSEG - Same as MAKPRC ALOCSEG, except error occurred during field update of shared library.

MAKPRC ACTIVSEG - Cannot find the segment in the segment table. Segment points to a null segment: failed to make the segment nonswap process. Segment index out of range.

MAKPRC ALOCSEG - PMGR made an alocseg ost call to the memory manager. Call returned with failure condition. Either there is no space left on the swap area, or the SDE table is full. Check the SDE table entries and the swap space.

NDUP ACTIVSEG - See MAKPRC ACTIVSEG.

NDUP ADDSEG - See MAKPRC ACTIVSEG.

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NDUP ALOCSEG - See MAKPRC ALOCSEG.

SEGADD ALOCSEG - See MAKPRC ALOCSEG.

SEGADD ALOCSEGA - See MAKPRC ALOCSEG.

SEGREAD ACTIVSEG - See MAKPRC ACTIVSEG.

SEGREAD SHARE - Sgetmodule() failed on a segment shared via "share" ldp option.

If *b* = SEGADD ALOCSEG:

c = Segment name.

If *b* = CDUMP ALOCSEG or CDUMP ACTIVSEG:

c = Process number; process is terminated.

If *b* = MAKPRC ALOCSEG or MAKPRC ACTIVSEG:

c = Process pathname; process will not be created.

If *b* = INMEM ALOCSEG or INMEM ACTIVSEG:

c = Library pathname, library will not be locked.

Otherwise,

c = NULL.

If *a* = 57:

b = One of the following failure messages:

MAKPRC - Failed to read pfile header.

LMAKSEG - Failed to read library file from the disk.

SEGREAD - Failed to read a segment from the disk.

INMEM - Failed to read library file header from the disk.

If *b* = MAKPRC:

c = Process pathname; process will not be created.

If *b* = LMAKSEG:

c = Library pathname; process will not be created.

If *b* = INMEM:

c = Library pathname; process will not be locked.

Otherwise,

c = NULL.

If *a* = 58:

b = One of the following failure messages:

DOKPSEGS - In UNIX® RTR R1.5, process may need more than the 128 segments allowed by the system. In UNIX® RTR R6, the process may need more than the number of segments specified in the process' specification file (minimum and default: 50; maximum: 511).

NUBDOSPSEGS - In UNIX® RTR R1.5, process may need more than the 128 segments allowed by the system. In UNIX® RTR R6, the process may need more than the number of segments specified in the process' specification file (minimum and default: 50; maximum: 511). This error is from the NUB process.

NUBMAKSEG - In UNIX® RTR R1.5, failed to find free segment list entry, needs more than 128 segments to create the process. In UNIX® RTR R6, the process may need more than the number of segments specified in the process' specification file (minimum and default: 50; maximum: 511). Check segment map in the pheader file. This error is from the NUB process.

c = Process pathname; process will not be created.

If *a* = 59:

b = One of the following failure messages:

CHKSHARE DUP - Segment name is duplicated in the pheader file.

CHKSHARE EMM - extended main memory is enabled, and segment name is requested for wrong physical module.

CHKSHARE NOMATCH - Segment name does not match in the pcreate message and pheader file.

INIT ECDDATA - Failed to open equipment configuration database data segment.

INIT ECDLPATCH - Failed to open equipment configuration database patch segment.

INIT ECDLTEXT - Failed to open equipment configuration database text segment.

INIT KMSG - Failed to open kernel message buffer segment.

INIT KSTK - Failed to open kernel stack segment.

INIT PAS0- Failed to open protected application segment.

INIT PAS1- Failed to open protected application segment upper module.

INIT PLMDATA - Failed to open plant measurement library data segment.

INIT PLMPATCH - Failed to open plant measurement library patch

segment.

`INIT PLMTEXT` - Failed to open plant measurement library text segment.

`NUB DOSPSEGS` - Segment name does not match in the pcreate message and pheader.

`NUB SHSYSEG OPENSEG` - See `SHSYSEG OPENSEG`. This error is from the NUB process.

`SEGADD FNAME` - Failed to get the 32-bit segment name from file manager.

`SEGADD SHARE` - Failed to increase the segment user count.

`SHSYSEG OPENSEG` - Segment name does not match in the pcreate message and pheader.

c = Segment name.

If *b* = `CHKSHARE: NOMATCH` or `CHKSHARE DUP`

c = Segment name which does not match or is duplicated.

Otherwise,

c = Null or process pathname; process will not be created.

If *a* = `60`:

b = Failure message:

`MAKPRC` - User count for this process is greater than allowed count (255).

c = Process pathname; process will not be created.

If *a* = `62`:

b = One of the following messages:

`MAKDUMP KERNEL` - Failed to add kernel process PCB segment to the PMGR address space.

`MAKDUMP SUPER` - Failed to add user process PCB segment to PMGR address space.

c = The process number of process being dumped, core dump will not be created.

If *a* = `63` or `64`:

b = Eight digit hexadecimal number. The two high order digits are the fault code. The remaining six digits, if present, are the program address at fault. If they are missing, the fault was externally generated.

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c = Process or library pathname; process will not be created or library will not be locked.

If *a* = `67`:

b = One of the following failure messages:

`MAKSUPER PFILE` - Failed to copy pfile header to the NUB's address space.

`NDUP COPYSEG` - Failed to copy NUB segment into NUB address space.

`NDUP FWAIT` - Received a failure state after copyseg operation.

c = Process pathname or NULL; process will not be created.

If *a* = `68`:

b = Process number, in decimal notation. The pfile specified in a pcreate request by process *b* could not be opened.

Or one of the following messages:

`INMEM BADMAGIC` - The magic number in the library header was incorrect.

`INMEM OPEN` - Library could not be opened for reading.

`MAKPRC BADMAGIC` - Magic number in the pheader file does not match with kmagic or smagic number. Check the pheader file or reload with proper specification.

If *b* = `the process number`:

c = Status returned from file manager.

d = Pathname of the pfile which could not be opened.

If *b* = `MAKPRC BADMAGIC`:

c = Process pathname; process will not be created.

If *b* = `INMEM OPEN` or `INMEM BADMAGIC`:

c = Library pathname; library will not be locked.

If *a* = `70`:

b = `CREATDFILE` - Failed to create a dump file with the given pathname.

c = Pathname.

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If *a* = 71:

b = One of the following warning messages:

CDUMP - Failed to write out dump file header.

FILCOPY - Failed to write a segment to dump file.

c = Process number of the terminating process or NULL.

If *a* = 72:

b = Process number, in decimal notation. The capability to access the working directory of a pcreate pathname specified by process *b* could not be acquired.

Or one of the following messages:

CREATDFILE - Failed to create a file for dumping a terminating process. This is a warning message.

INIT - The capability to access the root directory failed.

INMEM - The capability to access the working directory of library file failed.

If *b* = numeric:

c = Working directory pathname of the process which will not be created.

If *b* = CREATDFILE:

c = Dump file pathname.

If *b* = INMEM:

c = Library pathname.

If *b* = INIT:

c = *i*.

If *a* = 73:

b = FMCLOSE - PMGR sent a message to the file manager to close a file. The file manager returned failure.

c = NULL.

If *a* = 76:

b = START MSTERM - Terminate message is not from scheduler.

c = Process number of the process that sent the message.

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If *a* = 77:

b = Segment index, in decimal notation. The segment being added to the address space of a kernel process overlaid a segment index already in use. The resultant process will have addressability into the second segment from code referencing both the first request and second request. This will most typically occur with the protected application segment. This message should be viewed seriously as this is a potentially disastrous situation.

c = Pathname of the kernel process containing the segment index overlay.

If *a* = 78:

b = One of the following messages:

`INMEM LIBTABLE` - internal shared library table is full.

`INMEM NOADD` - The process manager was unable to add library segment to its address space.

`INMEM NOHOLE` - The process manager has no available entries in its segment list.

`INMEM NOTABLE` - The process manager has no available entries in its internal table that it uses to lock library segments.

`INMEM OLDAGE` - A shared library has been undergoing an update for over a week. Field update has probably forgotten about it.

`UNINMEM - -` The process manager received a message to unlock a shared library but the library was not locked.

c = Library pathname.

If *a* = 81:

b = `DOKPSEGS` - The pfile requested PAS, however no PAS is in the system.

c = Process pathname; process will not be created.

If *a* = 80:

b = `OLD MSTERM` - The process termination has already occurred due to the process administration process termination audit.

c = Process number.

If *a* = 82:

b = `MAKSUPER` - Could not duplicate pfile capabilities for the NUB.

c = Process pathname; process will not be created.

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If *a* = 83:

b = MAKSUPER - pstart() failed because system is in disk independent operation.

c = Process pathname; process will not be created.

If *a* = 84:

b = SEGGADD MODULE - shared segment index does not specify same physical module as that specified by segid.

c = Process pathname; process will not be created.

If *a* = 85:

b = PCB INDEX - Invalid pcb index.

c = Process pathname; process will not be created.

If *a* = 86:

b = Kernel process pathname; process will not be created.

If *a* = 87:

b = RCVACK LOST - An expected acknowledgement was lost

c = Null.

4. ACTION TO BE TAKEN

Use the Error / Action Table to determine which of the following actions should be taken.

1. Call application system support.
2. Application system support should call UNIX® RTR system support.
3. Check the displayed pathname for accuracy.
4. Possible system generation (SYSGEN) specification change required.
5. Possible process specification file error.
6. Enter OP:STATUS;PROCESS,ALL for further documentation of problem.

Error / Action Table

ERROR / MESSAGE	Action To Be Taken 1	2	3	4	5	6
51						
process number	X					
NUB START	X	X				
INIT	X	X				
CREATDFILE	X					
53 ALL MESSAGES	X		X			
54 ALL MESSAGES	X			X		
55 ALL MESSAGES	X	X				
56 ALL MESSAGES	X	X		X		
57 ALL MESSAGES	X					
58 ALL MESSAGES	X					
59						
NUB DOSPSEGS	X	X				
CHKSHARE NOMATCH	X				X	
CHKSHARE EMM	X				X	
CHKSHARE DUP	X				X	
SHSYSEG OPENSEG	X				X	
NUB SHSYSEG OPENSEG	X				X	
SEGADD SHARE	X	X				
SEGADD FNAME	X	X				
ALL OTHER MESSAGES	X	X				
60 ALL MESSAGES	X			X	X	
62 ALL MESSAGES	X	X				
63 ALL MESSAGES	X	X				
64 ALL MESSAGES	X	X				
67 ALL MESSAGES	X	X				
68 ALL MESSAGES	X		X		X	
70 ALL MESSAGES	X		X			

(continued)

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Error / Action Table *(continued)*

ERROR / MESSAGE	Action To Be Taken 1	2	3	4	5	6
71 ALL MESSAGES	X	X				
72 ALL MESSAGES	X		X			
73 ALL MESSAGES	X					
76 ALL MESSAGES	X					X
77 ALL MESSAGES	X				X	
78						
INMEM NOHOLE	X	X				
INMEM NOTABLE	X	X				
INMEM NOADD	X		X	X		
UNINMEM	X		X			
INMEM LIBTABLE	X	X				
80 ALL MESSAGES	X					
81 ALL MESSAGES				X	X	
82 ALL MESSAGES	X					
83 ALL MESSAGES	X					
84 ALL MESSAGES					X	
85 ALL MESSAGES					X	
86 ALL MESSAGES	X					
87 ALL MESSAGES	X					

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys

Error 81 has an OMDB key of 351.
Errors 53-55, 57-60, 67-70, 73, 78,
82, 84, and 85 have an OMDB key of 354.
Errors 86 and 87 have an OMDB key of 355.
Errors 63 and 64 have an OMDB key of 356.
Errors 51, 62, 76, and 80 have an OMDB key of 358.
Errors 56 and 71 have an OMDB key of 359.
Errors 72 and 77 have an OMDB key of 360.

Input Messages

```
EXC:E;PROC
EXC:E;UPROC
OP:ST;PROC
```

Output Messages

```
EXC-E,PROC
EXC-E,UPROC
OP-ST,PROC
```

Practice 254-341-110 *DMERT Kernel and Basic Services Software Subsystem Description 3B20D Processor*

ID . . . . . REPT-PMGR,ERR-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT PMGR ERROR` *a b* [*c*] [*d*]

2. REASON FOR OUTPUT

To report process manager (PMGR) related software errors. The errors are detected during the creation and termination of a supervisor or a kernel process or during a field update to a shared library.

The message identifies the type of problem encountered. There are two error types:

Failure — Causes the termination of the process under creation.

Warning — Notifies the user of the problem but does not terminate the process under creation.

3. VARIABLE FIELD DEFINITIONS

a = One of the following values:

`51` — Message type not recognized.

`53` — Library file does not exist.

`55` — Failure to load a kernel process because of insufficient memory.

`56` — All segment descriptor entries (SDEs) are allocated or there is no swap space left.

`57` — Unable to read a pfile or library file.

`58` — Segment too big for virtual address space available.

`59` — Cannot add a shared segment to the process.

`60` — Incarnation count too big for a process.

`62` — Cannot acquire a process control block (PCB) of a terminating process.

`63` — Process manager (PMGR) faulted, entered fault routine.

`64` — NUB faulted, entered fault routine.

`67` — Bad acknowledgment resulting from copyseg operating system trap (OST).

`68` — Pfile (LDP output) doesn't exist, or does not have correct magic number, or wrong supervisor or kernel mode.

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70 — Cannot open dump file specified in terminate message.

71 — Unable to write out a segment of a process being dumped.

72 — Cannot get capability for working directory.

73 — Unable to close a file.

75 — Cannot open or get segment name of device process.

76 — Message from unauthorized process.

77 — Segment index overlay warning.

78 — Unable to lock shared library in memory.

80 — Process termination has already been completed by the process administration process termination audit.

81 — Pfile requests protected application segment (PAS); no PAS specified on sgen1 form.

82 — Could not duplicate pfile capabilities for the NUB.

83 — Could not create process because system is in disk independent operation.

84 — Shared segment index specifies different physical module than that specified by segid.

85 — Invalid PCB index.

86 — Pfile does not specify PCB segment.

87 — An expected acknowledgement message was not received within the five-minute wait interval.

88 — Pfile specifies a segment whose virtual address is beyond the range supported on this hardware.

If *a* = 51:

b = Process number of the process sending an unknown message fielded by the process manager mainline routine, in decimal notation.

Or one of the following messages:

CREATDFILE - Pathname is not specified to create a dump file. Check the pathname in termhdr.h message.

INIT - Process manager received a second initialization message.

NUB START - Could not recognize the type of message in START routine. Check the type of message dispatched to the NUB.

If *b* = numeric or NUB START:

c = Type of message received by the PMGR.

If *b* = `INIT:`

c = Process number of message sender.

If *b* = `CREATDFILE:`

c = User-supplied pathname in the `termhdr.h` message, or `NULL`.

If *a* = `53:`

b = One of the following messages:

`LMAKSEG OPEN`- Could not open library file for read. Check the pathname. Could be an Input/Output failure.

`LMAKSEG MAGIC`- Shared library file had incorrect magic number. Check the path name; could be an Input/Output failure.

c = Pathname of the library file from pheader file.

If *a* = `54:`

b = One of the following failure messages:

`MAKEKP` - Failed to create a DCTE entry during kernel process creation. Check the DCTE table; it could be full.

`MAKSUPER` - Failed to create a DCTE entry during creation of supervisor process. Check the DCTE entry table.

c = Process pathname; process will not be created.

If *a* = `55:`

b = `MAKSEG` - Failed to lock the requested segment in the memory.

c = Process pathname; process will not be created.

If *a* = `56:`

b = One of the following failure messages:

`CDUMP ACTIVSEG` - Cannot find the segment in the segment table. Either the segment index is bad, or the segment points to a null segment. Core dump will not be created.

`CDUMP ALOCSEG` - `PMGR` requested the memory manager to allocate a segment. Memory manager returned failure condition. Either there is no space left on the disk to create this segment, or the SDE table is full. Core dump will not be created.

`FILCOPY OPENADD` - Segment ID is invalid or unallocated, or the segment index in segment flags of the segment list is out of range. Core dump will not be created.

`INMEM ACTIVSEG` - Same as `MAKPRC ACTIVSEG`, except error occurred during field update of shared library.

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INMEM ALOCSEG - Same as MAKPRC ALOCSEG, except error occurred during field update of shared library.

MAKPRC ACTIVSEG - Cannot find the segment in the segment table. Segment points to a null segment: failed to make the segment nonswap process. Segment index out of range.

MAKPRC ALOCSEG - PMGR made an alocseg ost call to the memory manager. Call returned with failure condition. Either there is no space left on the swap area, or the SDE table is full. Check the SDE table entries and the swap space.

NDUP ACTIVSEG - See MAKPRC ACTIVSEG.

NDUP ADDSEG - See MAKPRC ACTIVSEG.

NDUP ALOCSEG - See MAKPRC ALOCSEG.

SEGADD ALOCSEG - See MAKPRC ALOCSEG.

SEGADD ALOCSEGA - See MAKPRC ALOCSEG.

SEGREAD ACTIVSEG - See MAKPRC ACTIVSEG.

SEGREAD SHARE - Sgetmodule() failed on a segment shared via "share" ldp option.

If *b* = SEGADD ALOCSEG:

c = Segment name.

If *b* = CDUMP ALOCSEG or CDUMP ACTIVSEG:

c = Process number; process is terminated.

If *b* = MAKPRC ALOCSEG or MAKPRC ACTIVSEG:

c = Process pathname; process will not be created.

If *b* = INMEM ALOCSEG or INMEM ACTIVSEG:

c = Library pathname, library will not be locked.

Otherwise,

c = NULL.

If *a* = 57:

b = One of the following failure messages:

MAKPRC - Failed to read pfile header.

LMAKSEG - Failed to read library file from the disk.

SEGREAD - Failed to read a segment from the disk.

INMEM - Failed to read library file header from the disk.

If *b* = MAKPRC:

c = Process pathname; process will not be created.

If *b* = LMAKSEG:

c = Library pathname; process will not be created.

If *b* = INMEM:

c = Library pathname; process will not be locked.

Otherwise,

c = NULL.

If *a* = 58:

b = One of the following failure messages:

DOKPSEGS - The process may need more than the number of segments specified in the process' specification file (minimum and default: 50; maximum: 511).

NUBDOSPSEGS - The process may need more than the number of segments specified in the process' specification file (minimum and default: 50; maximum: 511). This error is from the NUB process.

NUBMAKSEG - The process may need more than the number of segments specified in the process' specification file (minimum and default: 50; maximum: 511). Check segment map in the pheader file. This error is from the NUB process.

c = Process pathname; process will not be created.

If *a* = 59:

b = One of the following failure messages:

CHKSHARE DUP - Segment name is duplicated in the pheader file.

CHKSHARE EMM - extended main memory is enabled, and segment name is requested for wrong physical module.

CHKSHARE NOMATCH - Segment name does not match in the pcreate message and pheader file.

INIT ECDDATA - Failed to open equipment configuration database data segment.

INIT ECDLPATCH - Failed to open equipment configuration database patch segment.

INIT ECDLTEXT - Failed to open equipment configuration database text segment.

INIT KMSG - Failed to open kernel message buffer segment.

INIT KSTK - Failed to open kernel stack segment.

INIT PAS0 - Failed to open protected application segment.

INIT PAS1 - Failed to open protected application segment upper module.

INIT PLMDATA - Failed to open plant measurement library data segment.

INIT PLMPATCH - Failed to open plant measurement library patch segment.

INIT PLMTEXT - Failed to open plant measurement library text segment.

NUB DOSPSEGS - Segment name does not match in the pcreate message and pheader.

NUB SHSYSEG OPENSEG - See SHSYSEG OPENSEG. This error is from the NUB process.

SEGADD FNAME - Failed to get the 32-bit segment name from file manager.

SEGADD SHARE - Failed to increase the segment user count.

SHSYSEG OPENSEG - Segment name does not match in the pcreate message and pheader.

c = Segment name.

If *b* = CHKSHARE: NOMATCH or CHKSHARE DUP,

c = Segment name which does not match or is duplicated.

Otherwise,

c = NULL or process pathname; process will not be created.

If *a* = 60:

b = Failure message:

MAKPRC - User count for this process is greater than allowed count (255).

c = Process pathname; process will not be created.

If *a* = `62:`

b = One of the following messages:

`MAKDUMP KERNEL` - Failed to add kernel process PCB segment to the PMGR address space.

`MAKDUMP SUPER` - Failed to add user process PCB segment to PMGR address space.

c = The process number of process being dumped, core dump will not be created.

If *a* = `63` or `64:`

b = Eight digit hexadecimal number. The two high order digits are the fault code. The remaining six digits, if present, are the program address at fault. If they are missing, the fault was externally generated.

c = Process or library pathname; process will not be created or library will not be locked.

If *a* = `67:`

b = One of the following failure messages:

`MAKSUPER PFILE` - Failed to copy pfile header to the `NUB`'s address space.

`NDUP COPYSEG` - Failed to copy `NUB` segment into `NUB` address space.

`NDUP FWAIT` - Received a failure state after copyseg operation.

c = Process pathname or `NULL`; process will not be created.

If *a* = `68:`

b = Process number, in decimal notation. The pfile specified in a pcreate request by process *b* could not be opened.

Or one of the following messages:

`INMEM BADMAGIC` - The magic number in the library header was incorrect.

`INMEM OPEN` - Library could not be opened for reading.

`MAKPRC BADMAGIC` - Magic number in the pheader file does not match with kmagic or smagic number. Check the pheader file or reload with proper specification.

If *b* = the process number:

c = Status returned from file manager.

d = Pathname of the pfile which could not be opened.

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If *b* = `MAKPRC BADMAGIC:`

c = Process pathname; process will not be created.

If *b* = `INMEM OPEN` or `INMEM BADMAGIC:`

c = Library pathname; library will not be locked.

If *a* = `70:`

b = `CREATDFILE` - Failed to create a dump file with the given pathname.

c = Pathname.

If *a* = `71:`

b = One of the following warning messages:

`CDUMP` - Failed to write out dump file header.

`FILCOPY` - Failed to write a segment to dump file.

c = Process number of the terminating process or `NULL`.

If *a* = `72:`

b = Process number, in decimal notation. The capability to access the working directory of a pcreate pathname specified by process *b* could not be acquired.

Or one of the following messages:

`CREATDFILE` - Failed to create a file for dumping a terminating process. This is a warning message.

`INIT` - The capability to access the root directory failed.

`INMEM` - The capability to access the working directory of library file failed.

If *b* = numeric:

c = Working directory pathname of the process which will not be created.

If *b* = `CREATDFILE:`

c = Dump file pathname.

If *b* = `INMEM:`

c = Library pathname.

If *b* = `INIT:`

c = *i.*

SEE PROPRIETARY NOTICE ON COVER PAGE

If *a* = 73:

b = FMCLOSE - PMGR sent a message to the file manager to close a file. The file manager returned failure.

c = NULL.

If *a* = 76:

b = START MSTERM - Terminate message is not from scheduler.

c = Process number of the process that sent the message.

If *a* = 77:

b = Segment index, in decimal notation. The segment being added to the address space of a kernel process overlaid a segment index already in use. The resultant process will have addressability into the second segment from code referencing both the first request and second request. This will most typically occur with the protected application segment. This message should be viewed seriously as this is a potentially disastrous situation.

c = Pathname of the kernel process containing the segment index overlay.

If *a* = 78:

b = One of the following messages:

INMEM LIBTABLE - internal shared library table is full.

INMEM NOADD - The process manager was unable to add library segment to its address space.

INMEM NOHOLE - The process manager has no available entries in its segment list.

INMEM NOTABLE - The process manager has no available entries in its internal table that it uses to lock library segments.

INMEM OLDAGE - A shared library has been undergoing an update for over a week. Field update has probably forgotten about it.

UNINMEM - - The process manager received a message to unlock a shared library but the library was not locked.

c = Library pathname.

If *a* = 81:

b = DOKPSEGS - The pfile requested PAS, however no PAS is in the system.

c = Process pathname; process will not be created.

SEE PROPRIETARY NOTICE ON COVER PAGE

If *a* = 80:

b = OLD MSTERM - The process termination has already occurred due to the process administration process termination audit.

c = Process number.

If *a* = 82:

b = MAKSUPER - Could not duplicate pfile capabilities for the NUB.

c = Process pathname; process will not be created.

If *a* = 83:

b = MAKSUPER - pstart() failed because system is in disk independent operation.

c = Process pathname; process will not be created.

If *a* = 84:

b = SEGGADD MODULE - shared segment index does not specify same physical module as that specified by segid.

c = Process pathname; process will not be created.

If *a* = 85:

b = PCB INDEX - Invalid pcb index.

c = Process pathname; process will not be created.

If *a* = 86:

b = Kernel process pathname; process will not be created.

If *a* = 87:

b = RCVACK LOST - An expected acknowledgement was lost

c = NULL.

If *a* = 88:

b = One of the following messages:

DOKPSEGS - error occurred during kernel process creation.
NUBDOSPSEGS - error occurred during supervisor process creation. This message is from the BUB process.

c = Process pathname; process will not be created.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

Use the Error / Action Table to determine which of the following actions should be taken.

1. Call application system support.
2. Application system support should call UNIX® RTR system support.
3. Check the displayed pathname for accuracy.
4. Possible system generation (SYSGEN) specification change required.
5. Possible process specification file error.
6. Enter `OP:STATUS;PROCESS,ALL` for further documentation of problem.

Error / Action Table

ERROR / MESSAGE	Action To Be Taken 1	2	3	4	5	6
51						
process number	X					
NUB START	X	X				
INIT	X	X				
CREATDFILE	X					
53 ALL MESSAGES	X		X			
54 ALL MESSAGES	X			X		
55 ALL MESSAGES	X	X				
56 ALL MESSAGES	X	X		X		
57 ALL MESSAGES	X					
58 ALL MESSAGES	X					
59						
NUB DOSPSEGS	X	X				
CHKSHARE NOMATCH	X				X	
CHKSHARE EMM	X				X	
CHKSHARE DUP	X				X	
SHSYSEG OPENSEG	X				X	
NUB SHSYSEG OPENSEG	X				X	
SEGADD SHARE	X	X				
SEGADD FNAME	X	X				
ALL OTHER MESSAGES	X	X				
60 ALL MESSAGES	X			X	X	
62 ALL MESSAGES	X	X				

SEE PROPRIETARY NOTICE ON COVER PAGE

Error / Action Table *(continued)*

ERROR / MESSAGE	Action To Be Taken 1	2	3	4	5	6
63 ALL MESSAGES	X	X				
64 ALL MESSAGES	X	X				
67 ALL MESSAGES	X	X				
68 ALL MESSAGES	X		X		X	
70 ALL MESSAGES	X		X			
71 ALL MESSAGES	X	X				
72 ALL MESSAGES	X		X			
73 ALL MESSAGES	X					
76 ALL MESSAGES	X					X
77 ALL MESSAGES	X				X	
78						
INMEM NOHOLE	X	X				
INMEM NOTABLE	X	X				
INMEM NOADD	X		X	X		
UNINMEM	X		X			
INMEM LIBTABLE	X	X				
80 ALL MESSAGES	X					
81 ALL MESSAGES				X	X	
82 ALL MESSAGES	X					
83 ALL MESSAGES	X					
84 ALL MESSAGES					X	

Error / Action Table *(continued)*

	Action To Be Taken					
ERROR / MESSAGE	1	2	3	4	5	6
85 ALL MESSAGES					X	
86 ALL MESSAGES	X					
87 ALL MESSAGES	X					
88 ALL MESSAGES	X				X	

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Error 81 has an OMDB key of 351.
Errors 53-55, 57-60, 67-70, 73, 78,
82, 84, 85, and 88 have an OMDB key of 354.
Errors 86 and 87 have an OMDB key of 355.
Errors 63 and 64 have an OMDB key of 356.
Errors 51, 62, 76, and 80 have an OMDB key of 358.
Errors 56 and 71 have an OMDB key of 359.
Errors 72 and 77 have an OMDB key of 360.

Input Messages
```
EXC:E;PROC
EXC:E;UPROC
OP:ST;PROC
```

Output Messages
```
EXC-E,PROC
EXC-E,UPROC
OP-ST,PROC
```

Practice 254-341-110 *DMERT Kernel and Basic Services Software Subsystem Description 3B20D Processor*

ID . . . . . REPT-PMSLOT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . PMORT

1. FORMAT

```
REPT PMSLOT
```

2. REASON FOR OUTPUT

Precedes the post-mortem dump printout. For a complete description of the fields found in the post-mortem dump, see the Error Analysis section of the *System Maintenance Manual.*

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Refer to the Error Analysis section of the *System Maintenance Manual.*

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
This message has OMDB keys of 401 and 402 (3B20D only) and 686 and 687 (3B21D only).

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-POWER
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `REPT POWER {RESTORED|REMOVED} a b [c d]`

[2] `REPT POWER FAULT a b [c d]`

[3] `REPT POWER DISTRIBUTION FRAME e f ALARM`

2. REASON FOR OUTPUT

Format 1 indicates that a unit has been powered up or powered down by a manual request at a unit's power switch. The removal of power from a unit may be the result of a normal power down, a manual override power down, or the occurrence of faults where power is removed, such as a blown fuse.

Format 2 indicates that a power fault has been detected by scanning the unit's power switch (ABB1).

Format 3 indicates the occurrence of a major or minor alarm on the power distribution frame as detected by a scan point on the unit alarm circuit.

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

c = Subunit name.

d = Subunit number.

e = Identification number (0-99999). This number is arbitrary and is retrieved from the logical group name in the scsdbody form found in the equipment configuration database (ECD). If no number identification is in the group name, no number will be output.

f = Type of alarm:

MAJOR - Service is interrupted due to a power problem on another frame which resulted in a feeder fuse being blown on the power distribution frame.

MINOR - A local fuse on the power distribution frame has blown, but service is not interrupted.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

For Format 1, take no action, unless power removed. Check for blown fuses and take appropriate action to restore power.

For Format 2, establish and repair the cause of the fault. Check the status of alarm LEDs on unit, diagnose, and repair.

For Format 3, if a MAJOR alarm, determine the cause by looking at the accompanying messages. Fix the problem and replace the necessary output fuses on the power distribution frame. If MINOR alarm, replace fuses on the power distribution frame charging or filtering circuits.

5. ALARMS

None. This automatically-generated report is for information only.

Minor alarm. Take action as indicated in the report.

Major alarm. May not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 139.
Formats 2 and 3 have OMDB keys of 141 for MINOR alarm and 142 for MAJOR alarm.

Practice 254-301-020 *Power Systems Description and Theory of Operation 3B20D Model 1 Processor*

Practice 254-301-800 *Emergency Action Facilities Description 3B20D Model 1 Computer*

http://ppd.web.lucent.com/platforms/RTR/ *UNIX® RTR Operating System Recent Change and Verify User's Guide Lucent Technologies 3B20D Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-PREPHASE
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT ERRPORT PREPHASE MESSAGE
a
```

2. REASON FOR OUTPUT

To report that the error logging process, ERRPORT, has initialized after a phase and has found an output message request made before the phase.

3. VARIABLE FIELD DEFINITIONS

a = The text of the message requested to be output before the last phase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-PRIV,INSTRCT
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT PRIVILEGED INSTRUCTION VIOLATION X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e


            SAVE STATE
PA: gggggggg     PSW: hhhhhhhh     PSBR: iiiiiii     SSBR: jjjjjjj


                          GENERAL REGISTERS
 0: kkkkkkkk       1: kkkkkkkk       2: kkkkkkkk       3: kkkkkkkk
 4: kkkkkkkk       5: kkkkkkkk       6: kkkkkkkk       7: kkkkkkkk
 8: kkkkkkkk       9: kkkkkkkk       A: kkkkkkkk       B: kkkkkkkk
 C: kkkkkkkk       D: kkkkkkkk       E: kkkkkkkk       F: kkkkkkkk
UTILITY ID: lllllll                PROCESS NUMBER: mmmmmmmm

REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

The program tried to execute one of the special instructions without a corresponding privilege bit set in the processor status word (PSW).

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

g = The program address at the time of initialization (in hexadecimal). For software requested initializations this is the address of the PHASE OST and NOT the address where the problem was detected.

h = The processor status word (in hexadecimal). Among the information it contains are the execution level and the processor mode, i.e., kernel mode, kernel process, supervisor process, or user process. See *System Maintenance Manual*, Appendix P.

i = The contents of the primary segment base register (in hexadecimal).

SEE PROPRIETARY NOTICE ON COVER PAGE

j = The contents of the secondary segment base register (in hexadecimal).

k = The contents of the sixteen general purpose registers (in hexadecimal).

R9: argument pointer
RA: frame pointer
RB: stack pointer

l = Process utility id (in hexadecimal). See *System Maintenance Manual*, Process / Problem Table.

m = Process number (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Forward the software log entry information to your technical assistance organization.

5. ALARMS

None.

6. REFERENCES

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-PROTECT,VLTN
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT PROTECTION VIOLATION X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e


            SAVE STATE
PA: gggggggg     PSW: hhhhhhhh     PSBR: iiiiiii     SSBR: jjjjjjj


                          GENERAL REGISTERS
 0: kkkkkkkk      1: kkkkkkkk      2: kkkkkkkk      3: kkkkkkkk
 4: kkkkkkkk      5: kkkkkkkk      6: kkkkkkkk      7: kkkkkkkk
 8: kkkkkkkk      9: kkkkkkkk      A: kkkkkkkk      B: kkkkkkkk
 C: kkkkkkkk      D: kkkkkkkk      E: kkkkkkkk      F: kkkkkkkk
UTILITY ID: lllllll               PROCESS NUMBER: mmmmmmmm
STORE ADDRESS REGISTER:  nnnnnnnn
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

A program tried to execute from a segment that did not have execute permission or tried to write into a segment that did not have write permission.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

g = The program address at the time of initialization (in hexadecimal). For software requested initializations this is the address of the PHASE OST and NOT the address where the problem was detected.

h = The processor status word (in hexadecimal). Among the information it contains are the execution level and the processor mode, i.e., kernel mode, kernel process, supervisor process, or user process. See *System Maintenance Manual*, Appendix P.

i = The contents of the primary segment base register (in hexadecimal).

SEE PROPRIETARY NOTICE ON COVER PAGE

j = The contents of the secondary segment base register (in hexadecimal).

k = The contents of the sixteen general purpose registers (in hexadecimal).

R9: argument pointer
RA: frame pointer
RB: stack pointer

l = Process utility id (in hexadecimal). See *System Maintenance Manual*, Process / Problem Table.

m = Process number (in hexadecimal).

n = Contents of the store address register (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Forward the software log entry information to your technical assistance organization.

5. ALARMS

None.

6. REFERENCES

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-PRTY-DVRT
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT PARITY DIVERT ERROR X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e


            SAVE STATE
PA: gggggggg     PSW: hhhhhhhh     PSBR: iiiiiii     SSBR: jjjjjjj


                          GENERAL REGISTERS
 0: kkkkkkkk       1: kkkkkkkk       2: kkkkkkkk       3: kkkkkkkk
 4: kkkkkkkk       5: kkkkkkkk       6: kkkkkkkk       7: kkkkkkkk
 8: kkkkkkkk       9: kkkkkkkk       A: kkkkkkkk       B: kkkkkkkk
 C: kkkkkkkk       D: kkkkkkkk       E: kkkkkkkk       F: kkkkkkkk
UTILITY ID: lllllll                PROCESS NUMBER: mmmmmmmm
n
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

To indicate that the named unit returned a word with bad parity.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

g = The program address at the time of initialization (in hexadecimal). For software requested initializations this is the address of the PHASE OST and NOT the address where the problem was detected.

h = The processor status word (in hexadecimal). Among the information it contains are the execution level and the processor mode, i.e., kernel mode, kernel process, supervisor process, or user process. See *System Maintenance Manual,* Appendix P.

i = The contents of the primary segment base register (in hexadecimal).

SEE PROPRIETARY NOTICE ON COVER PAGE

j = The contents of the secondary segment base register (in hexadecimal).

k = The contents of the sixteen general purpose registers (in hexadecimal).

R9: argument pointer
RA: frame pointer
RB: stack pointer

l = Process utility id (in hexadecimal). See *System Maintenance Manual*, Process / Problem Table.

m = Process number (in hexadecimal).

n = For Model 1:

a blank line

For Model 2:

CHANNEL DATA REGISTER: *xxxxxxxx*

x = Channel data register (CDR) also known as the CCIO bus data register (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Run diagnostics on the indicated unit.

5. ALARMS

None.

6. REFERENCES

Output Message
DGN-UNIT

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-PSM-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `REPT PSM ERROR X'`*a* `GRPN` *b* `STATE X'`*c*

[2] `REPT PSM ERROR X'`*a* `SYSTEM ERROR` *d* `GRPN` *b*
`STATE X'`*c*

[3] `REPT PSM ERROR X'`*a* `GRPN` *b*

2. REASON FOR OUTPUT

Format 1 is to report the power switch monitor (PSM) encountered an error while trying to perform an operation.

Format 2 is to report the PSM encountered an error while attempting to send a message to the scanner and signal distributor administrator (SCSDA).

Format 3 is to report an unidentified group has been requested to be operated upon.

3. VARIABLE FIELD DEFINITIONS

a = Error code.

b = Logical group name.

c = PSM mode of logical group.

d = System error code. See `errno.h`.

Where *a* = One of the following values:

`0xe0` — Error in unit control block (UCB) pointer. Check addressing flags in the message.

`0xe1` — Error in unit number. Specified unit is not identified by the SCSDA.

`0xe2` — Error in logical group name. SCSDA cannot find reference to a group. Logical group unit may have been degrown. Check message. Possible save area corruption. Verify group in database.

`0xe3` — Error in duplex identification. Check message. Possible PSM save area corruption. Check database records.

`0xe4` — Scanner and signal distributor controller (SCSDC) is possibly out-of-service (OOS). Check status of SCSDC.

SEE PROPRIETARY NOTICE ON COVER PAGE

`0xe5` — Invalid point number. Check message. Possible PSM save area corruption. Check database record to verify that the point is included in the group.

`0xe6` — Address type not specified in message. Check message.

`0xe7` — Scanner and signal distributor handler (SCSDH) failed to complete the operation. Check status of SCSDC and SCSDA. Check SCSDH error messages to determine the problem.

`0xe8` — Illegal class requested. Class cannot be monitored. Check message. See `ecd.h` for legal classes.

`0xe9` — SCSDA cannot add client to list. Check for multiple occurrences of processes.

`0xea` — Unknown command type. Check message.

`0xeb` — SCSDA is in incorrect state to perform operations on the SCSDC. Check status of SCSDC.

`0xec` — Point from database record retrieved by SCSDA is illegal. Review database forms.

`0xed` — SCSDA could not update database.

`0xee` — No error.

`0xef` — Illegal operation requested. Check message.

`0xf0` — Illegal number of operations requested per message. Check ad_count in message.

`0xf1` — SCSDA could not find the class requested to be monitored by PSM in any of the database forms. Check database forms and SCSDC equipage.

`0xf2` — Operation could not be completed by SCSDH. Additional information can be obtained from SCSDH error message.

`0xf3` — Unknown message type has been received by SCSDA from the SCSDH.

`0xf4` — SCSDA cannot update database.

`0x100` — PSM failed to send message to SCSDA. See msgport.

`0x101` — PSM could not get a timing chain entry.

`0x102` — PSM could not complete operation.

`0x103` — Invalid message received by PSM from SCSDA. Check the record identification (RID) of unit specified in the database. Check message.

`0x104` — PSM could not get UCB information for logical group. Possible corrupted RID in message. Review database form.

SEE PROPRIETARY NOTICE ON COVER PAGE

`0x105` — PSM has determined group save area is corrupted. Reinitialize PSM.

`0x106` — PSM could not identify group. Check message. Possible PSM corruption. In addition, check if group was rejected upon initialization.

Where *c* = One of the following values:

`0x10` — Group is unavailable. PSM has encountered multiple internal errors.

`0x11` — Group is idle.

`0x12` — PSM is performing a directed scan operation.

`0x13` — PSM is performing a distribute operation.

`0x14` — PSM is performing an allow operation.

`0x15` — PSM is waiting for inhibits to be cleared.

4. ACTION TO BE TAKEN

For Formats 1 and 2, locate the offending code or hardware from the error code. Check the status of the hardware by using the `OP:OOS` input message. Verify that the SCSDC is equipped. Verify that the database forms contain the proper data. If corrupted areas are found in PSM, the processes should be restarted to reinitialize. If PSM is suspected of being corrupted, procedures should be taken to produce a dump of the process and forward information to the service organization.

For Format 3, verify that the database forms contain the proper logical group name. Verify that the correct logical group was input.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
Formats 1, 2, and 3 have an OMDB key of 138.

Input Message
`OP:OOS`

Output Messages
`RCVRY-SCSDC`
`REPT-SCSDC`

Computer System Header Files
`admsg.h`
`errno.h`
`psm.h`
`ecd.h`

SEE PROPRIETARY NOTICE ON COVER PAGE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-PSM-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `REPT PSM ERROR X'`*a* `GRPN` *b* `STATE X'`*c*

[2] `REPT PSM ERROR X'`*a* `SYSTEM ERROR` *d* `GRPN` *b*
`STATE X'`*c*

[3] `REPT PSM ERROR X'`*a* `GRPN` *b*

2. REASON FOR OUTPUT

Format 1 is to report the power switch monitor (PSM) encountered an error while trying to perform an operation.

Format 2 is to report the PSM encountered an error while attempting to send a message to the scanner and signal distributor administrator (SCSDA).

Format 3 is to report an unidentified group has been requested to be operated upon.

3. VARIABLE FIELD DEFINITIONS

a = Error code. One of the following values:

- `0xe0` — Error in unit control block (UCB) pointer. Check addressing flags in the message.
- `0xe1` — Error in unit number. Specified unit is not identified by the SCSDA.
- `0xe2` — Error in logical group name. SCSDA cannot find reference to a group. Logical group unit may have been degrown. Check message. Possible save area corruption. Verify group in database.
- `0xe3` — Error in duplex identification. Check message. Possible PSM save area corruption. Check database records.
- `0xe4` — Scanner and signal distributor controller (SCSDC) is possibly out of service (OOS). Check status of SCSDC.
- `0xe5` — Invalid point number. Check message. Possible PSM save area corruption. Check database record to verify that the point is included in the group.
- `0xe6` — Address type not specified in message. Check message.
- `0xe7` — Scanner and signal distributor handler (SCSDH) failed to complete the operation. Check status of SCSDC and SCSDA. Check SCSDH error messages to determine the problem.

SEE PROPRIETARY NOTICE ON COVER PAGE

`0xe8` — Illegal class requested. Class cannot be monitored. Check message. See ecd.h for legal classes.
`0xe9` — SCSDA cannot add client to list. Check for multiple occurrences of processes.
`0xea` — Unknown command type. Check message.
`0xeb` — SCSDA is in incorrect state to perform operations on the SCSDC. Check status of SCSDC.
`0xec` — Point from database record retrieved by SCSDA is illegal. Review database forms.
`0xed` — SCSDA could not update database.
`0xee` — No error.
`0xef` — Illegal operation requested. Check message.
`0xf0` — Illegal number of operations requested per message. Check ad_count in message.
`0xf1` — SCSDA could not find the class requested to be monitored by PSM in any of the database forms. Check database forms and SCSDC equipage.
`0xf2` — Operation could not be completed by SCSDH. Additional information can be obtained from SCSDH error message.
`0xf3` — Unknown message type has been received by SCSDA from the SCSDH.
`0xf4` — SCSDA cannot update database.
`0x100` — PSM failed to send message to SCSDA. See msgport.
`0x101` — PSM could not get a timing chain entry.
`0x102` — PSM could not complete operation.
`0x103` — Invalid message received by PSM from SCSDA. Check the record identification (RID) of unit specified in the database. Check message.
`0x104` — PSM could not get UCB information for logical group. Possible corrupted RID in message. Review database form.
`0x105` — PSM has determined group save area is corrupted. Reinitialize PSM.
`0x106` — PSM could not identify group. Check message. Possible PSM corruption. In addition, check if group was rejected upon initialization.

b = Logical group name.

c = PSM mode of logical group. One of the following values:

`0x10` — Group is unavailable. PSM has encountered multiple internal errors.
`0x11` — Group is idle.
`0x12` — PSM is performing a directed scan operation.
`0x13` — PSM is performing a distribute operation.
`0x14` — PSM is performing an allow operation.
`0x15` — PSM is waiting for inhibits to be cleared.

d = System error code. See the *System Maintenance Manual.*

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4. ACTION TO BE TAKEN

For Formats 1 and 2, locate the offending code or hardware from the error code. Check the status of the hardware by using the OP:OOS input message. Verify that the SCSDC is equipped. Verify that the database forms contain the proper data. If corrupted areas are found in PSM, the processes should be restarted to reinitialize. If PSM is suspected of being corrupted, procedures should be taken to produce a dump of the process and forward information to the service organization.

For Format 3, verify that the database forms contain the proper logical group name. Verify that the correct logical group was input.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
Formats 1,2, and 3 have an OMDB key of 138.

Input Message
OP:OOS

Output Messages
RCVRY-SCSDC
REPT-SCSDC

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

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ID . . . . . REPT-PWRFLTC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT POWER FAULT CLEARED` *a b* [*c d*]

2. REASON FOR OUTPUT

To indicate that a power fault detected by scanning the unit's power switch has been cleared.

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

c = Subunit name.

d = Subunit number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

None.

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Section 3

Output Message Alphabetical Indexes

Message Name	Message ID	Generic
ACTV OMDB	ACTV-OMDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW AUD	ALW-AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW CONFLOG	ALW-CONFLOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW DMQ	ALW-DMQ-A	UNIX RTR R1.5 only
ALW DMQ	ALW-DMQ-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW EAIINT	ALW-EAIINT	UNIX RTR R21.3, R21.11, R21.15 and later
ALW ERRCHK	ALW-ERRCHK-A	UNIX RTR R1.5 only
ALW ERRCHK	ALW-ERRCHK-B	UNIX RTR R6.4 only
ALW ERRCHK	ALW-ERRCHK-C	UNIX RTR R21.3, R21.11, R21.15 and later
ALW ERRINT	ALW-ERRINT-A	UNIX RTR R1.5 only
ALW ERRINT	ALW-ERRINT-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW ERRSRC	ALW-ERRSRC-A	UNIX RTR R1.5 only
ALW ERRSRC	ALW-ERRSRC-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW FILESYS ACCESS	ALW-F,ACCESS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW FILESYS MOUNT	ALW-F,MOUNT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW FILESYS OWNER	ALW-F,OWNER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW HDWCHK	ALW-HDWCHK-A	UNIX RTR R1.5 only
ALW HDWCHK	ALW-HDWCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW REX	ALW-REX	UNIX RTR R21.3, R21.11, R21.15 and later
ALW SCSD	ALW-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
ALW SFTCHK	ALW-SFTCHK-A	UNIX RTR R1.5 only
ALW SFTCHK	ALW-SFTCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW UMEM	ALW-UMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW UTIL	ALW-UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW UTILFLAG	ALW-UTILFLAG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ANALY TLPFILE	ANALY-TLPFILE-A	UNIX RTR R1.5, R6.4, and R21.3,
ANALY TLPFILE	ANALY-TLPFILE-B	UNIX RTR R21.11, R21.15, R21.17 and R21.31
ANALY TLPFILE	ANALY-TLPFILE-C	UNIX RTR R21.23, R21.27 and R21.30
ANALY TLPFILE	ANALY-TLPFILE-D	UNIX RTR R21.35 and later
APPENDIX ACKDGMNT DATABASE	APP-ACK-DB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT A	APP-AUD-APPA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT B	APP-AUD-APPB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT C	APP-AUD-APPC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT D	APP-AUD-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUTHORITY CODE	APP-AUTH-CODE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX BOOTDISKCHK	APP-BOOTDISKCHK	UNIX RTR R21.27 and later
APPENDIX DCI A	APP-DCI-APPA-A	UNIX RTR R21.3 and R21.11
APPENDIX DCI A	APP-DCI-APPA-B	UNIX RTR R21.15 thru R21.30
APPENDIX DCI A	APP-DCI-APPA-C	UNIX RTR R21.31 and later
APPENDIX DCI B	APP-DCI-APPB-A	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI C	APP-DCI-APPC	UNIX RTR R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
APPENDIX DCI D	APP-DCI-APPD	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI E	APP-DCI-APPE	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI F	APP-DCI-APPF	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI G	APP-DCI-APPG	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI H	APP-DCI-APPH	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DFC A	APP-DFC-APPA-A	UNIX RTR R1.5 only
APPENDIX DFC A	APP-DFC-APPA-B	UNIX RTR R6.4 only
APPENDIX DFC A	APP-DFC-APPA-C	UNIX RTR R21.3 only
APPENDIX DFC A	APP-DFC-APPA-D	UNIX RTR R21.11, R21.15, 21.19 thru 21.25
APPENDIX DFC A	APP-DFC-APPA-F	UNIX RTR R21.23 only
APPENDIX DFC A	APP-DFC-APPA-G	UNIX RTR R21.27 and R21.30
APPENDIX DFC A	APP-DFC-APPA-H	UNIX RTR R21.31, R21.33 and later
APPENDIX DFC B	APP-DFC-APPB-A	UNIX RTR R1.5 and R6.4
APPENDIX DFC B	APP-DFC-APPB-B	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DFC C	APP-DFC-APPC-A	UNIX RTR R1.5 and R6.4
APPENDIX DFC C	APP-DFC-APPC-B	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DFC D	APP-DFC-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC E	APP-DFC-APPE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC F	APP-DFC-APPF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC G	APP-DFC-APPG-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
APPENDIX DFC G	APP-DFC-APPG-B	UNIX RTR R21.11 and R21.15
APPENDIX DFC H	APP-DFC-APPH-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
APPENDIX DFC H	APP-DFC-APPH-B	UNIX RTR R21.11 and R21.15
APPENDIX DFC I	APP-DFC-APPI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
APPENDIX DFC J	APP-DFC-APPJ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC K	APP-DFC-APPK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC L	APP-DFC-APPL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC M	APP-DFC-APPM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC N	APP-DFC-APPN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC O	APP-DFC-APPO	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC P	APP-DFC-APPP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX FAULT CODE	APP-FAULT-CODE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX FIELD MAINT CODES	APP-FMC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX FLD UDATE ERROR CODES	APP-FUEC-APP	UNIX R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP A	APP-IOP-APPA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP B	APP-IOP-APPB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP C	APP-IOP-APPC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP D	APP-IOP-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP E	APP-IOP-APPE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP F	APP-IOP-APPF-A	UNIX RTR R1.5 and R6.4
APPENDIX IOP F	APP-IOP-APPF-B	UNIX RTR R21.3, R21.11, R21.15 thru R21.25
APPENDIX IOP F	APP-IOP-APPF-C	UNIX RTR R21.27 and later

Message Name	Message ID	Generic
APPENDIX IOP G	APP-IOP-APPG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP H	APP-IOP-APPH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP I	APP-IOP-APPI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP J	APP-IOP-APPJ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX LLA	APP-LLA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MEMBER NUMBERS B	APP-MEM-NUM-APPB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MEMBER NUMBERS C	APP-MEM-NUM-APPC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MEMBER NUMBERS D	APP-MEM-NUM-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MESSAGE CLASS	APP-MSGCLASS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX OMDB X REF	APP-OMDB-REF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX OP FNAME	APP-OP-FNAME	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX OST	APP-OST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX SUPR	APP-SUPR-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
APPENDIX SUPR	APP-SUPR-B	UNIX RTR R21.27 and later
APPENDIX SUPR MENU PAGE	APP-SUPR-MENU-PG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX SYSTEM ERROR CODES	APP-SYSERR-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
APPENDIX SYSTEM ERROR CODES	APP-SYSERR-B	UNIX RTR R21.11 and R21.15
APPENDIX TAPE LIBRARY ERRORS	APP-TAPE-LIB	UNIX RTR R21.15 and later
APPENDIX UTILITY ID	APP-UTIL-ID-A	UNIX RTR R1.5, R6.4, R21.3, and R21.11
APPENDIX UTILITY ID	APP-UTIL-ID-B	UNIX RTR R21.15 and later

Message Name	Message ID	Generic
APPLY OMDB	APPLY-OMDB-A	UNIX RTR R1.5 only
APPLY OMDB	APPLY-OMDB-B	UNIX RTR R6.4 and R21.3
APPLY OMDB	APPLY-OMDB-C	UNIX RTR R21.11, R21.15 and later
AUD CUMEM	AUD-CUMEM-A	UNIX RTR R1.5 only
AUD CUMEM	AUD-CUMEM-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD CUSTAT	AUD-CUSTAT-A	UNIX RTR R1.5 only
AUD CUSTAT	AUD-CUSTAT-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD ECD	AUD-ECD-A	UNIX RTR R1.5 only
AUD ECD	AUD-ECD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD ECDOWN	AUD-ECDOWN-A	UNIX RTR R1.5 only
AUD ECDOWN	AUD-ECDOWN-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 1	AUD-FMGR1-A	UNIX RTR R1.5 only
AUD FMGR 1	AUD-FMGR1-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 2	AUD-FMGR2-A	UNIX RTR R1.5 only
AUD FMGR 2	AUD-FMGR2-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 3	AUD-FMGR3-A	UNIX RTR R1.5 only
AUD FMGR 3	AUD-FMGR3-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 4	AUD-FMGR4-A	UNIX RTR R1.5 only
AUD FMGR 4	AUD-FMGR4-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 5	AUD-FMGR5-A	UNIX RTR R1.5 only
AUD FMGR 5	AUD-FMGR5-B	UNIX RTR R6.4 only
AUD FMGR 5	AUD-FMGR5-C	UNIX RTR R21.3, R21.11, R21.15 and later
AUD FMGR 6	AUD-FMGR6-A	UNIX RTR R1.5 only
AUD FMGR 6	AUD-FMGR6-B	UNIX RTR R6.4, R21.11, R21.15 thru R21.27
AUD FMGR 6	AUD-FMGR6-C	UNIX RTR R21.3, R21.29 and later
AUD FMGR 7	AUD-FMGR7-A	UNIX RTR R1.5 only
AUD FMGR 7	AUD-FMGR7-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
AUD FMGR 8	AUD-FMGR8-A	UNIX RTR R1.5 only
AUD FMGR 8	AUD-FMGR8-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 9	AUD-FMGR9-A	UNIX RTR R1.5 only
AUD FMGR 9	AUD-FMGR9-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FSBLK	AUD-FSBLK-A	UNIX RTR R1.5 only
AUD FSBLK	AUD-FSBLK-B	UNIX RTR R6.4 only
AUD FSBLK	AUD-FSBLK-C	UNIX RTR R21.3 and R21.11
AUD FSBLK	AUD-FSBLK-D	UNIX RTR R21.15 and later
AUD FSCMPT	AUD-FSCMPT-A	UNIX RTR R1.5 only
AUD FSCMPT	AUD-FSCMPT-B	UNIX RTR R6.4 only
AUD FSCMPT	AUD-FSCMPT-C	UNIX RTR R21.3 and R21.11
AUD FSCMPT	AUD-FSCMPT-D	UNIX RTR R21.15 and later
AUD FSLINK	AUD-FSLINK-A	UNIX RTR R1.5 only
AUD FSLINK	AUD-FSLINK-B	UNIX RTR R6.4 only
AUD FSLINK	AUD-FSLINK-C	UNIX RTR R21.3 and R21.11
AUD FSLINK	AUD-FSLINK-D	UNIX RTR R21.15 and later
AUD MMGR	AUD-MMGR-A	UNIX RTR R1.5 only
AUD MMGR	AUD-MMGR-B	UNIX RTR R6.4 only
AUD MMGR	AUD-MMGR-C	UNIX RTR R21.3, R21.11, R21.15 and later
AUD MSGBUF	AUD-MSGBUF-A	UNIX RTR R1.5 only
AUD MSGBUF	AUD-MSGBUF-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD PMS	AUD-PMS-A	UNIX RTR R1.5 only
AUD PMS	AUD-PMS-B	UNIX RTR R6.4, R21.11, R21.15 and R21.17
AUD PMS	AUD-PMS-C	UNIX RTR R21.3, R21.19 and later
AUD PROAD	AUD-PROAD-A	UNIX RTR R1.5 only
AUD PROAD	AUD-PROAD-B	UNIX RTR R6.4 only
AUD PROAD	AUD-PROAD-C	UNIX RTR R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
CFR DUPLEXDISKS	CFR-DUPLEXDISKS	UNIX R21.27 and later
CLR EMERDMP	CLR-EMERDMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR FILESYS DIR	CLR-F,DIR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR FILESYS FILE	CLR-F,FILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR FANALM	CLR-FANALM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR IMCAT	CLR-IMCAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR IODRV	CLR-IODRV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR IOMEM	CLR-IOMEM	UNIX RTR R21.27 and later
CLR MHD MAEC	CLR-M,MAEC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
CLR PTN	CLR-PTN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR UMEM	CLR-UMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR UTIL	CLR-UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR UTILFLAG	CLR-UTILFLAG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CMPR DISK CORE	CMPR-D,CORE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CMPR MHD	CMPR-MHD-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
CMPR MHD	CMPR-MHD-B	UNIX RTR R21.11 and R21.15
COPY ACTDISK	COPY-ACTDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY ADDR	COPY-ADDR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY BKDISK	COPY-BKDISK-A	UNIX RTR R1.5 and R6.4
COPY BKDISK	COPY-BKDISK-B	UNIX RTR R21.3 and R21.11
COPY BKDISK	COPY-BKDISK-C	UNIX RTR R21.15 and later
COPY BKTAPE	COPY-BKTAPE	UNIX RTR R21.15 and later

Message Name	Message ID	Generic
COPY DIFF SRC	COPY-DIFF,SRC-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
COPY DIFF SRC	COPY-DIFF,SRC-B	UNIX RTR R21.11 and R21.15
COPY FILESYS CFILE	COPY-F,CFILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY FILESYS FILE	COPY-F,FILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY OOSDISK	COPY-OOSDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY PTN ALL	COPY-P,ALL-A	UNIX RTR R1.5, R6.4, R21.3 and R21.11
COPY PTN ALL	COPY-P,ALL-B	UNIX RTR R21.15 and later
COPY PID	COPY-PID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY REG	COPY-REG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY SPDISK	COPY-SPDISK-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
COPY SPDISK	COPY-SPDISK-B	UNIX RTR R21.27 and later
COPY TAPE EMERDMP	COPY-T,EMERDMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE IN	COPY-T,IN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE OUT	COPY-T,OUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE TEST	COPY-T,TEST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE TOP	COPY-T,TOP	UNIX RTR R21.3, R21.11, R21.15 and later
COPY UID	COPY-UID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY UVAR	COPY-UVAR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CU RECOVERY	CU-RECOVERY	UNIX RTR R21.11, R21.15 and later
DEL LOG	DEL-LOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
DGN AUDIT	DGN-AUDIT	UNIX RTR R1.5 only
DGN CU	DGN-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN CU MASC	DGN-CU,MASC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN DCI	DGN-DCI	UNIX RTR R21.3, R21.11, R21.15 and later
DGN DFC	DGN-DFC-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
DGN DFC	DGN-DFC-B	UNIX RTR R21.27 and later
DGN DUIC	DGN-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN HSDC	DGN-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN IOP	DGN-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN MHD	DGN-MHD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN MT	DGN-MT	UNIX RTR R21.3, R21.11, R21.15 and later
DGN MTC	DGN-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN MTTYC	DGN-MTTYC-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
DGN MTTYC	DGN-MTTYC-B	UNIX RTR R21.27 and later
DGN SCSDC	DGN-SDSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN SDLC	DGN-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN TTYC	DGN-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP ADDR	DUMP-ADDR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP BKTAPE	DUMP-BKTAPE	UNIX RTR R21.15 and later
DUMP CACHE	DUMP-CACHE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP FILE ALL	DUMP-F,ALL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
DUMP FILE FORMAT	DUMP-F,FORMAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP FILE PARTL	DUMP-F,PARTL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP KERN	DUMP-KERN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP MHD BLOCK	DUMP-MHD,BLK-A	UNIX RTR R1.5 only
DUMP MHD BLOCK	DUMP-MHD,BLK-B	UNIX RTR R6.4 only
DUMP MHD BLOCK	DUMP-MHD,BLK-C	UNIX RTR R21.3, R21.11, R21.15 and later
DUMP MHD DEFECT	DUMP-MHD,DEF-A	UNIX RTR R1.5 only
DUMP MHD DEFECT	DUMP-MHD,DEF-B	UNIX RTR R6.4 only
DUMP MHD DEFECT	DUMP-MHD,DEF-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.21
DUMP MHD DEFECT	DUMP-MHD,DEF-D	UNIX RTR R21.23 and later
DUMP MHD VTOC	DUMP-MHD,VTO-A	UNIX RTR R1.5 only
DUMP MHD VTOC	DUMP-MHD,VTO-B	UNIX RTR R6.4 only
DUMP MHD VTOC	DUMP-MHD,VTO-C	UNIX RTR R21.3, R21.11, R21.15 and later
DUMP PID	DUMP-PID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP PMEM	DUMP-PMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP REG	DUMP-REG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP UID	DUMP-UID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP UVAR	DUMP-UVAR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX CU	EX-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX DCI	EX-DCI	UNIX RTR R21.3, R21.15 and later
EX DFC	EX-DFC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX DUIC	EX-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX HSDC	EX-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
EX IOP	EX-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX LDPARM	EX LDPARM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX LOOP	EX-LOOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX MHD	EX-MHD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX MT	EX-MT	UNIX RTR R21.3, R21.11, R21.15 and later
EX MTC	EX-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX MTTYC	EX-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX PAUSE	EX-PAUSE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX SCSDC	EX-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX SDLC	EX-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
EX STEP	EX-STEP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX STOP	EX-STOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX TTYC	EX-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EXC ENVIR PROC	EXC-E,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EXC ENVIR UPROC	EXC-E,UPROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EXC OFLBOOT	EXC-OFLBOOT-A	UNIX RTR R21.3 and R21.11
EXC OFLBOOT	EXC-OFLBOOT-B	UNIX RTR R21.15 and later
IN FILE APND	IN-F,APND	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN FILE DEL	IN-F,DEL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN FILE REPL	IN-F,REPL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN FILESYS DIR	IN-FI,DIR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
IN REMOTE	IN-REM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE ERROR	IN-REM,ERROR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE INITIALIZED	IN-REM,INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE STARTED	IN-REM,START	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE STOPPED	IN-REM,STOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN XFER	IN-XFER	UNIX RTR R21.11, R21.15 and later
INH AUD	INH-AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH CONFLOG	INH-CONFLOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH DMQ	INH-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH EAIINT	INH-EAIINT	UNIX RTR R21.3, R21.11, R21.15 and later
INH ERRCHK	INH-ERRCHK-A	UNIX RTR R1.5 only
INH ERRCHK	INH-ERRCHK-B	UNIX RTR R6.4 only
INH ERRCHK	INH-ERRCHK-C	UNIX RTR R21.3, R21.11, R21.15 and later
INH ERRINT	INH-ERRINT-A	UNIX RTR R1.5 only
INH ERRINT	INH-ERRINT-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH ERRSRC	INH-ERRSRC-A	UNIX RTR R1.5 only
INH ERRSRC	INH-ERRSRC-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH FILESYS UMOUNT	INH-F,UMOUNT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH HDWCHK	INH-HDWCHK-A	UNIX RTR R1.5 only
INH HDWCHK	INH-HDWCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH REX	INH-REX	UNIX RTR R21.3, R21.11, R21.15 and later
INH SCSD	INH-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
INH SFTCHK	INH-SFTCHK-A	UNIX RTR R1.5 only
INH SFTCHK	INH-SFTCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH UMEM	INH-UMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH UTIL	INH-UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH UTILFLAG	INH-UTILFLAG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INIT MHD	INIT-MHD-A	UNIX RTR R1.5 only
INIT MHD	INIT-MHD-B	UNIX RTR R6.4 only
INIT MHD	INIT-MHD-C	UNIX RTR R21.3, R21.11, R21.15 and later
INIT ULARP	INIT-ULARP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INIT UMEM	INIT-UMEM-A	UNIX RTR R1.5 only
INIT UMEM	INIT-UMEM-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
LOAD ADDR	LOAD-ADDR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
LOAD DFC PUMP	LOAD-DFC,PUMP-A	UNIX RTR R6.4 only
LOAD DFC PUMP	LOAD-DFC,PUMP-B	UNIX RTR R21.3 and R21.11
LOAD DFC PUMP	LOAD-DFC,PUMP-C	UNIX RTR R21.15 and later
LOAD DFC RAM	LOAD-DFC,RAM-A	UNIX RTR R6.4 only
LOAD DFC RAM	LOAD-DFC,RAM-B	UNIX RTR R21.3, R21.11, R21.15, and later
LOAD MHD	LOAD-MHD-A	UNIX RTR R1.5 and R6.4
LOAD MHD	LOAD-MHD-B	UNIX RTR R21.3 and R21.11
LOAD MHD	LOAD-MHD-C	UNIX RTR R21.15 and later
LOAD MHD DEFECT	LOAD-MHD,DEF-A	UNIX RTR R1.5 only
LOAD MHD DEFECT	LOAD-MHD,DEF-B	UNIX RTR R6.4 only
LOAD MHD DEFECT	LOAD-MHD,DEF-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.21
LOAD MHD DEFECT	LOAD-MHD,DEF-D	UNIX RTR R21.23 only
LOAD MHD DEFECT	LOAD-MHD,DEF-E	UNIX RTR R21.25 and later
LOAD MHD FIRMWARE	LOAD-MHD,FIRM-A	UNIX RTR R6.4 only
LOAD MHD FIRMWARE	LOAD-MHD,FIRM-B	UNIX RTR R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
LOAD PMEM	LOAD-PMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
LOAD REG	LOAD-REG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
LOAD UVAR	LOAD-UVAR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ABD	OP-ABD	UNIX RTR R21.27 and later
OP ACT	OP-ACT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP AUD	OP-AUD-A	UNIX RTR R1.5 only
OP AUD	OP-AUD-B	UNIX RTR R6.4 only
OP AUD	OP-AUD-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP AUDERR	OP-AUDERR-A	UNIX RTR R1.5 only
OP AUDERR	OP-AUDERR-B	UNIX RTR R6.4 only
OP AUDERR	OP-AUDERR-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP CFGSTAT	OP-CFGSTAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP CLK	OP-CLK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP CONTROLLER INFO	OP-CONTROLLER,INFO	UNIX RTR R21.37 and later
OP DEVICE INFO	OP-DEVICE,INFO	UNIX RTR R21.37 and later
OP DFC INFO	OP-DFC,INFO-A	UNIX RTR R1.5 only
OP DFC INFO	OP-DFC,INFO-B	UNIX RTR R6.4 only
OP DFC INFO	OP-DFC,INFO-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.25
OP DFC INFO	OP-DFC-INFO-D	UNIX RTR R21.27 and later
OP DFCELOG	OP-DFCELOG-A	UNIX RTR R1.5 only
OP DFCELOG	OP-DFCELOG-B	UNIX RTR R6.4 only
OP DFCELOG	OP-DFCELOG-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP DMQ	OP-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP EMERSTAT	OP-EMERSTAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
OP ERRCHK	OP-ERRCHK-A	UNIX RTR R1.5 and R6.4
OP ERRCHK	OP-ERRCHK-B	UNIX RTR R21.3, R21.11, R21.15 and later
OP FNAME	OP-FNAME-A	UNIX RTR R1.5 and R6.4
OP FNAME	OP-FNAME-B	UNIX RTR R21.3, R21.11, R21.15 and later
OP GEN READLOG	OP-G,READLOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP GROW	OP-GROW	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP INIT	OP-INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP IODRV	OP-IODRV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP IOP INFO	OP-IOP,INFO	UNIX RTR R21.27 and later
OP LOG	OP-LOG-A	UNIX RTR R1.5 and R6.4
OP LOG	OP-LOG-B	UNIX RTR R21.3, R21.,11, R21.15 and later
OP MEMERRS	OP-MEMERRS-A	UNIX RTR R1.5 only
OP MEMERRS	OP-MEMERRS-B	UNIX RTR R6.4 only
OP MEMERRS	OP-MEMERRS-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP MHD INFO	OP-MHD,INFO-A	UNIX RTR R1.5 only
OP MHD INFO	OP-MHD,INFO-B	UNIX RTR R6.4 only
OP MHD INFO	OP-MHD,INFO-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.25
OP MHD INFO	OP-MHD,INFO-D	UNIX RTR R21.27 and later
OP MT INFO	OP-MT,INFO	UNIX RTR R21.3, R21.11, R21.15 and later
OP OFL	OP-OFL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP OMDB	OP-OMDB-A	UNIX RTR R1.5, R6.4 and R21.3
OP OMDB	OP-OMDB-B	UNIX RTR R21.11, R21.15 and later

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Message Name	Message ID	Generic
OP OOS	OP-OOS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP PMCR ERROR	OP-PMCR-A	UNIX RTR R1.5, R6.4 and R21.3
OP PMCR ERROR	OP-PMCR-B	UNIX RTR R21.11, R21.15 and later
OP REXINH	OP-REXINH-A	UNIX RTR R1.5 and R6.4
OP REXINH	OP-REXINH-B	UNIX RTR R21.3, R21.11, R21.15 and later
OP SCSD	OP-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS DISKUSE	OP-ST,DISKUSE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS FILESYS	OP-ST,FILESYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS FREEDISK	OP-ST,FRDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP TATUS LISTDIR	OP-ST,LSTDIR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS PORTS	OP-ST,PORTS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS PROCESS	OP-ST,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS SUM	OP-ST,SUM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STBY	OP-STBY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ULARP COMMAND	OP-ULARP,COM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ULARP EXECSEQ	OP-ULARP,EXEC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ULARP PROCESS	OP-ULARP,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP UMEM	OP-UMEM-A	UNIX RTR R1.5 only
OP UMEM	OP-UMEM-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
OP UNAV	OP-UNAV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP UNEQIP	OP-UNEQIP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
OP UTIL	OP-UTIL-A	UNIX RTR R1.5 only
OP UTIL	OP-UTIL-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
OP VERSION	OP-VERSION	UNIX RTR R21.11, R21.15 and later
ORD SCSD	ORD-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
PRM 0	PRM-0	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTECD VFY	RCV-DMTECD,VFY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTSG VFY	RCV-DMTSG,VFY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU	RCV-MENU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCVRY ALARM	RCVRY-ALARM	UNIX RTR R21.11, R21.15 and later
RCVRY CU	RCVRY-CU	UNIX RTR R1.5 only
RCVRY DUI	RCVRY-DUI	UNIX RTR R1.5 only
RCVRY DUIC	RCVRY-DUIC	UNIX RTR R1.5 only
RCVRY HSD	RCVRY-HSD	UNIX RTR R1.5 only
RCVRY HSDC	RCVRY-HSDC	UNIX RTR R1.5 only
RCVRY IOP	RCVRY-IOP	UNIX RTR R1.5 only
RCVRY MT	RCVRY-MT	UNIX RTR R1.5 only
RCVRY MTC	RCVRY-MTC	UNIX RTR R1.5 only
RCVRY MTTY	RCVRY-MTTY	UNIX RTR R1.5 only
RCVRY MTTYC	RCVRY-MTTYC	UNIX RTR R1.5 only
RCVRY ROP	RCVRY-ROP	UNIX RTR R1.5 only
RCVRY SCC	RCVRY-SCC	UNIX RTR R1.5 only
RCVRY SCSDC	RCVRY-SCSDC	UNIX RTR R1.5 only
RCVRY SDL	RCVRY-SDL	UNIX RTR R1.5 only
RCVRY SDLC	RCVRY-SDLC	UNIX RTR R1.5 only
RCVRY TTY	RCVRY-TTY	UNIX RTR R1.5 only
RCVRY TTYC	RCVRY-TTYC	UNIX RTR R1.5 only
REPT ADP	REPT-ADP-A	UNIX RTR R1.5 only
REPT ADP	REPT-ADP-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT ADP AUTORST	REPT-ADP,AUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT ADP INHIBIT ACTIVE	REPT-ADP,INHIBIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ADP INTERFACE ERROR	REPT-ADP,INTER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ADPAB	REPT-ADPAB-A	UNIX RTR R1.5 only
REPT ADPAB	REPT-ADPAB-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT ANALY TLP	REPT-ANALY,TLP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT AUDSTAT	REPT-AUDSTAT-A	UNIX RTR R1.5 only
REPT AUDSTAT	REPT-AUDSTAT-B	UNIX RTR R6.4 only
REPT AUDSTAT	REPT-AUDSTAT-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT AUTORST FAILURE	REPT-AUTORST-A	UNIX RTR R1.5 only
REPT AUTORST FAILURE	REPT-AUTORST-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT BAD ALIGN	REPT-BAD,ALIGN	UNIX RTR R1.5 only
REPT BAD OST	REPT-BAD,OST	UNIX RTR R1.5 only
REPT BAD PRTY DIO	REPT-BAD,PRTY-DIO	UNIX RTR R1.5 only
REPT BAD PRTY DMA	REPT-BAD,PRTY-DMA	UNIX RTR R1.5 only
REPT BDG	REPT-BDG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT BWMINT	REPT-BWMINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CCIO COMMAND	REPT-CCIO,CMD	UNIX RTR R1.5 only
REPT CCIO DATA PARITY	REPT-CCIO,DATA	UNIX RTR R1.5 only
REPT CD CIA	REPT-CD,CIA0	UNIX RTR R21.3, R21.11, R21.15 and later
REPT C/D DLGGETTY	REPT-CD,DLGGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT C/D ERROR	REPT-CD,ERROR-A	UNIX RTR R1.5 only
REPT C/D ERROR	REPT-CD,ERROR-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT C/D GETTY	REPT-CD,GETTY-A	UNIX RTR R1.5 only
REPT C/D GETTY	REPT-CD,GETTY-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT C/D POKER	REPT-CD,POKER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT C/D STARTER	REPT-CD,STARTER-A	UNIX RTR R1.5 only
REPT C/D STARTER	REPT-CD,STARTER-B	UNIX RTR R6.4, R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT C/D STARTER	REPT-CD,STARTER-C	UNIX RTR R21.3 only
REPT CFT LIB	REPT-CFT,LIB-A	UNIX RTR R1.5 and R6.4
REPT CFT LIB	REPT-CFT,LIB-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT CFTSHL	REPT-CFTSHL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CONFIG FAULT	REPT-CONFIG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CONFIG RECONFIGURATION	REPT-CONFIG,REC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
REPT CSOP	REPT-CSOP-A	UNIX RTR R1.5 only
REPT CSOP	REPT-CSOP-B	UNIX RTR R6.4 only
REPT CSOP	REPT-CSOP-C	UNIX RTR R21.3 only
REPT CSOP	REPT-CSOP-D	UNIX RTR R21.11, R21.15 and later
REPT CSOP FORMATTING	REPT-CSOP,FORM-A	UNIX RTR R1.5 and R6.4
REPT CSOP FORMATTING	REPT-CSOP,FORM-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT CSOP IN	REPT-CSOP,IN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CSOP PRIM	REPT-CSOP,PRIM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CU	REPT-CU-A	UNIX RTR R1.5, R6.4, R21.3, R21.11 and R21.15
REPT CU	REPT-CU-B	UNIX RTR R21.17 and later
REPT CURSTRMV FAULT	REPT-CURSTRMV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DCI	REPT-DCI	UNIX RTR R21.3, R21.11, R21.15 thru R21.30
REPT DCI	REPT-DCI	UNIX RTR R21.31 and later
REPT DCIDIP	REPT-DCIDIP	UNIX RTR R21.17 and later
REPT DEGROWTH	REPT-DEGROWTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DFC	REPT-DFC-A	UNIX RTR R1.5 only
REPT DFC	REPT-DFC-B	UNIX RTR R6.4 only.
REPT DFC	REPT-DFC-C	UNIX RTR R21.3 only
REPT DFC	REPT-DFC-D	UNIX RTR R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT DFC PUMP	REPT-DFC,PUMP	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT DFCE	REPT-DFCE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DFCI	REPT-DFCI-A	UNIX RTR R1.5 only
REPT DFCI	REPT-DFCI-B	UNIX RTR R6.4 only
REPT DFCI	REPT-DFCI-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT DFRMVRST ERROR	REPT-DFRMVRST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DGN	REPT-DGN-A	UNIX RTR R1.5 and R6.4
REPT DGN	REPT-DGN-B	UNIX RTR R21.3 only
REPT DGN	REPT-DGN-C	UNIX RTR R21.11, R21.15 and later
REPT DGN AUDIT	REPT-DGN,AUDIT	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT DIAMON	REPT-DIAMON	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DIO ACK	REPT-DIO,ACK	UNIX RTR R1.5 only
REPT DIO READY	REPT-DIO,READY	UNIX RTR R1.5 only
REPT DIOP	REPT-DIOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DKDIP	REPT-DKDIP-A	UNIX RTR R1.5 only
REPT DKDIP	REPT-DKDIP-B	UNIX RTR R6.4 only
REPT DKDIP	REPT-DKDIP-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT DKDRV	REPT-DKDRV-A	UNIX RTR R1.5 only
REPT DKDRV	REPT-DKDRV-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT DLGGETTY	REPT-DLGGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DLGSHL	REPT-DLGSHL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DMA ADDR	REPT-DMA,ADDR	UNIX RTR R1.5 only
REPT DMA ASW	REPT-DMA,ASW	UNIX RTR R1.5 only
REPT DMA CHNL	REPT-DMA,CHNL	UNIX RTR R1.5 only

Message Name	Message ID	Generic
REPT DMA RAM	REPT-DMA,RAM	UNIX RTR R1.5 only
REPT DMA ROM	REPT-DMA,ROM	UNIX RTR R1.5 only
REPT DMQ	REPT-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DUI	REPT-DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DUIC	REPT-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT EAI	REPT-EAI-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
REPT EAI	REPT-EAI-B	UNIX RTR R21.27 and later
REPT ECDMAN	REPT-ECDMAN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT EMERGENCY DUMP	REPT-EMER,DUMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ERRPORT	REPT-ERRPORT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ERSLOT	REPT-ERSLOT-A	UNIX RTR R6.4 only
REPT ERSLOT	REPT-ERSLOT-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT FAN	REPT-FAN-A	UNIX RTR R1.5 and R6.4
REPT FAN	REPT-FAN-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT FAN MULTI	REPT-FF,MULTI-A	UNIX RTR R1.5, R21.3, R21.11, R21.15 and later
REPT FAN MULTI	REPT-FF,MULTI-B	UNIX RTR R6.4 only
REPT FAN SINGLE	REPT-FF,SING-A	UNIX RTR R1.5, R21.3, R21.11, R21.15 and later
REPT FAN SINGLE	REPT-FF,SING-B	UNIX RTR R6.4 only
REPT FIELD MAINT	REPT-FIELD,MAINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FILESYS	REPT-FILESYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR	REPT-FMGR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR DSW	REPT-FMGR,DSW	UNIX RTR R21.3, R21.11, R21.15 and later
REPT FMGR ECD	REPT-FMGR,ECD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT FMGR FILSYS	REPT-FMGR,FILSYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR MOUNT	REPT-FMGR,MOUNT	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR NONTASK FAULT	REPT-FMGR,NF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR TABLE OVERLOAD	REPT-FMGR,OVLD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR PROCESS	REPT-FMGR,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR TASK STATUS	REPT-FMGR,TS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR UMNTFLD	REPT-FMGR-UMNTFLD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR UNMNT	REPT-FMGR,UNMNT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR WNDW	REPT-FMGR,WNDW	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FUSE ALARM	REPT-FUSE,ALM	UNIX RTR R21.3, R21.11, R21.15 and later
REPT GRASP	REPT-GRASP-A	UNIX RTR R1.5 only
REPT GRASP	REPT-GRASP-B	UNIX RTR R6.4 only
REPT GRASP	REPT-GRASP-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT GROWTH	REPT-GROWTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT HSD	REPT-HSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT HSDC	REPT-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ILL INSTRCT	REPT-ILL,INSTRCT	UNIX RTR R1.5 only
REPT ILL OPRND	REPT-ILL,OPRND	UNIX RTR R1.5 only
REPT ILL STACK	REPT-ILL,STACK	UNIX RTR R1.5 only
REPT INHADM	REPT-INHADM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT INHIBIT	REPT-INHIBIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT INIT	REPT-INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT INVLD ER INT	REPT-INVLD,ER-INT	UNIX RTR R1.5 only
REPT INVLD ER NUM	REPT-INVLD,ER-NUM	UNIX RTR R1.5 only

Message Name	Message ID	Generic
REPT INVLD MNTC	REPT-INVLD,MNTC	UNIX RTR R1.5 only
REPT IO CHNL ERR	REPT-IO,CHNL-ERR	UNIX RTR R1.5 only
REPT IODRV ATTRIBUTE	REPT-IODRV,AT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IODRV	REPT-IODRV,ERR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IODRV	REPT-IODRV,ERROR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IODRV	REPT-IODRV,FAULT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IOP	REPT-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IORMVRST ERROR	REPT-IORMVRST	UNIX RTR R1.5, R6.4, R21.3, and later
REPT KAUDPRC	REPT-KAUDPRC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT KLLA	REPT-KLLA	UNIX RTR R1.5 only
REPT LIBC ARGU	REPT-LIBC,ARGU	UNIX RTR R21.3, R21.11, R21.15 and later
REPT LIBC ER STRT	REPT-LIBC,ER-STRT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT LIBC EX	REPT-LIBC,EX	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT LIBC FAULT	REPT-LIBC,FL-A	UNIX RTR R1.5 and R6.4
REPT LIBC FAULT	REPT-LIBC,FL-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT LIBC FORK	REPT-LIBC,FO	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT LIBC PROGRAM	REPT-LIBC,PROGRAM	UNIX RTR R21.3, R21.11, R21.15 and later
REPT LIBC SAVE	REPT-LIBC,SAVE	UNIX RTR R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT LIBC START	REPT-LIBC,START	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MAINTENANCE REQUESTS	REPT-MAINT,REQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MAPFILE	REPT-MAPFILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MAXINTVL	REPT-MAXINTVL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MBD	REPT-MBD	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MEMORY PRTY	REPT-MEMORY,PRTY	UNIX RTR R1.5 only
REPT MHD	REPT-MHD-A	UNIX RTR R1.5 only
REPT MHD	REPT-MHD-B	UNIX RTR R6.4 only
REPT MHD	REPT-MHD-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT MIRA	REPT-MIRA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MKDSK	REPT-MKDSK	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR001	REPT-MMGR001	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR002	REPT-MMGR002	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR003	REPT-MMGR003-A	UNIX RTR R1.5 only
REPT MMGR003	REPT-MMGR003-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR004	REPT-MMGR004	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR005	REPT-MMGR005	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MOP	REPT-MOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MT	REPT-MT-A	UNIX RTR R1.5 and R6.4
REPT MT	REPT-MT-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT MTC	REPT-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT MTTY	REPT-MTTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MTTYC	REPT-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MY STORE A	REPT-MY,STORE-A	UNIX RTR R1.5 only
REPT MY STORE B	REPT-MY,STORE-B	UNIX RTR R1.5 only
REPT MY STORE C	REPT-MY,STORE-C	UNIX RTR R1.5 and R6.4
REPT NONCORR PRTY	REPT-NONCORR,PRTY	UNIX RTR R1.5 only
REPT OFFLINE	REPT-OFFLINE	UNIX RTR R21.3, R21.11, R21.15 thru R21.33
REPT OFFLINE	REPT-OFFLINE	UNIX RTR R21.35 and later
REPT OFLBOOT	REPT-OFLBOOT	UNIX RTR R21.3, R21.11, R21.15 and later
REPT OLBCONFIG FAULT	REPT-OLBCONFIG	UNIX RTR R21.3, R21.11, R21.15 and later
REPT OUT OF RANGE MEM	REPT-OORMR	UNIX RTR R1.5 only
REPT OUT OF RANGE MEM OTHER	REPT-OORMR,OTHR	UNIX RTR R1.5 only
REPT OP PMCR	REPT-OP,PMCR-A	UNIX RTR R1.5 and R6.4
REPT OP PMCR	REPT-OP,PMCR-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT OP PMCR ERROR	REPT-OP,PMER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT OTHER STORE HARDWARE	REPT-OTHR,SHE	UNIX RTR R1.5 and R6.4
REPT OTHER STORE READ	REPT-OTHR,SRDPE	UNIX RTR R1.5 and R6.4
REPT OTHER STORE REFRESH	REPT-OTHR,SRFPE	UNIX RTR R1.5 and R6.4
REPT OTHER STORE TIME OUT	REPT-OTHR,STOE	UNIX RTR R1.5 only
REPT OUTPUT	REPT-OUTPUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PASSWORD	REPT-PASSWORD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PCPAUD	REPT-PCPAUD-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
REPT PCPAUD	REPT-PCPAUD-B	UNIX RTR R21.27 only
REPT PCPAUD	REPT-PCPAUD-C	UNIX RTR R21.29 and later
REPT PCPMD FAULT	REPT-PCPMD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PHASE	REPT-PHASE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PINV	REPT-PINV	UNIX RTR R1.5 only

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Message Name	Message ID	Generic
REPT PLDMON ERROR	REPT-PLDMON,ERR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PMDBCOPY	REPT-PMDBCOPY-A	UNIX RTR R1.5, R6.4, R21.11, R21.15 thru R21.17
REPT PMDBCOPY	REPT-PMDBCOPY-B	UNIX RTR R21.3, R21.19 and later
REPT PMGR ERROR	REPT-PMGR,ERR-A	UNIX RTR R1.5 only
REPT PMGR ERROR	REPT-PMGR,ERR-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT PMSLOT	REPT-PMSLOT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT POWER	REPT-POWER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PREPHASE	REPT-PREPHASE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PRIV INSTR VIOL	REPT-PRIV,INSTRCT	UNIX RTR R1.5 only
REPT PROTECTION VIOLATION	REPT-PROTECT,VLTN	UNIX RTR R1.5 only
REPT PARITY DIVERT	REPT-PRTY-DVRT	UNIX RTR R1.5 only
REPT PSM	REPT-PSM-A	UNIX RTR R1.5 and R6.4
REPT PSM	REPT-PSM-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT PWRFLTC	REPT-PWRFLTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY CU	REPT-RCVRY,CU	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY DUI	REPT-RCVRY,DUI	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY DUIC	REPT-RCVRY,DUIC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY HSD	REPT-RCVRY,HSD	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY HSDC	REPT-RCVRY,HSDC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY IOP	REPT-RCVRY,IOP	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY MT	REPT-RCVRY,MT	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY MTC	REPT-RCVRY,MTC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY MTTY	REPT-RCVRY,MTTY	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT RCVRY MTTYC	REPT-RCVRY,MTTYC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY ROP	REPT-RCVRY,ROP	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SCC	REPT-RCVRY,SCC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SCSDC	REPT-RCVRY,SCSDC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SDL	REPT-RCVRY,SDL	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SDLC	REPT-RCVRY,SDLC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY TTY	REPT-RCVRY,TTY	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY TTYC	REPT-RCVRY,TTYC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT REX UNABLE	REPT-REX	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT REX SUMMARY	REPT-REX,SUM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RMF	REPT-RMF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RMTGETTY	REPT-RMTGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ROP	REPT-ROP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RTS	REPT-RTS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SCC	REPT-SCC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
REPT SCSD	REPT-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SCSDA	REPT-SCSDA-A	UNIX RTR R1.5 and R6.4
REPT SCSDA	REPT-SCSDA-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT SCSDC	REPT-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT SDL	REPT-SDL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SDLC	REPT-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SDLRTC	REPT-SDLRTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SDLRTN	REPT-SDLRTN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SHLGETTY	REPT-SHLGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SIM	REPT-SIM	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT SIMCHK	REPT-SIMCHK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SIND	REPT-SIND	UNIX RTR R1.5 only
REPT SINV	REPT-SINV	UNIX RTR R1.5 only
REPT SIOF ERROR	REPT-SIOF,ERROR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SOP	REPT-SOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SPL SYNTAX ERROR	REPT-SPL,SYN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SYSTEM	REPT-SYSTEM	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT TIME	REPT-TIME	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT TLP ERROR	REPT-TLP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT 3/6 MAIN CHAN ADDR	REPT-TS,MCASE	UNIX RTR R1.5 only
REPT 3/6 MAIN CHAN IO RESP	REPT-TS,MCIORE	UNIX RTR R1.5 only
REPT TTY	REPT-TTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT TTYC	REPT-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ULARP	REPT-ULARP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT UNIX INIT	REPT-UNIX,INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT VIRTUAL ADDR	REPT-VIRTUAL,ADDR	UNIX RTR R1.5 only

Message Name	Message ID	Generic
RFT FDUMP	RFT-FDUMP	UNIX RTR R1.5 only
RMV CU	RMV-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV DCI	RMV-DCI	UNIX RTR R21.3, R21.15 and later
RMV DFC	RMV-DFC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV DUI	RMV-DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV DUIC	RMV-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV HSD	RMV-HSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV HSDC	RMV-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV IOP	RMV-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV MHD	RMV-MHD-A	UNIX RTR R6.4, R21.3, R21.17 and later
RMV MHD	RMV-MHD-B	UNIX RTR R21.11 and R21.15
RMV MT	RMV-MT-A	UNIX RTR R1.5 and R6.4
RMV MT	RMV-MT-B	UNIX RTR R21.3, R21.11, R21.15 and later
RMV MTC	RMV-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV MTTY	RMV-MTTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV MTTYC	RMV-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV ROP	RMV-ROP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SBUS	RMV-SBUS-A	UNIX RTR R6.4 only
RMV SBUS	RMV-SBUS-B	UNIX RTR R21.3, R1.11, R21.15 and later
RMV SCC	RMV-SCC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SCSDC	RMV-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SDL	RMV-SDL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SDLC	RMV-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
RMV TTY	RMV-TTY	UNIX RTR R1.5, R6.4, R21.3, and later
RMV TTYC	RMV-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST CU	RST-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST DCI	RST-DCI	UNIX RTR R21.3, R21.15 and later
RST DFC	RST-DFC-A	UNIX RTR R1.5 and R6.4
RST DFC	RST-DFC-B	UNIX RTR R21.3, R21.11, R21.15 and later
RST DUI	RST-DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST DUIC	RST-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST HSD	RST-HSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST HSDC	RST-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
RST IOP	RST-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
RST MHD	RST-MHD-A	UNIX RTR R1.5 and R6.4
RST MHD	RST-MHD-B	UNIX RTR R21.3, R21.11, R21.15 and later
RST MT	RST-MT-A	UNIX RTR R1.5 and R6.4
RST MT	RST-MT-B	UNIX RTR R21.3, R21.11, R21.15 and later
RST MTC	RST-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST MTTY	RST-MTTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST MTTYC	RST-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST ROP	RST-ROP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST SBUS	RST-SBUS-A	UNIX RTR R6.4 only
RST SBUS	RST-SBUS-B	UNIX RTR R21.3, R21.11, R21.15, and later
RST SCC	RST-SCC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST SCSDC	RST-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST SDL	RST-SDL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
RST SDLC	RST-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST TTY	RST-TTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST TTYC	RST-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
SET CLK	SET-CLK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
SET IODRV	SET-IODRV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
START OF	START-OF	UNIX RTR R21.11, R21.15 and later
STOP AUD	STOP-AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
STOP BKDISK	STOP-BKDISK-A	UNIX RTR R1.5, R6.4, R21.3 and R21.11
STOP BKDISK	STOP-BKDISK-B	UNIX RTR R21.15 and later
STOP DCI	STOP-DCI	UNIX RTR R21.3, R21.11, R21.15 and later
STOP DMQ	STOP-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP EXC ANY	STOP-EXC,ANY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP EXC USER	STOP-EXC,USER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP GEN	STOP-GEN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP OFLBOOT	STOP-OFLBOOT	UNIX RTR R21.3, R21.11, R21.15 and later
STP DMQ	STP-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STP GEN	STP-GEN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
SW CU	SW-CU-A	UNIX RTR R1.5 only
SW CU	SW-CU-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
SW OFLBOOT	SW-OFLBOOT	UNIX RTR R21.3, R21.11, R21.15 and later
SW PORTSW	SW-PORTSW	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TST SPL	TST-SPL	UNIX RTR R1.5 only
UPD APPLY	UPD-APPLY	UNIX RTR R1.5, R6.4 and R21.3
UPD AUTOCHK REPORT	UPD-AUTOCHK	UNIX RTR R21.11, R21.15 and later
UPD AUTOMATION	UPD-AUTOMATION	UNIX RTR R21.11, R21.15 and later
UPD BKOUT	UPD-BKOUT	UNIX RTR R1.5, R6.4 and R21.3
UPD BLDBOOT	UPD-BLDBOOT	UNIX RTR R1.5, R6.4, R21.3 R21.11, R21.15 and later
UPD CLR	UPD-CLR	UNIX RTR R1.5, R6.4 and R21.3
UPD COMMAND	UPD-COMMAND	UNIX RTR R21.11, R21.15 and later
UPD CSCANS	UPD-CSCANS	UNIX RTR R21.11, R21.15 and later
UPD CSCANS REPORT	UPD-CSCANS-REPT	UNIX RTR R21.11, R21.11, R21.15 and later
UPD DFC FLASH	UPD-DFC,FLASH	UNIX RTR R21.11, R21.15 and later
UPD DISPLAY	UPD-DISPLAY-A	UNIX RTR R1.5, R6.4 and R21.3
UPD DISPLAY	UPD-DISPLAY-B	UNIX RTR R21.11, R21.15 and later
UPD FLASH	UPD-FLASH	UNIX RTR R21.11, R21.15 and later
UPD FTRC	UPD-FTRC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN APPLPROC	UPD-G,APPLPROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN BACKOUT	UPD-G,BKOUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN COMMIT	UPD-G,COMMIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN CONTINUE	UPD-G,CONT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN ENTER	UPD-G,ENTER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN PROCEED	UPD-G,PROCD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
UPD GEN RESTORE	UPD-G,RESTR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
UPD ISG	UPD-ISG-A	UNIX RTR R1.5 and R6.4
UPD ISG	UPD-ISG-B	UNIX RTR R21.3, R21.11, R21.15 and later
UPD OMDB	UPD-OMDB-A	UNIX RTR R1.5, R6.4 and R21.3
UPD OMDB	UPD-OMDB-B	UNIX RTR R21.11, R21.15 and later
UPD OMIT	UPD-OMIT	UNIX RTR R1.5, R6.4 and R21.3
UPD PERM	UPD-PERM	UNIX RTR R1.5, R6.4 and R21.3
UPD PURGE	UPD-PURGE	UNIX RTR R1.5, R6.4 and R21.3
UPD RECLAIM	UPD-RECLAIM	UNIX RTR R1.5, R6.4 and R21.3
UPD REPT	UPD-REPT-A	UNIX RTR R1.5, R6.4 and R21.3
UPD REPT	UPD-REPT-B	UNIX RTR R21.11, R21.15 and later
UPD RESET	UPD-RESET	UNIX RTR R1.5, R6.4 and R21.3
UPD UPNM	UPD-UPNM	UNIX RTR R1.5, R6.4 and R21.3
UPD VERSION	UPD-VERSION	UNIX RTR R21.11, R21.15 and later
UPD VFY	UPD-VFY	UNIX RTR R1.5, R6.4 and R21.3
UPD VFYCON	UPD-VFYCON	UNIX RTR R21.11, R21.15 and later
VFY FILE	VFY-FILE-A	UNIX RTR R1.5 only
VFY FILE	VFY-FILE-B	UNIX RTR R6.4 only
VFY FILE	VFY-FILE-C	UNIX RTR R21.3, R21.11, R21.15 and later
VFY MHD	VFY-MHD-A	UNIX RTR R1.5 only
VFY MHD	VFY-MHD-B	UNIX RTR R6.4 only
VFY MHD	VFY-MHD-C	UNIX RTR R21.3, R21.11, R21.15 and later
VFY PAUTH	VFY-PAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
VFY PCGRP	VFY-PCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
VFY PROFL	VFY-PROFL	UNIX RTR R21.3, R21.11, R21.15 and later
VFY TAPE	VFY-TAPE-A	UNIX RTR R1.5, R6.4, R21.3 and R21.11
VFY TAPE	VFY-TAPE-B	UNIX RTR R21.15 and later

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Message Name	Message ID	Generic
VFY TAUTH	VFY-TAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
VFY TCGRP	VFY-TCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
WHEN COND	WHEN-COND	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
WHEN PID	WHEN-PID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
WHEN UID	WHEN-UID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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ID . . . . . REPT-RCVRY,CU
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT RCVRY CU a COMPLETED
```

2. REASON FOR OUTPUT

To report that the initialization interval of the active control unit (CU) is complete.

3. VARIABLE FIELD DEFINITIONS

a = Member number (0 or 1).

4. ACTION TO BE TAKEN

The cause of the initialization can be determined by accessing the most recent post-mortem dump from PMLOG. (Use the `OP:LOG` input message and specify the current date.)

5. ALARMS

None.

6. REFERENCES

Input Message
`OP:LOG`

ID . . . . . REPT-RCVRY,DUI
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT RCVRY DUI` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a direct user interface (DUI) subdevice recovery attempt. The DUI, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See output IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:DUIC`
`RMV:DUI`
`RST:DUI`
`CLR:IODRV`

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Output Messages

```
REPT-IOP
REPT-DUIC
REPT-DUI
REPT-RCVRY,IOP
REPT-RCVRY,DUIC
```

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ID . . . . . REPT-RCVRY,DUIC
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT RCVRY DUIC` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a direct user interface controller (DUIC) recovery attempt. The DUIC, initially in the active state, transitions to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See output IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:DUIC`
`RMV:DUIC`
`RST:DUIC`
`CLR:IODRV`

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Output Messages

```
REPT-IOP
REPT-DUIC
REPT-RCVRY,IOP
```

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ID . . . . . REPT-RCVRY,HSD
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT RCVRY HSD` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a high-speed synchronous data link (HSD) recovery attempt. The HSD, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See output IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:HSDC`
`RMV:HSD`
`RST:HSD`
`CLR:IODRV`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
REPT-IOP
REPT-HSD
REPT-HSDC
REPT-RCVRY,IOP
REPT-RCVRY,HSDC
DGN-HSDC
RMV-HSD
RST-HSD
```

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ID . . . . . REPT-RCVRY,HSDC
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT RCVRY HSDC` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a high-speed synchronous datalink controller (HSDC) recovery attempt. The HSDC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See output IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:HSDC`
`RMV:HSDC`
`RST:HSDC`
`CLR:IODRV`

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Output Messages

```
REPT-IOP
REPT-HSDC
REPT-RCVRY,IOP
DGN-HSDC
REPT-IOP
REPT-HSDC
RCVRY-IOP
RMV-HSDC
RST-HSDC
```

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ID . . . . . REPT-RCVRY,IOP
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT RCVRY IOP` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of an input/output processor (IOP) recovery attempt. The IOP, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See the output IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:IOP`
`RMV:IOP`
`RST:IOP`
`CLR:IODRV`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message
```
REPT-RCVRY,IOP
```

Practice 254-301-105 *Input/Output Processor Description and Theory of Operation 3B Processor*

ID . . . . . REPT-RCVRY,MT
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT RCVRY MT` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a magnetic tape (MT) unit recovery attempt. The MT, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See output IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`CLR:IODRV`
`DGN:MTC`
`RMV:MT`
`RST:MT`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
REPT-RCVRY,IOP
REPT-RCVRY,MTC
REPT-IOP
REPT-MT
```

Practice 254-301-220 *Magnetic Tape System General Description 3B20D Model 1 Processor*

ID . . . . . REPT-RCVRY,MTC
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT RCVRY MTC` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a magnetic tape controller (MTC) recovery attempt. The MTC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred; recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See output IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:MTC`
`RMV:MTC`
`CLR:IODRV`
`RST:MTC`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
REPT-RCVRY,IOP
REPT-IOP
```

Practice 254-301-220 *Magnetic Tape System General Description 3B20D Model 1 Processor*

ID . . . . . REPT-RCVRY,MTTY
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT RCVRY MTTY` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a maintenance teletypewriter (MTTY) recovery attempt. The MTTY, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See output IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:MTTYC`
`RMV:MTTY`
`CLR:IODRV`
`RST:MTTY`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
REPT-RCVRY,IOP
REPT-RCVRY,MTTYC
REPT-IOP
REPT-MTTY
REPT-MTTYC
```

Practice 254-301-115 *Teletypewriter/Printer System Description Lucent Technologies 3B20D Computer*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-RCVRY,MTTYC
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT RCVRY MTTYC` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a maintenance teletypewriter controller (MTTYC) recovery attempt. The MTTYC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See output IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
This message has an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`CLR:IODRV`
`DGN:MTTYC`
`RMV:MTTYC`
`RST:MTTYC`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
REPT-RCVRY,IOP
REPT-IOP
REPT-MTTYC
```

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

Practice 254-301-115 *Teletypewriter/Printer System Description Lucent Technologies 3B20D Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-RCVRY,ROP
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT RCVRY ROP` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a receive-only printer (ROP) recovery attempt. The ROP, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See output IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:MTTYC`
`RMV:ROP`
`CLR:IODRV`
`RST:ROP`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
REPT-RCVRY,IOP
REPT-RCVRY,MTTYC
REPT-ROP
REPT-IOP
REPT-MTTYC
```

Practice 254-301-115 *Teletypewriter/Printer System Description Lucent Technologies 3B20D Computer*

ID . . . . . REPT-RCVRY,SCC
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT RCVRY SCC` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a Switching Control Center (SCC) recovery attempt. The SCC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See output IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:MTTYC`
`RMV:SCC`
`CLR:IODRV`
`RST:SCC`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
REPT-RCVRY,IOP
REPT-RCVRY,MTTYC
REPT-IOP
REPT-MTTYC
REPT-SCC
```

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-RCVRY,SCSDC
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT RCVRY SCSDC` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a scanner and signal distributor (SCSD) recovery attempt. The SCSD, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See output IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`RMV:SCSDC`
`RST:SCSDC`
`CLR:IODRV`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
REPT-RCVRY,IOP
REPT-IOP
REPT-SCSDC
```

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

ID . . . . . REPT-RCVRY,SDL
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT RCVRY SDL` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a synchronous datalink (SDL) recovery attempt. The SDL, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See output IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:SDLC`
`RMV:SDL`
`CLR:IODRV`
`RST:SDL`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
REPT-RCVRY,IOP
REPT-RCVRY,SDLC
REPT-IOP
REPT-SDL
REPT-SDLC
```

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

ID . . . . . REPT-RCVRY,SDLC
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT RCVRY SDLC` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a synchronous datalink controller (SDLC) recovery attempt. The SDLC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See output IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:SDLC`
`RMV:SDLC`
`CLR:IODRV`
`RST:SDLC`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
REPT-RCVRY,IOP
REPT-IOP
REPT-SDLC
```

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

ID . . . . . REPT-RCVRY,TTY
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT RCVRY TTY` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a teletypewriter (TTY) recovery attempt. The TTY, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See output IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:TTYC`
`RMV:TTY`
`CLR:IODRV`
`RST:TTY`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
REPT-RCVRY,IOP
REPT-RCVRY,TTYC
REPT-IOP
REPT-TTY
REPT-TTYC
```

Practice 254-301-115 *Teletypewriter/Printer System Description Lucent Technologies 3B20D Computer*

ID . . . . . REPT-RCVRY,TTYC
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT RCVRY TTYC` *a b* [*c*]

2. REASON FOR OUTPUT

To report the outcome of a teletypewriter controller (TTYC) recovery attempt. The TTYC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — An error occurred: recovery failed.

`COMPLETED` — Recovery was successful.

c = Additional error information. See output IOP Appendix F, `IOP-APPF`.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 196.

Output Appendix
`IOP-APPF`

Input Messages
`DGN:TTYC`
`RMV:TTYC`
`CLR:IODRV`
`RST:TTYC`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
REPT-RCVRY,IOP
REPT-IOP
REPT-TTYC
```

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-REX UNABLE
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `REPT REX UNABLE TO SEND MESSAGE TO APPLICATION REX PORT`

[2] `REPT REX UNABLE TO REQUEST PORTSWITCH FOR IOP DIAGNOSIS`

[3] `REPT REX ROP PORTSWITCH REQUEST DENIED`

[4] `REPT REX MTTY PORTSWITCH REQUEST DENIED`

[5] `REPT REX MAJOR ALARM` *a*

[6] `REPT REX CANNOT OPEN` *b*

[7] `REPT REX TERMINATED-INTERNAL REQUEST`

[8] `REPT REX MINOR ALARM` *a*

2. REASON FOR OUTPUT

For Format 1, before REX removes the input/output processors (IOPs) for diagnosis, it will send a message to PT_REX to notify the applications of the removal. The applications can then gracefully stop their datalink transmission. If no process is connected to this port, this message will be printed and execution will continue normally.

For Format 2, before REX removes an IOP for diagnosis, it must make sure the portswitches for the maintenance teletypewriter (MTTY) or receive-only printer (ROP) are not active. This message indicates REX had a problem locating the unit control block (UCB) for the ROP or MTTY.

For Format 3, REX sent a request to portswitch the ROP and it was denied or could not be executed.

For Format 4, REX sent a request to portswitch the MTTY and it was denied or could not be executed.

For Format 5, essential unit found to be out of service (OOS).

For Format 6, REX could not open the specified file to output the REX report.

For Format 7, REX received a sigterm signal and is terminating.

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For Format 8, REX found an OOS unit with a controlling unit that is an IOP. This is a condition to signal a minor alarm.

3. VARIABLE FIELD DEFINITIONS

a = Name and number of the essential unit found to be OOS.

b = Name of the output file for REX report.

4. ACTION TO BE TAKEN

For Format 1, this report can be ignored if the application does not wish to receive the message from the UNIX® RTR REX process.

For Format 2, check the status of IOP subunits and portswitches (ROP and MTTY). Verify that a portswitch can be executed.

For Format 3, check to see if a manual portswitch can be requested.

For Format 4, check to see if a manual portswitch can be requested. Also check the states of the IOP subunits.

For Formats 5 and 8, request a restore on the hardware unit or community. No further action is required if the restore is successful. If the hardware unit or community failed the restore, manual action is required to diagnose, repair, and restore the hardware unit or community to service.

For Format 6, determine if the specified file system is full and remove unneeded files.

For Format 7, no action is required.

5. ALARMS

This alarm is either a manually-requested report or is automatically-generated for information only.

If a minor alarm occurs, take action as indicated in the report.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 28.
Format 2 has an OMDB key of 29.
Format 3 has an OMDB key of 30.
Format 4 has an OMDB key of 31.
Format 5 has an OMDB key of 32.
Format 6 has an OMDB key of 33.
Format 7 has an OMDB key of 27.
Format 8 has an OMDB key of 468 for UNIX® RTR R1.5 only,
and 473 for UNIX® RTR R6 and later.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
OP:OOS
SW:PORTSW
```

ID . . . . . REPT-REX,SUM
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . REX

1. FORMAT

```
REPT REX SUMMARY {IN PROGRESS |COMPLETED}
TIME    EQUIPMENT ID    RESULT    RET    STATE
a    b c [d e]   f     [g]   h
```

2. REASON FOR OUTPUT

To report a summary of routine exercise (REX) results for all hardware units that were exercised.

3. VARIABLE FIELD DEFINITIONS

a = Local time (hours, minutes, and seconds) when the exercise of the unit finished.

b = Unit name.

c = Unit number.

d = Subunit name.

e = Subunit number.

f = Result of exercising the specified unit, as follows:

- ABT — Diagnostics were aborted.
- ATP — All tests passed.
- CATP — Conditional ATP.
- ERR — Error return code received from maintenance input request administrator (MIRA).
- FAULT — Unit was excessively faulty.
- INH — REX was inhibited for this unit.
- MAN — Unit was removed manually.
- NODGN — No diagnostic phases exist for this unit.
- NRPY — No reply received from MIRA.
- NTR — No tests were run.
- OOS — Unit was out of service (OOS) and could not be exercised.
- PORTSW — Could not portswitch.
- STF — Some tests failed.
- TIMEOUT — Timeout occurred.

g = Return code. Possible return codes are:

- 2 — Request inhibited.
- 3 — MIRA out of buffers.

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4 — MIRA cannot spawn diagnostic monitor (DIAMON) program.
5 — Duplicate request already in queue.
6 — Request aborted by `STOP:DMQ` or `STP:DMQ` request.
7 — Internal problem; request aborted.
8 — Remove attempt failed.
9 — Restore attempt failed.

h = The state of the unit after REX exercised it:

`ACT` — Active.
`GROW` — Grow state.
`INIT` — Initializing.
`OFL` — Off-line.
`OOS` — Out of service.
`STBY` — Standby.
`UNAV` — Unavailable.
`UNEQUIP` — Unequipped.

NOTE: This variable field reflects the state of the unit when the exercise of the unit finished, which may not be the current state of the unit. If external events result in the removal of a unit (that is, manually removed, removed from a fault, softswitch, etc.) after REX has exercised it, the new state is not reflected in this variable.

4. ACTION TO BE TAKEN

If any units failed diagnostics or were left out of service, manual action is required to restore them.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 26.

Input Messages
`ALW:DMQ`
`ALW:REX`
`INH:DMQ`
`INH:REX`
`OP:DMQ`
`OP:REXINH`
`STOP:DMQ`
`STP:DMQ`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
ALW-DMQ
ALW-REX
INH-DMQ
INH-REX
OP-DMQ
OP-REXINH
REPT-DMQ
STOP-DMQ
STP-DMQ
```

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-RMF
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT RMF` *a* [*b*]

2. REASON FOR OUTPUT

To report that the recovery message formatter (RMF) encountered an error condition while attempting to output an error or postmortem recovery message.

3. VARIABLE FIELD DEFINITIONS

a = Error code specifying the error condition detected. Possible error codes are:

`1` — Premature end of file (EOF) detected on /dev/pmem.
`2` — File /dev/pmem could not be opened.
`3` — Plant measurement library could not be opened.
`4` — Could not attach to plant measurement database.
`5` — Could not retrieve plant measurement record.
`6` — Could not update plant measurement record.
`7` — Seek error on file /dev/pmem.
`8` — Read error on file /dev/pmem.
`9` — Could not open intermediate file to spool message.
`10` — Could not spool intermediate file.
`11` — Spooled orphaned intermediate file.
`12` — Bad interrupt type read from erslot.

If *a* = `3`,

b = Error code returned by plib call. Printed only if a premature EOF was detected.

If *a* = `9` or `10`,

b = OMDB key of the postmortem dump or error slot which could not be spooled.

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If *a* = 11,

b = Sequence number of the postmortem dump or error logfile "presumed to have been orphaned" that will be spooled. The contents of the logfile will be appended to one of the system logfiles (ERLOG, MEMLOG, PMLOG) and printed on the receive-only printer (ROP). The information in the logfile may be a duplication of information already spooled and likely not current.

If *a* = 12,

b = Data printed for error may be incorrect.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 403.

ID . . . . . REPT-RMTGETTY
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has nine formats.

[1] `REPT RMTGETTY UNABLE TO ACCESS ECD FOR` *a*

[2] `REPT RMTGETTY CANNOT READ GETTY RECORD FOR` *a*

[3] `REPT RMTGETTY UNABLE TO CHANGE DIRECTORY TO` *b*

[4] `REPT RMTGETTY FAILED TO EXECUTE` *c*

[5] `REPT RMTGETTY FAILED TO OPEN` *d*

[6] `REPT RMTGETTY CHANID FOUND IN LOGDEV RECORD`

[7] `REPT RMTGETTY UNABLE TO RETRIEVE LCHAN FROM ENVIRONMENT`

[8] `REPT RMTGETTY UNABLE TO RETRIEVE TERMINAL OPTIONS FROM APH`

[9] `REPT RMTGETTY CANNOT READ LOGDEV RECORD FOR` *d*

2. REASON FOR OUTPUT

To inform the craftsperson that the RMTGETTY process has encountered an error while trying to process initialization information for a device. This message will appear on the originating device only.

3. VARIABLE FIELD DEFINITIONS

a = Teletypewriter (TTY) device against which the RMTGETTY is executing.

b = The directory which the RMTGETTY could not access.

c = Pathname of the process to be executed.

d = Special device file for which the problem occurred.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

If Format 1 or 2 is printed, verify that the getty record in the equipment configuration database (ECD) for the indicated TTY device is correct.

If Format 3 is printed, verify that the directory indicated in the getty record exists.

If Format 4 is printed, verify that the process which could not be executed exists and is executable.

If Format 5, 6, 7, 8, or 9 is printed, or the errors persist after taking actions indicated above, seek technical assistance.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 312.

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ID . . . . . REPT-ROP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT,MAIPR

1. FORMAT

This message has three formats.

[1] `REPT ROP` *a* {`ERROR` *b* [*c*] [`COMPL CODE` *d*] |
`UNIDENTIFIED RESPONSE WD1=`*e* `WD2=`*f*}

[2] `REPT ROP` *a* `STARTED`

[3] `REPT ROP` *a* `STOPPED`

2. REASON FOR OUTPUT

Format 1 reports a receive-only printer (ROP) related software or hardware error.

Format 2 reports that the ROP has changed state from standby (STBY) to active (ACT). A ROP will change to ACT state when DTR is ON.

Format 3 reports that the ROP has changed state from ACT to STBY. A ROP will change to STBY state when data terminal ready (DTR) is OFF.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies, in hexadecimal notation, the point within the input/output driver (IODRV) where a software or hardware error was detected. See output IOP Appendix F, `IOP-APPF`.

c = Character string giving more information about the error identified in *b* above. Refer to IOP Appendix F, `IOP-APPF` for additional explanation.

d = Hardware error type, in hexadecimal notation. See output IOP Appendix A, `IOP-APPA`.

e = First word of an unidentified completion report.

f = Second word of an unidentified completion report.

4. ACTION TO BE TAKEN

Format 1 indicates error conditions that could cause the removal of a unit. Any removed unit should be repaired and then restored to service.

Formats 2 and 3 are informational messages and indicate that the ROP has changed states.

SEE PROPRIETARY NOTICE ON COVER PAGE

These messages are output when the currently active ROP changes state to STBY, and the currently standby ROP changes state to ACT. An active ROP will change state to STBY when powered off, and a standby ROP will change state to ACT when powered up. No action is necessary.

5. ALARMS

Format 1 has no alarm. The automatically-generated report is for information only.

Formats 2 and 3 have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 208.
Formats 2 and 3 have an OMDB key of 308.

Output Appendixes
`IOP-APPA`
`IOP-APPF`

Input Messages
`CLR:IODRV`
`DGN:MTTYC`
`RMV:ROP`
`RST:ROP`
`SW:PORTSW`

Output Messages
`RCVRY-IOP`
`RCVRY-ROP`
`RCVRY-MTTYC`
`REPT-IOP`
`REPT-RCVRY,IOP`
`REPT-RCVRY,ROP`
`REPT-RCVRY,MTTYC`
`SW-PORTSW`

Practice 254-301-115 *Teletypewriter/Printer System Description Lucent Technologies 3B20D Computer*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-RTS
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `REPT RTS PORT CONNECT FAILURE`

[2] `REPT RTS CANNOT ATTACH TO ECD`

[3] `REPT RTS FAILED TO  GET UCB`

[4] `REPT RTS UNABLE TO GET UCB`

2. REASON FOR OUTPUT

To report conditions that occurred during the execution of the real-time status (RTS) report process.

3. VARIABLE FIELD DEFINITIONS

See System Error Codes Output Appendix, `SYSERR-APP`.

4. ACTION TO BE TAKEN

If Format 1 is printed, check the status of port 17 using the `OP:STATUS;PORTS` input message.

If Format 2 is printed, check the permission of the /dev/ecd file.

If Format 3 is printed, there is a software coding error, and/or a wrong record ID. Submit an operational trouble report accompanied by a printout and any additional information.

If Format 4 is printed, check for the unit by displaying page 102. Unit missing status indicates the unit for which RTS was unable to get the unit control block (UCB).

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 307.

Output Appendix
SYSERR-APP

Input Message
OP:STATUS;PORTS

Output Message
OP-STATUS,PORTS

ID . . . . . REPT-SCC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT,MAIPR

1. FORMAT

This message has four formats.

[1] `REPT SCC` *a* {`ERROR` *b* [`COMPLETED CODE` *c*] |
`UNIDENTIFIED RESPONSE WD1=`*d* `WD2=`*e*}

[2] `REPT SCC` *a* `STARTED`

[3] `REPT SCC` *a* `STOPPED`

[4] `REPT SCC` *a* `WARNING LAST LINK IN DUPLEX LINK GROUP BEING REMOVED`

2. REASON FOR OUTPUT

Format 1 reports a switching control center (SCC) related software or hardware error.

Format 2 reports that the SCC has changed state from standby (STBY) to active (ACT). An SCC will change to ACT state when the level 2 connection is established, the data link is in information transfer state, and the other SCC is not in the ACT state.

Format 3 reports that the SCC has changed state from ACT to STBY. An SCC will change to STBY state when the level 2 connection is terminated, and the level 1 connection remains established.

Format 4 reports that the last available link in a duplex link group is being removed from service.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies, in hexadecimal notation, the point within the input/output driver (IODRV) where a software or hardware error was detected. See output IOP Appendix F, `IOP-APPF`.

c = Hardware error type, in hexadecimal notation. See output IOP Appendix A, `IOP-APPA`.

d = First word of an unidentified completion report.

e = Second word of an unidentified completion report.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

Format 1 indicates error conditions that could cause the removal of a unit. Any removed unit should be repaired and then restored to service.

Formats 2 and 3 are informational messages and indicate that the SCC has changed states. These messages are output if a problem is sensed on the active SCC. The AM will then initiate recovery on the SCC with a problem, and start the mate SCC by changing its state from STBY to ACT.

Format 4 indicates that no data transmission can take place over the link facility due to the removal of the last available link in a duplex link group. One of the links in the group should be repaired and then restored to service.

5. ALARMS

Format 1 has no alarm. The automatically-generated report is for information only.

Formats 2 and 3 have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

Format 4 has a major alarm. A major alarm may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 208.
Formats 2 and 3 have an OMDB key of 308.
Format 4 has an OMDB key of 590.

Output Appendixes
IOP-APPA
IOP-APPF

Input Messages
CLR:IODRV
DGN:MTTYC
RMV:SCC
RST:SCC

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
RCVRY-IOP
RCVRY-MTTYC
RCVRY-TTY
REPT-IOP
REPT-MTTYC
REPT-RCVRY,IOP
REPT-RCVRY,MTTYC
```

Practice 254-341-120 *Interface and Integrity Facility DMERT/UNIX® RTR Operating System Lucent Technologies 3B20D Computer*

ID . . . . . REPT-SCSD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT SCSD a {ERROR b [COMPL CODE c] |
  UNIDENTIFIED RESPONSE WD1=d WD2=e}
```

2. REASON FOR OUTPUT

To report a scanner and signal distributor (SCSD) related software or hardware error.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies point within input/output driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. See output IOP Appendix F, `IOP-APPF`.

c = Hardware error type, in hexadecimal notation. See output IOP Appendix A, `IOP-APPA`.

d = First word of an unidentifiable completion report.

e = Second word of an unidentifiable completion report.

4. ACTION TO BE TAKEN

These error messages indicate error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 208.

Output Appendixes
`IOP-APPA`
`IOP-APPF`

Input Messages
`DGN:SCSDC`
`OP:SCSD`
`RMV:SCSDC`
`RST:SCSDC`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
DGN-SCSD
OP-SCSD
RMV-SCSDC
RST-SCSDC
```

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

ID . . . . . REPT-SCSDA-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `REPT SCSDA FAULT CODE` *a* [`VIRTUAL ADDRESS` *b*]

[2] `REPT SCSDA ERROR CODE` *c* [`UNIT` *d*] [`PID` *e*] [`RID` *f*] [`FAULT CODE` *a*]

[3] `REPT SCSDA UNIDENTIFIED MESSAGE FROM` *e* `TYPE` *g*

2. REASON FOR OUTPUT

To report the occurrence of either a scanner and signal distributor (SCSD) administrator (SCSDA) related software error, or of an abnormal event.

Format 1 reports the receipt of an SCSDA fault code. (A message with supplemental data may accompany this report.)

Format 2 reports an SCSDA error.

Format 3 reports the receipt of an unrecognized message sent to the SCSDA.

3. VARIABLE FIELD DEFINITIONS

a = Fault code. See DFC Output Appendix I, `DFC-APPI`.

b = Virtual address, in hexadecimal notation, where the fault occurred within the SCSDA.

c = SCSDA error code, in hexadecimal notation. One of the following:

- `50` — SCSDA cannot process request. Unit is unknown.
- `51` — Unrecognized fault code.
- `52` — Received notification that client process has terminated. Reason for termination is unknown.
- `53` — Message overload condition exists for an SCSDA client process.
- `54` — Cannot initialize an SCSD controller (SCSDC) unit.
- `55` — SCSDA is in an improper state to process the request.

d = Unit number of SCSDC, in decimal notation.

e = Process number of SCSDA client, in decimal notation.

f = Record identification (RID) of SCSDC, in hexadecimal notation.

g = Unrecognized message type, in hexadecimal notation.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

If Format 1 is output or the SCSDA error is 51, collect receive-only printer (ROP) and forward to the service support organization for all fault types.

Error type 50 is caused by either corruption of the SCSDA unit save area or the maximum number of SCSDC units that can be monitored by the SCSDA has been exceeded. Enter into the equipment configuration database (ECD) to verify that the unit is equipped and the RID was not corrupted in the memory of the SCSDA. If the RID is not corrupted and the maximum number of SCSDC units by the SCSDA has not been exceeded, regrow the SCSDC unit. In either case, report that an error has occurred to the service support organization.

For error 52, restart the terminated client process if it was not automatically restarted. If this error persists, contact the service support organization.

Error 53 indicates that an SCSDA client is no longer processing messages, or has received too many messages at one time before it can dequeue them. This error indicates that the client has exceeded the maximum number of allowable messages on its queue and returned the message to the SCSDA. In either case, the conditions result with incomplete information because these messages have been returned to the SCSDA and are not re-sent. If this error persists, take corrective action, such as restarting the client process, and contact the service support organization.

Error 54 verifies that the unit is in-service. Correct as required.

Error 55 will be corrected by the SCSDA and additional action is not required. The SCSDA will re-initialize the unit.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 165.

Output Appendix
DFC-APPI

Input Messages

```
DGN:SCSDC
OP:OOS
OP:SCSD
RST:SCSDC
```

Output Message

```
REPT-SCSDC
```

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ID . . . . . REPT-SCSDA-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `REPT SCSDA FAULT CODE` *a* [`VIRTUAL ADDRESS` *b*]

[2] `REPT SCSDA ERROR CODE` *c* [`UNIT` *d*] [`PID` *e* [`UID` *f*]] [`RID` *g*] [`FAULT CODE` *a*]

[3] `REPT SCSDA UNIDENTIFIED MESSAGE FROM` *e* `TYPE` *h*

2. REASON FOR OUTPUT

To report the occurrence of either a scanner and signal distributor (SCSD) administrator (SCSDA) related software error, or of an abnormal event.

Format 1 reports the receipt of an SCSDA fault code. (A message with supplemental data may accompany this report.)

Format 2 reports an SCSDA error.

Format 3 reports the receipt of an unrecognized message sent to the SCSDA.

3. VARIABLE FIELD DEFINITIONS

a = Fault code. See DFC Output Appendix I, `DFC-APPI`.

b = Virtual address, in hexadecimal notation, where the fault occurred within the SCSDA.

c = SCSDA error code, in hexadecimal notation. One of the following:

- `50` — SCSDA cannot process request. Unit is unknown.
- `51` — Unrecognized fault code.
- `52` — Received notification that client process has terminated. Reason for termination is unknown.
- `53` — Message overload condition exists for an SCSDA client process.
- `54` — Cannot initialize an SCSDC unit.
- `55` — SCSDA is in an improper state to process the request.

d = Unit number of SCSDC, in decimal notation.

e = Process number of SCSDA client, in decimal notation.

f = Utility ID number of SCSDA client, in hexadecimal notation.

g = Record identification (RID) of SCSDC, in hexadecimal notation.

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h = Unrecognized message type, in hexadecimal notation.

4. ACTION TO BE TAKEN

If Format 1 is output or the SCSDA error is 51, collect receive-only printer (ROP) and forward to the service support organization for all fault types.

Error type 50 is caused by either corruption of the SCSDA unit save area or the maximum number of SCSDC units that can be monitored by the SCSDA has been exceeded. Enter into the equipment configuration database (ECD) to verify that the unit is equipped and the RID was not corrupted in the memory of the SCSDA. If the RID is not corrupted and the maximum number of SCSDC units by the SCSDA has not been exceeded, regrow the SCSDC unit. In either case, report that an error has occurred to the service support organization.

For error 52, restart the terminated client process if its utility identification (UID) is reported and if it was not automatically restarted. If the UID is not reported, then the process with process identification (PID) is not known to the SCSDA. The process no longer exists. If this error persists, contact the service support organization.

Error 53 indicates that an SCSDA client is no longer processing messages, or has received too many messages at one time before it can dequeue them. This error indicates that the client has exceeded the maximum number of allowable messages on its queue and returned the message to the SCSDA. In either case, the conditions result with incomplete information because these messages have been returned to the SCSDA and are not re-sent. If this error persists, take corrective action, such as restarting the client process, and contact the service support organization.

Error 54 verifies that the unit is in-service. Correct as required.

Error 55 will be corrected by the SCSDA and additional action is not required. The SCSDA will re-initialize the unit.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 165.

Output Appendix
DFC-APPI

Input Messages
DGN:SCSDC
OP:OOS
OP:SCSD
RST:SCSDC

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message
REPT-SCSDC

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ID . . . . . REPT-SCSDC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

[1] `REPT SCSDC` *a* {`ERROR` *b* [`COMPLETED CODE` *c*] |
`UNIDENTIFIED RESPONSE WD1=`*d* `WD2=`*e*}

[2] `REPT SCSDC` *a* `FLASH RAM VERSION X'`*f*

2. REASON FOR OUTPUT

Format 1 reports a scanner and signal distributor controller (SCSDC) related software or hardware error.

Format 2 is requested by diagnostics and output prior to the update of flash RAM on the unit.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies the point, in hexadecimal notation, within the input/output driver (IODRV) where a software or hardware error was detected. See output IOP Appendix F, `IOP-APPF`.

c = Hardware error type, in hexadecimal notation. See output IOP Appendix A, `IOP-APPA`.

d = First word of an unidentifiable completion report.

e = Second word of an unidentifiable completion report.

f = Peripheral controller flash RAM version number.

4. ACTION TO BE TAKEN

Format 1 is an error message that indicates error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

For Format 2, no action is necessary unless the controller is not acting normal, or cannot be restored. Contact service organization with the flash RAM version number that was used.

5. ALARMS

None. This automatically-generated report is for information only.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Key(s)
Format 1 has an OMDB key of 208.
Format 2 has an OMDB key of 226.

Output Appendix(es)
IOP-APPA
IOP-APPF

Input Message(s)
DGN:SCSDC
RMV:SCSDC
RST:SCSDC

Output Message(s)
RCVRY-IOP
RCVRY-SCSDC
REPT-IOP
REPT-RCVRY,IOP
REPT-RCVRY,SCSDC

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

ID . . . . . REPT-SDL
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR, SPERR

1. FORMAT

This message has four formats.

[1] `REPT SDL` *a* { `[ERROR]` *b* [*c*] `[COMPL CODE` *d*] |
`UNIDENTIFIED RESPONSE WD1=`*e* `WD2=`*f* }

[2] `REPT SDL` *a* `WARNING LAST LINK IN DUPLEX LINK GROUP BEING REMOVED`

[3] `REPT SDL` *a* `STARTED`

[4] `REPT SDL` *a* `STOPPED`

2. REASON FOR OUTPUT

Format 1 reports a synchronous data link (SDL) related software or hardware error or an unauthorized attempt to use a secure dial-up data link.

Format 2 reports that the last available link in a duplex link group is being removed from service.

Format 3 reports that the SDL has changed state from standby (STBY) to active ACT). An SDL will change to ACT state when the level 2 connection is established, and the data link is in information transfer state.

Format 4 reports that the SDL has changed state from ACT to STBY. An SDL will change to STBY state when the level 2 connection is terminated, and the level 1 connection remains established.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Can be either hexadecimal notation or a message.

The hexadecimal notation identifies the point within the input/output driver (IODRV) where a software or hardware error was detected. See output IOP Appendix F, `IOP-APPF`.

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The message identifies which security check failed in an attempt to use a secure dial-up link:

```
INCORRECT PASSWORD
INCORRECT PASSWORD DESTINATION ADDRESS LENGTH
INCORRECT PASSWORD DESTINATION IDENTIFICATION
INCORRECT PASSWORD LINK IDENTIFICATION
INCORRECT PASSWORD MODIFIER
INCORRECT PASSWORD ORIGINATION ADDRESS LENGTH
INCORRECT PASSWORD ORIGINATION IDENTIFICATION
INSUFFICIENT PASSWORD INFORMATION
PASSWORD NOT REQUIRED INHIBITED
PASSWORD PACKET NOT RECEIVED
PASSWORD REQUIRED
PASSWORD TEST BIT ON
PASSWORD VALID INHIBITED
UNKNOWN PASSWORD MODIFIER 2
UNKNOWN PASSWORD MODIFIER 7
UNKNOWN PASSWORD MODIFIER 10
UNKNOWN PASSWORD MODIFIER 11
UNKNOWN PASSWORD MODIFIER 15
```

c = Character string giving more information about the error (in hexadecimal notation) identified in *b* above. Refer to IOP Appendix F, `IOP-APPF` for additional explanation.

d = Hardware error type, in hexadecimal notation. See output IOP Appendix A, `IOP-APPA`.

e = First word of an unidentified completion report.

f = Second word of an unidentified completion report.

4. ACTION TO BE TAKEN

For format 1, the software or hardware error messages indicate error conditions that could cause the removal of a unit. Any removed unit should be repaired and then restored to service.

Or format 1 indicates the unauthorized attempt to use a secure dial-up link message by someone who is not authorized access to the computer system through a synchronous data link. Notify the person in charge of security for the computer system.

For format 2, removal of the last available link in a duplex link group indicates that no data transmission can take place over the link facility. One of the links in the group should be repaired and then restored to service.

Formats 3 and 4 are informational messages and indicate that the SDL has changed states. No action is necessary.

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5. ALARMS

Format 1 has no alarm. The automatically-generated report is for information only.

Format 2 has a major alarm. A major alarm may not be service affecting, but take immediate action as indicated in the report.

Formats 3 and 4 have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Key(s)
Format 1 has OMDB keys of 143 and 208.
Format 2 has an OMDB key of 590.
Formats 3 and 4 have an OMDB key of 308.

Output Appendix(es)
`IOP-APPA`
`IOP-APPF`

Input Message(s)
`CLR:IODRV`
`DGN:SDLC`
`RMV:SDL`
`RST:SDL`

Output Message(s)
`RCVRY-IOP`
`RCVRY-SDL`
`RCVRY-SDLC`
`REPT-IOP`
`REPT-SDLC`
`REPT-RCVRY,IOP`
`REPT-RCVRY,SDL`
`REPT-RCVRY,SDLC`

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Practice 254-302-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 2 and Model 3 Computers*

Practice 254-302-832 *Lucent Technologies 3B20D Model 2 Computer Common System Trouble Clearing (PDS Formats)*

Practice 254-302-842 *Lucent Technologies 3B20D Model 2 Computer Common System Trouble Clearing (MML Formats)*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-SDLC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

[1] `REPT SDLC` *a* {`ERROR` *b* [`COMPL CODE` *c*] |
`UNIDENTIFIED RESPONSE WD1=`*d* `WD2=`*e*}

[2] `REPT SDLC` *a* `CODE VERSION X'`*f*

[3] `REPT SDLC` *a* `FLASH RAM VERSION X'`*g*

2. REASON FOR OUTPUT

Format 1 reports a synchronous data link controller (SDLC) related software or hardware error.

Format 2 is output during the restoration of the unit.

Format 3 is requested by diagnostics and output prior to the update of flash RAM on the unit.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies the point, in hexadecimal notation, within the input/output driver (IODRV) where a software or hardware error was detected. See Output IOP Appendix F, `IOP-APPF`.

c = Hardware error type, in hexadecimal notation. See Output IOP Appendix A, `IOP-APPA`.

d = First word of an unidentifiable completion report.

e = Second word of an unidentifiable completion report.

f = Peripheral controller pump code version number.

g = Peripheral controller flash RAM version number.

4. ACTION TO BE TAKEN

Format 1 is an error message that indicates error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

For Formats 2 and 3, no action is necessary unless the controller and/or its subdevices are not acting normal, or cannot be restored. Contact the service organization with the code version number and/or flash RAM version number that was used.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key(s)
Format 1 has an OMDB key of 208.
Formats 2 and 3 have an OMDB key of 226.

Output Appendix(es)
`IOP-APPA`
`IOP-APPF`

Input Message(s)
`CLR:IODRV`
`DGN:SDLC`
`RMV:SDLC`
`RST:SDLC`

Output Message(s)
`RCVRY-IOP`
`RCVRY-SDLC`
`REPT-IOP`
`REPT-RCVRY,IOP`
`REPT-RCVRY,SDLC`

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-SDLRTC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `REPT SDLRTC` *a*

[2] `REPT SDLRTC RESTORE MESSAGE FOR` *b c* `SENT TO MIRA`

[3] `REPT SDLRTC COMPLETED RESTORE OF SDLS`

[4] `REPT SDLRTC UNABLE TO GET ECD SEGMENTS, ERRNO` *d*

2. REASON FOR OUTPUT

Format 1 reports an equipment configuration database (ECD) connection or retrieval failure.

Format 2 reports that a message was sent to maintenance input request administrator (MIRA) to restore a synchronous data link unit or a synchronous data link controller.

Format 3 reports the completion of sequencing through the ECD for restoring synchronous data link units/controllers.

Format 4 reports a failure in obtaining a database segment for the synchronous data link restore tool communications protocol handler (SDLRTC) process.

3. VARIABLE FIELD DEFINITIONS

a = Identifies which type of database failure was encountered. Includes one of the following messages:

`UNABLE TO ATTACH TO ECD`

`UNABLE TO GET ECDORG RECORD`

`UNABLE TO OPEN SEQUENCE`

`INVALID UCBRID`

```
UNABLE TO GET IOP RECORD

UNABLE TO GET SDL RECORD

UNABLE TO GET CPOPT RECORD
```

b = Unit name.

c = Unit number.

d = Error code. See System Error Codes Output Appendix, SYSERR-APP.

4. ACTION TO BE TAKEN

For Format 1, obtain technical assistance. For Formats 2 and 3, no action is required. For Format 4, check error code to determine action.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 586.

Output Appendix
SYSERR-APP

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-SDLRTN
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `REPT SDLRTN` *a*

[2] `REPT SDLRTN RESTORE MESSAGE FOR` *b c* `SENT TO MIRA`

[3] `REPT SDLRTN COMPLETED RESTORE OF SDLS`

[4] `REPT SDLRTN UNABLE TO GET ECD SEGMENTS, ERRNO` *d*

2. REASON FOR OUTPUT

Format 1 reports an equipment configuration database (ECD) connection or retrieval failure.

Format 2 reports that a message was sent to maintenance input request administrator (MIRA) to restore a synchronous data link unit or a synchronous data link controller.

Format 3 reports the completion of sequencing through the ECD for restoring synchronous data link units or controllers.

Format 4 reports a failure in obtaining a database segment for the synchronous data link restore tool network protocol handler (SDLRTN) process.

3. VARIABLE FIELD DEFINITIONS

a = Identifies which type of database failure was encountered. Includes one of the following messages:

`UNABLE TO ATTACH TO ECD`

`UNABLE TO GET ECDORG RECORD`

`UNABLE TO OPEN SEQUENCE`

`INVALID UCBRID`

```
UNABLE TO GET IOP RECORD

UNABLE TO GET SDL RECORD

UNABLE TO GET NPHOPT RECORD
```

b = Unit name.

c = Unit number.

d = Error code. See System Error Codes Output Appendix, SYSERR-APP.

4. ACTION TO BE TAKEN

For Format 1, seek technical assistance.

For Formats 2 and 3, no action is required.

For Format 4, check the error code to determine what action is needed.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
Formats 1 through 4 have an OMDB key of 586.

Output Appendix
SYSERR-APP

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-SHLGETTY
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has eight formats.

[1] `REPT SHLGETTY UNABLE TO ACCESS ECD FOR` *a*

[2] `REPT SHLGETTY CANNOT READ GETTY RECORD FOR` *a*

[3] `REPT SHLGETTY CANNOT READ TTBPT RECORD FOR` *a*

[4] `REPT SHLGETTY CANNOT SET TERMINAL OPTIONS FOR` *a*
`ERRNO` *b*

[5] `REPT SHLGETTY UNABLE TO CHANGE DIRECTORY TO` *c*

[6] `REPT SHLGETTY FAILED TO EXECUTE` *d*

[7] `REPT SHLGETTY FAILED TO OPEN` *e*

[8] `REPT SHLGETTY UNABLE TO RETRIEVE LCHAN FROM ENVIRONMENT`

2. REASON FOR OUTPUT

To report a failure that occurred during shlgetty process execution.

3. VARIABLE FIELD DEFINITIONS

a = Teletypewriter (TTY) device which shlgetty is executing against.

b = UNIX® RTR error code. See System Error Codes Output Appendix, `SYSERR-APP`.

c = The idir file suffix entry CFTSHL executing directory.

d = Pathname of the process which could not be executed.

e = Special device file which could not be opened.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

If Format 1, 2, 3, or 4 is printed, verify that the getty and ttopt records in the equipment configuration database (ECD) for the indicated TTY device are correct.

If Format 5 is printed, check that the directory indicated in the getty record exists.

If Format 6 is printed, verify that the process which could not be created exists and is executable.

If Format 7 or 8 is printed, or the error persists after taking action indicated above, seek technical assistance.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
Formats 1 - 8 have an OMDB key of 312.

Output Appendix
SYSERR-APP

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-SIM
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT SIM UTILITY IDS OF PROCESSES KILLED DURING CFT INIT
 a  a  a  a  a  a  a  a
```

2. REASON FOR OUTPUT

To report the utility IDs of processes killed during a level 2 or level 3 craft initialization.

3. VARIABLE FIELD DEFINITIONS

a = Utility ID in hexadecimal of a killed process.

4. ACTION TO BE TAKEN

This message lists the utility IDs of processes killed during a craft initialization. To identify the process associated with a utility ID, execute `IOP:STATUS;PROCESS,ALL` after the recovery of the craft interface. If some processes were not restarted after a craft initialization, refer to Table 4-7 in the *UNIX® RTR Operating System Software Troubleshooting Guide* for the utility IDs to specific processes.

5. ALARMS

None.

6. REFERENCES

Input Message
`OP:STATUS;PROCESS`

ID . . . . . REPT-SIMCHK
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . SIM

1. FORMAT

`REPT SIMCHK` *a* [*b*]

2. REASON FOR OUTPUT

To report error conditions that occurred while executing the system integrity monitor (SIM).

3. VARIABLE FIELD DEFINITIONS

a = System integrity error code. Code numbers labeled with an "*" indicate conditions that may result in a system initialization phase unless software checks are inhibited.

*1	system initialization failure
2	system initialization status message received with unknown process number
*12	unexpected fault received by SIM
101	audit control subsystem initialization failure
102	audit record initialization error
103	The system integrity output formatter (SIOF) program is not running. Some output messages were lost.
104	Routine audit scheduling was not allowed
121	failure to get an audit record from the equipment configuration database (ECD) using its record ID (RID)
122	failure to update an audit record in the ECD
123	failure to open a keyed sequence of audit records in the ECD
124	failure to get a record in a sequence of audit records
125	failure to get an audit record using the audit name and member number
126	failure to read the SIM control record
127	failure to update the SIM control record
128	failure to open a sequence of audit instance records in the ECD
129	failure to get a record in a sequence of audit instance records
130	failure to get an audit instance record using its RID
131	failure to update an audit instance record in the ECD
132	failure to get an audit instance record using its instance name and the RID of the associated audit record
141	audit marked active in its ECD record when it is not running

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142 invalid message received from the process manager or the utility manager regarding an audit process
143 audit reply received from an inactive audit
144 timeout occurred for an inactive audit
145 invalid reply received from an active audit
146 system integrity output formatter (SIOF) output buffer overflow; some audit output messages were lost
147 failure to find one and only one audit process for the specified utility ID
148 audit error report received from an inactive audit
149 invalid request to inform an audit process when the audit's ECD record is modified
150 invalid request to run or stop an audit
151 audit blocking condition cleared because it was invalid
152 failure to create a transient audit process
153 unable to take recovery action for an audit failure
154 audit inhibited by SIM because it could not be run, timed out, died or was faulted while correcting errors
155 routine audit scheduling malfunctioned and is being reinitialized. All routine audits are temporarily inhibited.
156 failure to reinitialize routine audit scheduling after it had malfunctioned
157 routine audit scheduling has been temporarily inhibited because SIOF is not running
158 failure to reinitialize routine audit scheduling after SIOF stopped running
159 unknown error category in an error report from an audit process
161 audit system reinitializing due to error found in kernel level audit scheduling
162 audit system reinitializing due to error found for a kernel level audit timeout
163 audit system reinitializing due to error found for a routine supv-level audit timeout
164 audit system reinitializing due to error found for a requested supv-level audit timeout
165 audit system reinitializing because SIM received a reply from an inactive audit
166 audit system reinitializing because SIM received a timeout for a non-running audit
167 audit system reinitializing because SIM received a raw data report from an inactive audit
168 audit system reinitializing because SIM received an unexpected fault
169 audit system reinitializing because SIM found eligible audits not dispatched
181 failure to access an audit record in the plant measurements database

SEE PROPRIETARY NOTICE ON COVER PAGE

182	failure to create an audit record in the plant measurements database
183	failure to open the plan measurements database
190	audit has taken too much time to execute
*200	failure of the application integrity monitor (AIM) process to reset the application sanity timer within the timeout interval
201	failure to activate or de-activate the application sanity timer
202	AIM was not connected to port PT_AIM when a PHASE 0 was requested
203	failure to change craft initialization inhibit status
206	AIM not connected to port PT_AIM for reception of overload faults
207	AIM not connected to port PT_AIM for soft-switch request
208	AIM not connected to port PT_AIM for notification of CU switch completion
209	faulty AIM port during craft initialization
210	faulty IOP port during craft initialization
211	AIM not connected to port PT_AIM for notification of completion of diverge request
212	AIM not connected to port PT_AIM for converge request
213	AIM not connected to port PT_AIM for notification of completion of converge request
300	unrecognized acknowledgement message received by SIM
301	unrecognized USRACK message received by SIM
306	message with invalid type received by SIM
307	unrecognized MSFAULT message received by SIM
310	unrecognized operating system trap (OST) entry received by SIM
401	failure to respond to a request from another process for information about the most recent system initialization
602	overload status change
605	kernel-level overload monitor process failed to initialize
606	supervisor-level overload monitor process failed to initialize

b = Up to three words of optional hexadecimal data, associated with specific error conditions.

Optional Hexadecimal Data

Error	Code Hexadecimal Data

1 Boot progress indicators, from left to right (hexadecimal digit 0 to hexadecimal digit 7):

Hex Digit	Process
0	File manager.
1	Disk driver.
2	Process manager.
3	Error interrupt handler.
4	Capability manager.
5	Scheduler.
6	Utility manager.
7	Memory manager.

If a boot process indicator message is received from a kernel process, the appropriate hexadecimal digit is set to 1; otherwise, the hexadecimal digit remains at 0.

2 Process number of process sending the message (ms_from).

12 Fault code, followed by the virtual address within SIM at which the fault occurred.

102 ECD RID of the audit record that was not initialized.

121 RID used in attempt to get an audit record from the ECD.

122 RID used in attempt to update an audit record in the ECD.

126 RID of the SIM control record (as specified in the ECDORG record).

127 RID of the SIM control record (as specified in the ECDORG record).

128 If not zero, the RID of the audit record for which a sequence of instance records could not be opened.

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Optional Hexadecimal Data *(continued)*

Error	Code Hexadecimal Data
130	RID used in attempt to get an audit instance record from the ECD.
131	RID used in attempt to update an audit instance record in the ECD.
132	RID of the audit record for which an associated instance record could not be gotten from the ECD.
141	RID of the audit record in error.
142	RID returned in the message (ms_ident).
143	RID of the audit record, as specified in the reply.
144	RID of the audit record, as specified in the timeout identification.
145	RID of the audit record, as specified in the reply.
147	Utility ID (pcode) of the process, as specified in the audit record.
148	RID of the audit record, as specified in the error report.
149	RID of the audit record, as specified in the request, followed by the process number from which the request was received.
150	RID of the audit record, as specified in the request.
151	RID of the audit instance record process number of the blocking process, and the elapsed time in milliseconds since the audit instance was blocked.
152	RID of the audit record for which the audit process was not created.
153	RID of the recovery audit that could not be run.

SEE PROPRIETARY NOTICE ON COVER PAGE

Optional Hexadecimal Data *(continued)*

Error	Code Hexadecimal Data
154	RID of the audit that was inhibited.
159	RID of the audit whose error was reported.
300	Message identity (ms_ident).
306	Message type (ms_type).
307	The fault code specified in the message.
310	The invalid operating system trap (OST) number, followed by the process number of the calling process.
602	Overload fault code: A9 — Kernel process memory overflow. Swappable main memory is at minimum size. AC — Message buffer overload cleared. AD — Message buffer 70% full. AE — Message buffer 90% full. 81 — Spooler output process overload cleared. 82 — Spooler output process overload. 85 — Data link input buffer overload cleared. 86 — Data link input buffer overload. 87 — Data link output buffer overload 88 — Data link output buffer

Optional Hexadecimal Data *(continued)*

Error Code	Hexadecimal Data

8B — IOP overload cleared.

8C — IOP command queue overloaded.

8D — An IOP was bootstrapped due to overload.

8F — Overload cleared on one disk file controller (DFC).

90 — A DFC is overloaded.

91 — File manager overload cleared.

92 — File manager overloaded.

95 — Supervisor / user level lockout cleared.

96 — Supervisor / user level process lockout.

97 — Timed entry overload cleared.

98 — Kernel process timed entries slow.

99 — Kernel level lockout cleared.

9A — Kernel level process lockout.

9C — Module 1 memory allocation reduced to 60%.

9D — Module 1 memory at 80% allocated (only for generics with EMM feature).

9E — Insufficient memory available to grant a memory allocation (module 1) (only for generics with EMM feature).

9F — DCT table overload cleared.

SEE PROPRIETARY NOTICE ON COVER PAGE

Optional Hexadecimal Data *(continued)*

Error Code	Hexadecimal Data

A0 — DCT table 70% full. For R6.3 and later, the DCT table is 85% full.

A1 — Dispatcher control table overflow.

A2 — SDE table overload cleared.

A3 — SDE table nearly full.

A4 — Segment descriptor table overflow.

A5 — Disk swap space overload cleared.

A6 — Disk swap space 80% full.

A7 — Memory overload cleared.

A8 — Kernel process memory has grown to within 1/4 megabyte of its maximum size. This has reduced the size of swappable memory to within 1/4 megabyte of its minimum size.

A9 — Kernel process memory overflow. Swappable main memory is at minimum size.

AC — Message buffer overload cleared.

AD — Message buffer 70% full.

AE — Message buffer 90% full.

4. ACTION TO BE TAKEN

For audit system initialization failures (error codes 101, 103, 104, 126, 127, 156, 158 and 183), seek technical assistance.

If the data printed with the output message includes an audit or instance RID, the audit name, member number and instance name associated with the RID may be found by using the OP:AUD input message with the ALL option. If the specified RID is not listed in the OP-AUD output message, the RID is invalid. If the error message is associated with a valid record, then an AUD output message may have been printed for the audit. If the audit aborted, the abort code printed in the output message will help in analyzing the failure.

For error code 141, use the STOP:AUD or STP:AUD input message to clear the audit record.

For error code 146, use the OP:STATUS;PROCESS input message to determine whether or not the SIOF program is running. The file name of SIOF is /etc/siof. If it is running, no further action is required. If it is not running, seek technical assistance to determine the cause of the problem and what additional action needs to be taken.

For failures that involve an audit process (error codes 147, 152, and 154), verify that a valid process file exists for that audit. For transient audits, the process file should be stored in directory /audprc and its file name should be listed in the audit's ECD record. Use the RCV:MENU;RCV3B input message to read the record. For quasi-killable audits, the process may be identified from its utility ID number (which is listed in the audit's ECD record), using Practice 254-301-815.

For error code 154, use the STOP:EXC;ANY or STP:EXC;ANY input message to terminate the audit process (if it is still running and is quasi-killable or transient). Then attempt to run the audit manually by using the AUD input command. If the problem does not recur, then use ALW:AUD to allow the audit.

For error code 159, use OP:AUD to identify the audit causing the problem. This error is due to a missing auderr form.

For error code 190, use OP:AUD to identify the audit causing the problem. There are two possible reasons for the audit taking too much time to execute: the audit may be incorrectly reporting actual time instead of CPU time or the audit may need to be broken down into several audits. Unless corrected, supervisor audit scheduling could be adversely affected resulting in the irregular scheduling of lower frequency level supervisor audits. A maximum of nine of these output messages will be printed in one 24-hour period of time.

A history of audit activity may be found in the most recent plant measurements report (REPT-OP,PMCR output message).

Additional information about the audit control subsystem may be found in the *System Maintenance Manual*.

If an overload monitor process failed to initialize (error codes 605 and 606), it may be executed manually with the EXC:ENVIR;PROC input message. The file names of these processes are /prc/klmon (kernel-level monitor) and /prc/supvprc (supervisor-level monitor).

5. ALARMS

This automatically-generated report is for information only. Action may or may not be required.

If a minor alarm occurs, take action as indicated in the report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys

This message has OMDB keys of 446, 447, and 448.

Input Messages

```
ALW:AUD
AUD:CUMEM
AUD:CUSTAT
AUD:ECD
AUD:FMGR
AUD:FSBLK
AUD:FSCMPT
AUD:FSLINK
AUD:MMGR
AUD:MSGBUF
AUD:PMS
AUD:PROAD
EXC:E;PROC
INH:AUD
INIT:ULARP
OP:AUD
OP:ST;PROC
STOP:AUD
STOP:EXC;ANY
STP:AUD
STP:EXC;ANY
RCV:MENU;RCVECD
```

Output Messages

```
AUD-CUMEM
AUD-CUSTAT
AUD-ECD
AUD-ECDOWN
AUD-FMGR1
AUD-FMGR2
AUD-FMGR3
AUD-FMGR4
AUD-FMGR5
AUD-FMGR6
AUD-FMGR7
AUD-FMGR8
AUD-FMGR9
AUD-FSBLK
AUD-FSCMPT
AUD-FSLINK
AUD-MMGR
AUD-MSGBUF
AUD-PMS
AUD-PROAD
OP-AUD
OP-ST,PROC
REPT-OP,PMCR
```

Practice 254-341-120 *Interface and Integrity Facility DMERT/UNIX® RTR Operating System Lucent Technologies 3B20D Computer*

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-SIND
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT SIND - SEGMENT INDEX TOO LARGE X'a
FAULTY UNIT:    CU b
TIME OF ERROR: c


            SAVE STATE
PA: ddddddd     PSW: eeeeeeee     PSBR: ffffffff     SSBR: gggggggg


                        GENERAL REGISTERS
 0: hhhhhhhh       1: hhhhhhhh       2: hhhhhhhh       3: hhhhhhhh
 4: hhhhhhhh       5: hhhhhhhh       6: hhhhhhhh       7: hhhhhhhh
 8: hhhhhhhh       9: hhhhhhhh       A: hhhhhhhh       B: hhhhhhhh
 C: hhhhhhhh       D: hhhhhhhh       E: hhhhhhhh       F: hhhhhhhh
UTILITY ID: iiiiiiii               PROCESS NUMBER: jjjjjjj
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

Microcode has detected a segment index too large for the segment being accessed.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Faulted control unit (CU) number.

c = Time in form `mm/dd/yy hh:mm:ss`.

d = The program address at the time of initialization (in hexadecimal). For software requested initializations this is the address of the PHASE OST and NOT the address where the problem was detected.

e = The processor status word (in hexadecimal). Among the information it contains are the execution level and the processor mode, i.e., kernel mode, kernel process, supervisor process, or user process. See *System Maintenance Manual*, Appendix P.

f = The contents of the primary segment base register (in hexadecimal).

g = The contents of the secondary segment base register (in hexadecimal).

SEE PROPRIETARY NOTICE ON COVER PAGE

h = The contents of the sixteen general purpose registers (in hexadecimal).

R9: argument pointer
RA: frame pointer
RB: stack pointer

i = Process utility id (in hexadecimal). See *System Maintenance Manual*, Process / Problem Table.

j = Process number (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Save the ERLOG output, note the UID of the process that was reported and inform the next level of support. This is a software problem and requires no diagnostic or board replacements.

5. ALARMS

None.

6. REFERENCES

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . REPT-SINV
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT SINV - SEGMENT INVALID X'a
FAULTY UNIT:    CU b
TIME OF ERROR: c


            SAVE STATE
PA: ddddddddd     PSW: eeeeeeee     PSBR: ffffffff     SSBR: gggggggg


          GENERAL REGISTERS
 0: hhhhhhhh       1: hhhhhhhh       2: hhhhhhhh       3: hhhhhhhh
 4: hhhhhhhh       5: hhhhhhhh       6: hhhhhhhh       7: hhhhhhhh
 8: hhhhhhhh       9: hhhhhhhh       A: hhhhhhhh       B: hhhhhhhh
 C: hhhhhhhh       D: hhhhhhhh       E: hhhhhhhh       F: hhhhhhhh
UTILITY ID: iiiiiiii               PROCESS NUMBER: jjjjjjj
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

A process has attempted to access a segment that is not in its segment table.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Faulted control unit (CU) number.

c = Time in form `mm/dd/yy hh:mm:ss`.

d = The program address at the time of initialization (in hexadecimal). For software requested initializations this is the address of the PHASE OST and NOT the address where the problem was detected.

e = The processor status word (in hexadecimal). Among the information it contains are the execution level and the processor mode, i.e., kernel mode, kernel process, supervisor process, or user process. See *System Maintenance Manual*, Appendix P.

f = The contents of the primary segment base register (in hexadecimal).

g = The contents of the secondary segment base register (in hexadecimal).

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h = The contents of the sixteen general purpose registers (in hexadecimal).

R9: argument pointer
RA: frame pointer
RB: stack pointer

i = Process utility id (in hexadecimal). See *System Maintenance Manual*, Process / Problem Table.

j = Process number (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Save the ERLOG output, note the UID of the process that was reported and inform the next level of support. This is a software problem and requires no diagnostic or board replacements.

5. ALARMS

None.

6. REFERENCES

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-SIOF,ERROR
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . AUDL

1. FORMAT

This message has 18 formats.

[1] `REPT SIOF ERROR - CANNOT OPEN INPUT FILE` *a*

[2] `REPT SIOF ERROR - CANNOT OPEN OUTPUT FILE` *a*

[3] `REPT SIOF ERROR - SIZEOF (`*b*`) NOT FACTOR OF PASSED SIZE`

[4] `REPT SIOF ERROR - CANNOT ADD SEGNUM X'`*c* `CODE` *d*

[5] `REPT SIOF ERROR - CANNOT SET VIRTUAL ADDRESS SEGNUM X'`*c*
`CODE` *d*

[6] `REPT SIOF ERROR - UNABLE TO ADD SEGMENT ID X'`*c* `CODE` *d*

[7] `REPT SIOF ERROR - INVALID SEG ID STAMP X'`*f*
`SEGID X'`*c* `PID X'`*g*

[8] `REPT SIOF ERROR - UNABLE TO FREE SEGMENT X'`*h*

[9] `REPT SIOF ERROR - UNABLE TO FIND AVAILABLE SEGMENT INDEX`

[10] `REPT SIOF ERROR - INVALID FORMAT TYPE X'`*i*

[11] `REPT SIOF ERROR - INVALID OUTPUT FORMAT TYPE X'`*j*

[12] `REPT SIOF ERROR - TOO MANY BLOCKS (`*k*`) RETURNED BY SIM`

[13] `REPT SIOF ERROR - INVALID ALARM LEVEL X'`*l* `SUBSTITUTING ' '`

[14] `REPT SIOF ERROR - INVALID SUPPLEMENTARY DATA`
`SEG_SIZE X'`*m* `OFFSET X'`*n*
`SSIZE X'`*o* `SFLAGS X'`*p*

[15] `REPT SIOF ERROR - INVALID SUPPLEMENTARY DATA FORMAT X'`*q*

[16] `REPT SIOF ERROR - CANNOT READ FILE` *a*

[17] `REPT SIOF ERROR - CANNOT WRITE FILE` *a*

SEE PROPRIETARY NOTICE ON COVER PAGE

2. REASON FOR OUTPUT

Format 1 indicates SIOF cannot open input file.

Format 2 indicates SIOF cannot open output file.

Format 3 indicates size of supplementary data block passed to SIOF is not an integral multiple of the structure to be formatted.

Format 4 indicates SIOF cannot add the segment containing the supplementary data to its address space.

Format 5 indicates SIOF cannot set the access permission modes on the segment virtual address.

Format 6 indicates SIOF cannot add segment ID to the process segment list.

Format 7 indicates the segment identity stamp does not match the audit supplementary data segment identity stamp.

Format 8 indicates SIOF cannot free the supplementary data segment.

Format 9 indicates SIOF cannot get a segment index in the segment list.

Format 10 indicates that SIOF does not recognize the supplementary data type.

Format 11 indicates that SIOF does not recognize the format type of the output message.

Format 12 indicates that the maximum number of the message which can be passed at one time from SIM to SIOF has been exceeded.

Format 13 indicates that an invalid alarm level has been specified for the audit report, and hence a space will be substituted.

Format 14 indicates that the supplementary data segment sent to SIOF is invalid.

Format 15 indicates that SIOF does not recognize the supplementary data format type.

Format 16 indicates that SIOF is unable to read the OMDB key from file.

Format 17 indicates that SIOF is unable to write first line of audit error report.

3. VARIABLE FIELD DEFINITIONS

a = Pathname of the file.

b = Name of the structure to be formatted.

c = Value of the segment ID.

d = Function return code.

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e = Memory module identifier.

f = Segment name identifier.

g = Process ID.

h = Segment index.

i = Invalid supplementary data format type passed to SIOF in a suptype field from audit process.

j = Invalid output format type passed to SIOF by SIM.

k = Number of blocks.

l = Alarm level.

m = Size of supplementary data segment.

n = Starting point in supplementary data segment of data.

o = Amount of supplementary data to be processed.

p = Location of status switch in supplementary data format.

r = Invalid supplementary data format passed to SIOF in a format field from audit process.

4. ACTION TO BE TAKEN

For all formats, send a copy of the message, including the previous page and the subsequent page, to the field support center. No corrective action by the user is possible.

5. ALARMS

This is a variable alarm to be supplied by the client.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 102.
Format 3 has an OMDB key of 100.
Format 4 has an OMDB key of 88.
Format 5 has an OMDB key of 87.
Format 6 has an OMDB key of 85.
Format 7 has an OMDB key of 97.
Format 8 has an OMDB key of 94.
Format 9 has an OMDB key of 83.
Format 10 has an OMDB key of 82.
Format 11 has an OMDB key of 80.
Format 12 has an OMDB key of 79.
Format 13 has an OMDB key of 81.
Format 14 has an OMDB key of 89.
Format 15 has an OMDB key of 98.
Formats 16 and 17 have an OMDB key of 101.

Practice 254-341-120 *Interface and Integrity Facility*
DMERT/UNIX® RTR Operating System
Lucent Technologies 3B20D Computer

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-SOP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . VAR

1. FORMAT

This message has four formats.

[1] `REPT SOP` *a* `OUTPUT MESSAGES DISCARDED FOR` *b*

[2] `REPT SOP DELETING OLDER HALF OF` *c*

[3] `REPT SOP INVALID OUTPUT REQUEST` *d e*
`Uid:` *f* `Logfile:` *c*
`Logflimit:` *g* `Request size:` *h*

[4] `REPT SOP CANNOT OPEN SCC CHANNEL`

2. REASON FOR OUTPUT

To report a spooler output process (SOP) related error or warning.

Format 1 indicates message loss because of spooler queue overflow for a particular device.

Format 2 indicates the log file became full and the older half of the log file has been deleted to allow for the storage of newly generated messages.

Format 3 indicates that an output report to be written to the named log file is larger than the maximum size of the log file.

Format 4 indicates a failure to open the output device that is associated with the switching control center (SCC).

3. VARIABLE FIELD DEFINITIONS

a = Number of output messages discarded due to spooler queue overflow.

b = Name of device.

c = Name of log file.

d = Character string "OMDB KEY" or null.

e = OMDB key number of the output report or null.

f = UID of the process requesting the output report.

h = Maximum size of the log file.

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i = Size of the requested output report.

4. ACTION TO BE TAKEN

For Format 1, if spooler queue overflow occurs repeatedly for the same device during normal operations, seek technical assistance. Otherwise, it may be necessary to increase the queue size for that device. Use the recent change and verify (RC/V) system to modify the "maxq" field of the "device" record for the device.

For Format 2, take no action.

For Format 3, use RC/V to increase the logflimit field in the device form for the named log file.

For Format 4, use RC/V to examine the ECD logdev record for the device and verify that the channel ID is specified correctly.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

For a minor alarm, take action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 2 has an OMDB key of 12.
Format 3 has an OMDB key of 715.
Format 4 has an OMDB key of 517.

Input Messages
`RCV:M;RCV3B`

ID . . . . . REPT-SPL,SYN
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT SPL SYNTAX ERROR` *a b*

2. REASON FOR OUTPUT

To report that an incorrectly formatted message was passed to the spoolf() function in the craft library.

3. VARIABLE FIELD DEFINITIONS

a = Error code specifying the error condition detected:

`0` — first $ in user control string missing
`-1` — teletypewriter (TTY) field too big (greater than eight characters)
`-2` — TTY size is maximum and first byte is not '-' (minus), or the contents of the string is a minus sign only
`-3` — NULL TTY is specified with no spooler options
`-4` — class not decimal
`-6` — class field too big (greater than 255)
`-7` — missing both TTY field and class field
`-8` — paction field was not 0 or two characters long
`-9` — timestamp type field too big (greater than one character)
`-10` — timestamp type field invalid
The timestamp type must be f (full time stamp), b (basic time stamp), or n (no time stamp).
`-11` — priority field not decimal
`-12` — priority field too big (greater than one character)
`-13` — priority value greater than seven (highest priority)
`-14` — ident field too big (greater than four characters)
`-15` — ident field not decimal
`-16` — type field too big (greater than four characters)
`-17` — type field not decimal
`-19` — user file does not exist or cannot be read
`-20` — user PID too big (greater than eight characters)
`-21` — user PID not decimal
`-22` — last $ in user control string missing
`-23` — invalid paction
`-24` — process number does not correspond to existing process
`-25` — send message to csop failed
`-26` — message is truncated by sendpw
`-27` — user file does not have full pathname

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b = Control string and text of message containing error.

4. ACTION TO BE TAKEN

Submit an operational trouble report with a printout of the REPT-SPL message.

5. ALARMS

None.

6. REFERENCES

None.

ID . . . . . REPT-SYSTEM
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
REPT SYSTEM IS IN MINIMUM CONFIGURATION MODE
```

2. REASON FOR OUTPUT

To remind the operator that the system is running in the minimum configuration mode.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Minimum configuration mode should only be used in extreme cases where the system will not stay up with the application running. It should only be used to diagnose or troubleshoot a system which will not recover by any other means, such as forcing configuration, inhibit options, or bootstrap options. Application software will not be started in the minimum configuration mode.

To return to full configuration mode, clear the MIN-CONFIG request on the emergency action page (EAI) of the maintenance terminal with an EAI command 33, then bootstrap the system with an EAI command 54.

5. ALARMS

Minor alarm. Take action as indicated in the report.

6. REFERENCES

OMDB Key
There is an OMDB key of 603.

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ID . . . . . REPT-TIME
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . TIME

1. FORMAT

`REPT TIME` *aa/bb/cc dd/ee/ff*

2. REASON FOR OUTPUT

To report the system time. This is performed by the real-time status (RTS) report process every hour on the hour.

3. VARIABLE FIELD DEFINITIONS

a = Month (01-12).

b = Day (01-31).

c = Year (00-99).

d = Hour (00-23).

e = Minute (00-59).

f = Second (00-59).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key
There is an OMDB key of 309.

ID . . . . . REPT-TLP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`REPT TLP ERROR` *a* [`PACK =` *b*] [`ERRNO =` *c*]

2. REASON FOR OUTPUT

To report an error condition in the trouble locating procedure (TLP) user process.

3. VARIABLE FIELD DEFINITIONS

a = Error condition:

- `1` — open equipment configuration database (ECD) failure
- `2` — close ECD failure
- `3` — ugucbn failure
- `4` — moving head disk (MHD) drive type not specified
- `5` — bad entry in pack location file
- `6` — pack location function failed

b = Circuit pack number obtained from trouble location database.

c = Error code returned by the failing functional call. See System Error Codes Output Appendix, `SYSERR-APP`.

4. ACTION TO BE TAKEN

If *a* = `1-4` an operating system function call is failing, seek technical assistance to clear the trouble.

If *a* = `5`, verify circuit pack number exists in unit's pack location file and verify that the index in the pack location file for the circuit pack number is valid. There is one pack location file for each unit in the directory `/diag/datatbl/tlp/misc`. The files are named:

```
p.cu.0_10
p.dfc.21_22
p.duic.28_30
p.iop.20_21
p.mhd.22_23
p.mtc.24_25
p.mttyc.27_28
p.scsdc.25_26
p.sdlc.28_29
p.ttyc.23_24
```

SEE PROPRIETARY NOTICE ON COVER PAGE

If the entry is correct, seek technical assistance.

If *a* = 6, verify that the model, mv, hv, and equipage values in the unit(s) unit control block (UCB) are correct, using recent change and verify (RC/V). If UCB(s) are correct, seek technical assistance.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key
This message has an OMDB key of 19.

Output Appendix
SYSERR-APP

Input Messages
DGN:CU
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:MHD
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
EX:CU
EX:DFC
EX:DUIC
EX:HSDC
EX:IOP
EX:LDPARM
EX:LOOP
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE
EX:SCSDC
EX:SDLC
EX:STEP
EX:STOP
EX:TTYC
RST:CU
RST:DFC
RST:DUI
RST:DUIC
RST:HSD
RST:HSDC

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```
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC
```

Output Message

```
ANALY-TLPFILE
```

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ID . . . . . REPT-TS,MCASE
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT TS-MCASE CHANNEL ADDRESS SEQUENCING ERROR X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e
HARDWARE STATUS REGISTER:   ffffffff
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

More that one input/output pulse point was active in the command to the channel.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

f = Hardware status register (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Run diagnostics on the processor encountering the fault.

5. ALARMS

None.

6. REFERENCES

Output Message
`DGN:CU`

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-TS,MCIORE
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT TS-MCIORE CHANNEL IO RESPONSE ERROR X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e
HARDWARE STATUS REGISTER:    ffffffff
REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

More than one channel responded to an input/output address.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

f = Contents of the hardware status register (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Run diagnostics on the processor encountering the fault.

5. ALARMS

None.

6. REFERENCES

Output Message
`DGN:CU`

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ID . . . . . REPT-TTY
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has three formats.

[1] `REPT TTY` *a* {`ERROR` *b* [*c*] [`COMPLETED CODE` *d*] |
`UNIDENTIFIED RESPONSE WD1=`*e* `WD2=`*f*}

[2] `REPT TTY` *a* `STARTED`

[3] `REPT TTY` *a* `STOPPED`

2. REASON FOR OUTPUT

Format 1 reports a teletypewriter (TTY) related software or hardware error.

Format 2 reports that the TTY has changed state from standby (STBY) to active (ACT). A TTY will change to ACT state when data terminal ready (DTR) is ON.

Format 3 reports that the TTY has changed state from ACT to STBY. A TTY will change to STBY state when DTR is OFF.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies, in hexadecimal notation, the point within the input/output driver (IODRV) where a software or hardware error was detected. See output IOP Appendix F, `IOP-APPF`.

c = Character string giving more information about the error identified in *b* above. Refer to IOP Appendix F, `IOP-APPF` for additional explanation.

d = Hardware error type, in hexadecimal notation. See output IOP Appendix A, `IOP-APPA`.

e = First word of an unidentified completion report.

f = Second word of an unidentified completion report.

4. ACTION TO BE TAKEN

Format 1 indicates error conditions that could cause the removal of a unit. Any removed unit should be repaired and then restored to service.

Formats 2 and 3 are informational messages and indicate that the TTY has changed states.

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An active TTY will change state to STBY when powered off, and a standby TTY will change state to ACT when powered up. No action is necessary.

5. ALARMS

Format 1 has no alarm. The automatically-generated report is for information only.

Formats 2 and 3 have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 208.
Formats 2 and 3 have an OMDB key of 308.

Output Appendixes
```
IOP-APPA
IOP-APPF
```

Input Messages
```
CLR:IODRV
DGN:TTYC
RMV:TTY
RST:TTY
```

Output Messages
```
RCVRY-IOP
RCVRY-TTYC
REPT-IOP
REPT-TTYC
REPT-RCVRY,IOP
REPT-RCVRY,TTYC
```

Practice 254-301-115 *Teletypewriter/Printer System Description Lucent Technologies 3B20D Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-TTYC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

[1] `REPT TTYC` *a* {`ERROR` *b* `[COMPLETED CODE` *c*`]` |
`UNIDENTIFIED RESPONSE WD1=`*d* `WD2=`*e*}

[2] `REPT TTYC` *a* `CODE VERSION X'`*f*

[3] `REPT TTYC` *a* `FLASH RAM VERSION X'`*g*

2. REASON FOR OUTPUT

Format 1 reports a teletypewriter controller (TTYC) related software or hardware error.

Format 2 is output during the restoration of the unit.

Format 3 is requested by diagnostics and output prior to the update of flash RAM on the unit.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies the point, in hexadecimal notation, within the input/output driver (IODRV) where a software or hardware error was detected. See output IOP Appendix F, `IOP-APPF`.

c = Hardware error type, in hexadecimal notation. See output IOP Appendix A, `IOP-APPA`.

d = First word of an unidentifiable completion report.

e = Second word of an unidentifiable completion report.

f = Peripheral controller pump code version number.

g = Peripheral controller flash RAM version number.

4. ACTION TO BE TAKEN

Format 1 is an error message that indicates error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

For Formats 2 and 3, no action is necessary unless the controller and/or its subdevices are not acting normal, or cannot be restored. Contact the service organization with the code version number and/or flash RAM version number that was used.

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5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Key(s)
Format 1 has an OMDB key of 208.
Formats 2 and 3 have an OMDB key of 226.

Output Appendix(es)
IOP-APPA
IOP-APPF

Input Message(s)
CLR:IODRV
DGN:TTYC
RMV:TTYC
RST:TTYC

Output Message(s)
RCVRY-IOP
RCVRY-TTYC
REPT-IOP
REPT-RCVRY,IOP
REPT-RCVRY,TTYC

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-ULARP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . ULARP

1. FORMAT

This message has 19 formats.

[1] `REPT ULARP ECD ACCESS FAILED`

[2] `REPT ULARP OPEN SEQUENCE FAILED`

[3] `REPT ULARP FORK FAILED TEN TIMES` *a*

[4] `REPT ULARP FORK FAILED THEN SUCCEEDED` *a*

[5] `REPT ULARP CHILD TERMINATED EXECFAIL` *a b*

[6] `REPT ULARP CHILD TERMINATED UFATAL` *a b*

[7] `REPT ULARP TOO MANY ARGUMENTS` *a*

[8] `REPT ULARP NO CHILD PROCESSES EXIST`

[9] `REPT ULARP RUN COMMAND FAILED` *a*

[10] `REPT ULARP PROCESS RESTARTED TOO MANY TIMES` *a b*

[11] `REPT ULARP ATTEMPTING TO RESTART` *a b*

[12] `REPT ULARP ATTEMPTING CRAFT INIT`

[13] `REPT ULARP ATTEMPTING TO RE-EXECUTE`

[14] `REPT ULARP CRAFT INIT COMPLETED`

[15] `REPT ULARP UPDATE FAILED` *a*

[16] `REPT ULARP ADOPT FAILED` *a b*

[17] `REPT ULARP CHILD TERMINATED STATFAIL` *a b*

[18] `REPT ULARP CHILD FOUND DEAD WITHOUT ACCOMPANYING SIGNAL` *a b*

[19] `REPT ULARP CHILD EXEC ABORTED DUE TO DIOP` *a*

SEE PROPRIETARY NOTICE ON COVER PAGE

2. REASON FOR OUTPUT

To report error information or actions as the result of ULARP child process or run command execution.

3. VARIABLE FIELD DEFINITIONS

a = Record name.

b = Terminated process ID.

4. ACTION TO BE TAKEN

If Formats 4 or 11 through 14 are printed, no action is required.

If Formats 1, 2, or 15 are printed, database access problems are indicated. Contact your technical assistance organization.

If Format 9 is printed, use the `OP:LOG` input message to read the logfile ULARP and find the error report with the same record ID number. Using the record name from the `OP:LOG` output message, get the equipment configuration database (ECD) record with recent change and verify (RC/V). First make sure the record contains correct information. Then check that a file exists with the pathname that is in the record, and that is is executable. If the file does not exist, copy in a correct version.

If a large number of processor recovery message (PRM)s with this step number and function code are printed, then the UNIX® shell may not be working. Check for the existence of the file `/bin/sh`. If it exists, it should have 755 permissions. If the file does not exist, copy in a correct version. If the reason for the command failure is not apparent, contact you technical assistance center.

Once the cause of the problem has been solved, enter the `INIT:ULARP` input message. This will cause ULARP to re-execute the run command(s) that failed.

If Format 3 is printed, enter an `INIT:ULARP` input message. If the error is repeated, contact your technical assistance center.

If Formats 5, 16, or 17 are printed, use the `OP:LOG` input message to read the logfile ULARP and find the error report with the same utility ID number. Using the record name from the `OP:LOG` output message, get the ECD record with RC/V. First make sure the record contains correct information. Then check that a file exists with the pathname that is in the record, and that is is executable. If the file does not exist, copy in a correct version. Once the cause of the problem has been solved, enter the `INIT:ULARP` input message. This will cause ULARP to re-execute the process(es) that failed.

If Formats 6 or 10 are printed, use the `OP:LOG` input message to read the logfile `ULARPLOG` and find the error report with the same utility ID. Using the record name from the OP LOG output message, get the ECD record with RC/V. Make sure the record contains correct information, because there could be something wrong with the parameters passed to the process. If the reason for the process failure is not apparent, contact you technical assistance center. After the problem has been resolved, enter the `INIT:ULARP` input message to re-execute the process.

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If Format 7 is printed, use the OP:LOG input message to read the logfile ULARPLOG and find the error report with the same record ID number. Using the record name from the OP:LOG output message, get the ECD record with RC/V. First make sure that the record contains the correct information. Then check that a file exists with the pathname that is in the record, and that it is executable. If the file does not exist, copy in a correct version. After the information in the database record has been corrected, the process may be started by entering the INIT:ULARP input message.

If Format 8 is printed, use RC/V to examine the ULARP records in the full configuration ECD. For each ULARP child process, check that a file exists, and that it is executable. After replacing the erroneous files or repairing the ECD records, reboot in full configuration. If that procedure is not successful, bootstrap on backup root, and follow normal procedures for restoring the primary root file system.

If Format 18 is printed, no action is required. ULARP has discovered a child that has died but it failed to receive the death of child signal. Ularp is now restarting the process.

If Format 19 is printed, no action is required. A child of ULARP died while the system was in disk-independent operation and no execution was attempted for the child.

5. ALARMS

This automatically-generated report is for information only. Action may or may not be required.

6. REFERENCES

Input Messages
DEL:LOG
OP:LOG

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-UNIX,INIT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT,VAR

1. FORMAT

This message has three formats.

[1] `REPT UNIX INIT ERRNO` *a* `CHANID` *b* [*c*]

[2] `REPT UNIX INIT CANNOT MOUNT` *d* `ERRNO` *f*

[3] `REPT UNIX INIT CANNOT MOUNT` *d* `READ ONLY MOUNTING` *e* `ERRNO` *f*

2. REASON FOR OUTPUT

To report a UNIX® `init` process-related error.

Format 1 indicates the process is failing to bring up a terminal. The device name will not be present if the process is failing before it has learned the name from the equipment configuration database (ECD).

Format 2 indicates the process is failing to mount a file system.

Format 3 indicates the process is failing to mount a file system in a read-only mode, and is now attempting to mount the primary/backup file system.

3. VARIABLE FIELD DEFINITIONS

a = Errors associated with the UNIX® init process:

- `0x11` — Init could not add the ECD segments to its address space.
- `0x12` — Init could not attach to the ECD.
- `0x13` — Init could not read the ECD org record.
- `0x21` — Init could not read the unit control block (UCB) record for the maintenance teletypewriter (MTTY).
- `0x22` — Init could not read the ciopt record for the emergency action interface (EAI).
- `0x23` — Init could not read the eaopt record for the EAI.
- `0x31` — Init could not set up a cursor to step through the records in the ECD.
- `0x32` — Init could not get a database record.
- `0x33` — Init was passed a bad channel ID.
- `0x41` — Init could not read the mdct record for the device.
- `0x42` — Init could not read the getty record for the device.
- `0x43` — Init could not read the UCB record for the device.
- `0x44` — Init could not read the ciopt record for the device.

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`0x45` — Init could not read the ttopt record for the device.
`0x46` — The device type in the mdct record for the device is bad.
`0x47` — The transmission speed in the ttopt record for the device is bad.
`0x51` — Init could not start ULARP.
`0x52` — Init could not start the appropriate getty.
`0x53` — Init could not open the device file.

b = The channel ID sent to the INIT process.

c = The name of the device. INIT will print this only if it has found a logdev record for the channel ID.

d = The name of the file system.

e = The name of the primary/backup file system.

f = System error number. See System Error Codes Output Appendix, SYSERR-APP.

4. ACTION TO BE TAKEN

For Format 1, if error code `0x11, 0x12, 0x31,` or `0x32` is printed, seek technical assistance. If error code `x13, 0x21, 0x22-0x33,` or `0x41-0x47` is printed, check the appropriate record(s) in the ECD. If error code `0x51` or `0x52` is printed, check the appropriate process to make sure that it exists and is executable. If error code `0x53` is printed, create the appropriate device file.

For Format 2, seek technical assistance.

5. ALARMS

None. This automatically-generated report is for information only.

Critical alarm. Take immediate action as indicated in the report. Seek technical assistance if needed.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 245.
Formats 2 and 3 have an OMDB key of 596.

Output Appendix
SYSERR-APP

Practice 254-341-100 *File System Software Subsystem Description 3B20D Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . REPT-VIRTUAL,ADDR
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . None

1. FORMAT

```
REPT VIRTUAL ADDRESS OUT OF RANGE X'a
ONLINE CU: b
FAULTY UNIT: c d
TIME OF ERROR: e


            SAVE STATE
PA: gggggggg     PSW: hhhhhhhh     PSBR: iiiiiii     SSBR: jjjjjjj


          GENERAL REGISTERS
 0: kkkkkkkk      1: kkkkkkkk      2: kkkkkkkk      3: kkkkkkkk
 4: kkkkkkkk      5: kkkkkkkk      6: kkkkkkkk      7: kkkkkkkk
 8: kkkkkkkk      9: kkkkkkkk      A: kkkkkkkk      B: kkkkkkkk
 C: kkkkkkkk      D: kkkkkkkk      E: kkkkkkkk      F: kkkkkkkk
UTILITY ID: lllllll              PROCESS NUMBER: mmmmmmmm

REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

Microcode has determined that a virtual address is not mappable in a processed address space.

3. VARIABLE FIELD DEFINITIONS

a = The sequence number of the report (in hexadecimal).

b = Active control unit (CU) number.

c = Unit name.

d = Member number.

e = Time in form `mm/dd/yy hh:mm:ss`.

g = The program address at the time of error interrupt (in hexadecimal). For software requested initializations this is the address of the PHASE OST and NOT the address where the problem was detected.

h = The processor status word (in hexadecimal). Among the information it contains are the execution level and the processor mode, i.e., kernel mode, kernel process, supervisor process, or user process. See *System Maintenance Manual*, Appendix P.

i = The contents of the primary segment base register (in hexadecimal).

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j = The contents of the secondary segment base register (in hexadecimal).

k = The contents of the sixteen general purpose registers (in hexadecimal).

R9: argument pointer
RA: frame pointer
RB: stack pointer

l = Process utility ID (in hexadecimal). See *System Maintenance Manual*, Process / Problem Table.

m = Process number (in hexadecimal).

z = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

4. ACTION TO BE TAKEN

Save the ERLOG output, note the UID of the process that was reported and inform the next level of support. This is a software problem and requires no diagnostic or board replacements.

5. ALARMS

None.

6. REFERENCES

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RFT-FDUMP
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

a
`RFT FDUMP COMPLETED`

2. REASON FOR OUTPUT

To report the completion of executing a `RFT:FDUMP` input message to dump the contents of a file.

3. VARIABLE FIELD DEFINITIONS

a = Contents of the file output only to the devices in message class maintenance.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message
`RFT:FDUMP`

ID . . . . . RMV-CU
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RMV CU` *a* [*b*][*c*]

2. REASON FOR OUTPUT

To report the result of executing a `RMV:CU` input message to remove a control unit (CU) from service.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`ABORTED` — Remove abnormally terminated due to a system error or a fault in the remove process.
`COMPLETED` — CU removed. If the CU was removed already, `COMPLETED` will still print because the remove process was run to initialize the CU.
`STOPPED` — Removal denied by the system or stopped manually.

If *b* = `STOPPED`,

c = Reason the remove was stopped.

`1` — Invalid unit name. Only the CU can be removed.
`5` — Removal denied by system.
`6` — Remove manually stopped.

4. ACTION TO BE TAKEN

If the remove was denied by the system, try switching CUs. If the result is `ABORTED`, determine what is wrong with the system. Interpret the `REPT-CURSTRMV,FAULT` output message if one occurred.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key
This message has an OMDB key of 308.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Message(s)

```
DGN:CU
RMV:CU
RST:CU
```

Output Message(s)

```
DGN-CU
REPT-CURSTRMV
RST-CU
```

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ID . . . . . RMV-DCI
GENERIC . . . . . UNIX RTR R21.3, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RMV DCI` *a* `COMPLETED`

[2] `RMV DCI` *a* `ABORTED` [*b*] [*c*]

[3] `RMV DCI` *a* `STOPPED` *d*

[4] `RMV DCI` *a* `TASK` *e* `MSG STARTED`

[5] `RMV DCI` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RMV DCI` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

These messages report the disposition of a request to remove a dual serial channel/computer interconnect (DCI) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Remove process error.
`X'2` — Driver error.
`[NULL]` — Remove denied by driver or configuration control (CONFIG).

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c = Error code:

For remove process error (*b* = X'1), see output DCI Appendix F, DCI-APPF.
For driver error (*b* = X'2), see output DCI Appendix A, DCI-APPA.

d = Error code. See output DCI Appendix G, DCI-APPG.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
DCI-APPA
DCI-APPF

Input Message(s)
RMV:DCI

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RMV-DFC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RMV DFC` *a b* [*c*][*d*]

2. REASON FOR OUTPUT

To report the disposition of a request to remove a disk file controller (DFC) from service. The removal request is either automatic, as a result of excessive errors, or manual. A manual DFC removal attempt can fail (`ABORTED` or `STOPPED`) or be successful (`COMPLETED`). An automatic removal is always successful.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Termination status:

`COMPLETED` — Unit removed.
`ABORTED` — Remove aborted.
`STOPPED` — Remove stopped.

If *b* = `ABORTED`,

c = Type of error:

`1` — Remove process error.
`2` — Driver error.
`[NULL]` — Remove denied by driver or CONFIG.

d = Error code:

For remove process error, see output DFC Appendix G, `IOP-APPG`.
For driver error, see output DFC Appendix A, `IOP-APPA`.

If *b* = `STOPPED`,

c = Error code. See output DFC Appendix H, `IOP-APPH`.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

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5. ALARMS

The alarm may have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

There is a major alarm for OMDB key 601.

6. REFERENCES

OMDB Keys
This message has OMDB keys of 308 and 601.

Output Appendix(es)
- DFC-APPA
- DFC-APPG
- DFC-APPH

Input Message(s)
- DGN:DFC
- RMV:DFC
- RMV:SBUS
- RST:DFC
- RST:SBUS

Output Message(s)
- DGN-DFC
- RMV-MHD
- RMV-SBUS
- RST-DFC

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ID . . . . . RMV-DUI
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RMV DUI` *a* `COMPLETED`

[2] `RMV DUI` *a* `ABORTED` [*b*] [*c*]

[3] `RMV DUI` *a* `STOPPED` *d*

[4] `RMV DUI` *a* `TASK` *e* `MSG STARTED`

[5] `RMV DUI` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RMV DUI` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to remove a direct user interface (DUI) subdevice from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Remove process error.
`X'2` — Driver error.
`[NULL]` — Remove denied by driver or configuration control (CONFIG).

c = Error code:

For remove process error (*b* = X'1), see output IOP Appendix H, IOP-APPH.
For driver error (*b* = X'2), see output IOP Appendix G, IOP-APPG.

d = Error code. See output IOP Appendix I, IOP-APPI.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was stopped or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
IOP-APPG
IOP-APPH
IOP-APPI

Input Message(s)
RMV:DUI

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ID . . . . . RMV-DUIC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RMV DUIC` *a* `COMPLETED`

[2] `RMV DUIC` *a* `ABORTED` [*b*] [*c*]

[3] `RMV DUIC` *a* `STOPPED` *d*

[4] `RMV DUIC` *a* `TASK` *e* `MSG STARTED`

[5] `RMV DUIC` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RMV DUIC` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to remove a direct user interface controller (DUIC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Remove process error.
`X'2` — Driver error.
`[NULL]` — Remove denied by driver or configuration control (CONFIG).

c = Error code:

For remove process error (*b* = `X'1`), see output IOP Appendix H, `IOP-APPH`.
For driver error (*b* = `X'2`), see output IOP Appendix G, `IOP-APPG`.

d = Error code. See output IOP Appendix I, `IOP-APPI`.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was stopped or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
`IOP-APPG`
`IOP-APPH`
`IOP-APPI`

Input Message(s)
`RMV:DUIC`

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RMV-HSD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RMV HSD` *a* `COMPLETED`

[2] `RMV HSD` *a* `ABORTED` [*b*] [*c*]

[3] `RMV HSD` *a* `STOPPED` *d*

[4] `RMV HSD` *a* `TASK` *e* `MSG STARTED`

[5] `RMV HSD` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RMV HSD` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to remove a high-speed synchronous data link (HSD) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Remove process error.
`X'2` — Driver error.
`[NULL]` — Remove denied by driver or configuration control (CONFIG).

c = Error code:

For remove process error (*b* = `X'1`), see output IOP Appendix H, `IOP-APPH`.
For driver error (*b* = `X'2`), see output IOP Appendix G, `IOP-APPG`.

d = Error code. See output IOP Appendix I, `IOP-APPI`.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
`IOP-APPG`
`IOP-APPH`
`IOP-APPI`

Input Message(s)
`RMV:HSD`

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ID . . . . . RMV-HSDC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RMV HSDC` *a* `COMPLETED`

[2] `RMV HSDC` *a* `ABORTED` [*b*] [*c*]

[3] `RMV HSDC` *a* `STOPPED` *d*

[4] `RMV HSDC` *a* `TASK` *e* `MSG STARTED`

[5] `RMV HSDC` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RMV HSDC` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to remove a high-speed synchronous data link controller (HSDC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Remove process error.
`X'2` — Driver error.
`[NULL]` — Remove denied by driver or configuration control (CONFIG).

c = Error code:

For remove process error (*b* = `X'1`), see output IOP Appendix H, `IOP-APPH`.
For driver error (*b* = `X'2`), see output IOP Appendix G, `IOP-APPG`.

d = Error code. See output IOP Appendix I, `IOP-APPI`.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
`IOP-APPG`
`IOP-APPH`
`IOP-APPI`

Input Message(s)
`RMV:HSDC`

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RMV-IOP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RMV IOP` *a* `COMPLETED`

[2] `RMV IOP` *a* `ABORTED` [*b*] [*c*]

[3] `RMV IOP` *a* `STOPPED` *d*

[4] `RMV IOP` *a* `TASK` *e* `MSG STARTED`

[5] `RMV IOP` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RMV IOP` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to remove an input/output processor (IOP) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Remove process error.
`X'2` — Driver error.
`[NULL]` — Remove denied by driver or configuration control (CONFIG).

c = Error code:

For remove process error (*b* = `X'1`), see output IOP Appendix H, `IOP-APPH`.
For driver error (*b* = `X'2`), see output IOP Appendix G, `IOP-APPG`.

d = Error code. See output IOP Appendix I, `IOP-APPI`.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
`IOP-APPG`
`IOP-APPH`
`IOP-APPI`

Input Message(s)
`RMV:IOP`

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RMV-MHD-A
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.17 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RMV MHD` *a* `COMPLETED`

[2] `RMV MHD` *a* `ABORTED [`*b*`] [`*c*`]`

[3] `RMV MHD` *a* `STOPPED` *d*

[4] `RMV MHD` *a* `TASK` *e* `MSG STARTED`

[5] `RMV MHD` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RMV MHD` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

These messages report the disposition of a request to remove a moving head disk (MHD) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped, and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Remove process error.
`X'2` — Driver error.
`[NULL]` — Remove denied by driver or configuration control (CONFIG).

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c = Error code:

For remove process error (*b* = X'1), see DFC Output Appendix G, APP-DFC-APPG.
For driver error (*b* = X'2), see DFC Output Appendix A, APP-DFC-APPA.

d = Error code. See DFC Output Appendix H, APP-DFC-APPH.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv-subsystem-generated messages have no alarms; the automatically-generated report is for information only.

The cft-subsystem-generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag-subsystem-generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
DFC-APPA
DFC-APPG
DFC-APPH

Input Message(s)
RMV:MHD
RMV:SBUS

Output Message(s)
DGN-MHD
RST-MHD

SEE PROPRIETARY NOTICE ON COVER PAGE

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ID . . . . . RMV-MHD-B
GENERIC . . . . . UNIX RTR R21.11 and R21.15
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RMV MHD` *a* `COMPLETED`

[2] `RMV MHD` *a* `ABORTED [`*b*`] [`*c*`]`

[3] `RMV MHD` *a* `STOPPED` *d*

[4] `RMV MHD` *a* `TASK` *e* `MSG STARTED`

[5] `RMV MHD` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RMV MHD` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

These messages report the disposition of a request to remove a moving head disk (MHD) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped, and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Remove process error.
`X'2` — Driver error.
`[NULL]` — Remove denied by driver or configuration control (CONFIG).

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c = Error code:

For remove process error (*b* = X'1), see DFC Output Appendix G, APP-DFC-APPG.
For driver error (*b* = X'2), see DFC Output Appendix A, APP-DFC-APPA.

d = Error code. See DFC Output Appendix H, APP-DFC-APPH.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv-subsystem-generated messages have no alarms; the automatically-generated report is for information only.

The cft-subsystem-generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag-subsystem-generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendixes
DFC-APPA
DFC-APPG
DFC-APPH

Input Messages
RMV:MHD
RMV:SBUS

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
DGN-MHD
RST-MHD

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ID . . . . . RMV-MT-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RMV MT` *a* `COMPLETED`

[2] `RMV MT` *a* `ABORTED` [*b*] [*c*]

[3] `RMV MT` *a* `STOPPED` *d*

[4] `RMV MT` *a* `TASK` *e* `MSG STARTED`

[5] `RMV MT` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RMV MT` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to remove a magnetic tape (MT) unit from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Remove process error.
`X'2` — Driver error.
`[NULL]` — Remove denied by driver or configuration control (CONFIG).

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c = Error code:

For remove process error (*b* = `X'1`), see output IOP Appendix H, `IOP-APPH`.
For driver error (*b* = `X'2`), see output IOP Appendix G, `IOP-APPG`.

d = Error code. See output IOP Appendix I, `IOP-APPI`.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
`IOP-APPG`
`IOP-APPH`
`IOP-APPI`

Input Message(s)
`RMV:MT`

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ID . . . . . RMV-MT-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

`RMV MT` *a b* [*c*][*d*]

2. REASON FOR OUTPUT

To report the disposition of a request to remove a magnetic tape (MT) from service. The removal request is either automatic, as a result of excessive errors, or manual. A manual MT removal attempt can fail (`ABORTED` or `STOPPED`), or be successful (`COMPLETED`). An automatic removal is always successful.

3. VARIABLE FIELD DEFINITIONS

a = MT member number.

b = Termination status:

`ABORTED` — Remove aborted.
`COMPLETED` — Unit removed.
`STOPPED` — Remove stopped.

If *b* = `ABORTED`

c = Type of error.

`1` — Diagnostic remove process error.
`2` — disk file controller (DFC) or input/output processor (IOP) driver error.
`[NULL]` — Remove denied by driver or CONFIG.

d = Error code.

If the MT is controlled by an IOP:
For a diagnostic restore process error (*c* = 1). See IOP Output Appendix H, `IOP-APPH`.
For an IOP driver error (*c* = 2). See IOP Output Appendix G, `IOP-APPG`.

If the MT is controlled by a DFC:
For a diagnostic restore process error (*c* = 1). See DFC Output Appendix G, `DFC-APPG`.
For a DFC driver error (*c* = 2). See DFC Output Appendix A, `DFC-APPA`.

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If *b* = STOPPED

c = Error code.

If the MT is controlled by an IOP, see IOP Output Appendix I, IOP-APPI.
If the MT is controlled by a DFC, see DFC Output Appendix H, DFC-APPH.

4. ACTION TO BE TAKEN

If the remove was denied or aborted, clear the source of trouble and attempt the remove again.

5. ALARMS

The pudrv-subsystem-generated messages have no alarm; the automatically-generated report is for information only.

The cft-subsystem-generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag-subsystem-generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem,
the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
DFC-APPA
DFC-APPG
DFC-APPH
IOP-APPG
IOP-APPH
IOP-APPI

Input Message(s)
RMV:MT

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ID . . . . . RMV-MTC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RMV MTC` *a* `COMPLETED`

[2] `RMV MTC` *a* `ABORTED` [*b*] [*c*]

[3] `RMV MTC` *a* `STOPPED` *d*

[4] `RMV MTC` *a* `TASK` *e* `MSG STARTED`

[5] `RMV MTC` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RMV MTC` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to remove a magnetic tape controller (MTC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Remove process error.
`X'2` — Driver error.
`[NULL]` — Remove denied by driver or configuration control

(CONFIG).

c = Error code:

For remove process error (*b* = X'1), see output IOP Appendix H, IOP-APPH.
For driver error (*b* = X'2), see output IOP Appendix G, IOP-APPG.

d = Error code. See output IOP Appendix I, IOP-APPI.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
IOP-APPG
IOP-APPH
IOP-APPI

Input Message(s)
RMV:MTC

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RMV-MTTY
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RMV MTTY` *a* `COMPLETED`

[2] `RMV MTTY` *a* `ABORTED` [*b*] [*c*]

[3] `RMV MTTY` *a* `STOPPED` *d*

[4] `RMV MTTY` *a* `TASK` *e* `MSG STARTED`

[5] `RMV MTTY` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RMV MTTY` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to remove a maintenance teletypewriter (MTTY) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Remove process error.
`X'2` — Driver error.
`[NULL]` — Remove denied by driver or configuration control

(CONFIG).

c = Error code:

For remove process error (*b* = X'1), See output IOP Appendix H, IOP-APPH.
For driver error (*b* = X'2), see output IOP Appendix G, IOP-APPG.

d = Error code. See output IOP Appendix I, IOP-APPI.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
IOP-APPG
IOP-APPH
IOP-APPI

Input Message(s)
RMV:MTTY

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RMV-MTTYC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RMV MTTYC` *a* `COMPLETED`

[2] `RMV MTTYC` *a* `ABORTED` [*b*] [*c*]

[3] `RMV MTTYC` *a* `STOPPED` *d*

[4] `RMV MTTYC` *a* `TASK` *e* `MSG STARTED`

[5] `RMV MTTYC` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RMV MTTYC` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to remove a maintenance teletypewriter controller (MTTYC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Remove process error.
`X'2` — Driver error.
`[NULL]` — Remove denied by driver or configuration control

(CONFIG).

c = Error code:

For remove process error (*b* = X'1), see output IOP Appendix H, IOP-APPH.
For driver error (*b* = X'2), see output IOP Appendix G, IOP-APPG.

d = Error code. See output IOP Appendix I, IOP-APPI.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
IOP-APPG
IOP-APPH
IOP-APPI

Input Message(s)
RMV:MTTYC

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ID . . . . . RMV-ROP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RMV ROP` *a* `COMPLETED`

[2] `RMV ROP` *a* `ABORTED` [*b*] [*c*]

[3] `RMV ROP` *a* `STOPPED` *d*

[4] `RMV ROP` *a* `TASK` *e* `MSG STARTED`

[5] `RMV ROP` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RMV ROP` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to remove a receive only printer (ROP) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Remove process error.
`X'2` — Driver error.
`[NULL]` — Remove denied by driver or configuration control (CONFIG).

c = Error code:

For remove process error (*b* = X'1), see output IOP Appendix H, IOP-APPH.
For driver error (*b* = X'2), see output IOP Appendix G, IOP-APPG.

d = Error code. See output IOP Appendix I, IOP-APPI.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
IOP-APPG
IOP-APPH
IOP-APPI

Input Message(s)
RMV:ROP

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ID . . . . . RMV-SBUS-A
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RMV SBUS` *a b* [*c*][*d*]

2. REASON FOR OUTPUT

To report the status of a request to remove a small computer system interface (SCSI) bus (SBUS) and all the associated moving head disks (MHDs) from service.

If the remove process was invoked via the `RMV SBUS` poke on the data file system access (DFSA) display page during disk independent operation (DIOP) mode, a `REPT-DKDIP;MESSAGE` message will precede the output message line.

3. VARIABLE FIELD DEFINITIONS

a = SBUS member number.

b = Status of request:

`ABORTED`	— The remove is aborted.
`COMPLETED`	— The unit is removed.
`ERROR`	— An error is encountered; the remove is aborted.
`NOT STARTED`	— The remove is not started.
`STARTED`	— The remove is started by DKDIP.
`STOPPED`	— The remove is stopped.

If *b* = `ABORTED`, `ERROR`, `NOT STARTED`, or `STOPPED`, and if the command is started via the `RMV SBUS` poke on the DFSA display page, then

c = one of the following DKDIP error codes:

`f09`	— failed to get the UCB of the unit by name
`f0d`	— unit is not ACTIVE, remove stopped
`f18`	— failed to open the device
`f20`	— see DKDRV error report on the ROP
`f57`	— message to driver port failed
`f60`	— message reception failure
`f63`	— process timed out waiting for message
`f67`	— failed to close special device file

d = Error code. See the System Error Codes Output Appendix, `SYSERR`.

If *b* = ABORTED and if ABORTED is done manually or a diagnostic fails, then

c = Type of error:

1 — Diagnostic remove process error.
2 — Driver/Disk remove process error.
[NULL] — Remove denied by driver or CONFIG.

d = Error code:

Diagnostic remove process. See DFC Output Appendix G, DFC-APPG.
Driver/Disk remove process. See DFC Output Appendix A, DFC-APPA.

If *b* = STOPPED and if STOPPED is done manually or a diagnostic fails, then

c = Error code. See DFC Output Appendix H, DFC-APPH.

4. ACTION TO BE TAKEN

If the remove did not complete successfully, correct the source of trouble and attempt the remove again. If the error condition persists, contact the next level of technical assistance.

5. ALARMS

The alarm may be a manually-requested report.

There is a manual alarm for OMDB key 154.

The alarm may have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

There is a major alarm for OMDB key 601.

6. REFERENCES

OMDB Keys
There are OMDB keys of 154, 308, and 601.

Output Appendix(es)
DFC-APPA
DFC-APPG
DFC-APPH
SYSERR

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Input Message(s)
RMV:SBUS

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ID . . . . . RMV-SBUS-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RMV SBUS` *a b* [*c*][*d*]

2. REASON FOR OUTPUT

To report the status of a request to remove a SCSI bus (SBUS) and all the associated moving head disks (MHDs) from service.

If the remove process was invoked via the `RMV SBUS` poke on the DFSA display page during disk independent operation (DIOP) mode, a `REPT-DKDIP,MESSAGE` message will precede the output message line.

3. VARIABLE FIELD DEFINITIONS

a = SBUS member number.

b = Status of request:

`ABORTED` — The remove is aborted.
`COMPLETED` — The unit is removed.
`ERROR` — An error is encountered; the remove is aborted.
`NOT STARTED` — The remove is not started.
`STARTED` — The remove is started by `DKDIP`.
`STOPPED` — The remove is stopped.

If *b* = `ABORTED`, `ERROR`, `NOT STARTED`, or `STOPPED`, and if the command is started via the `RMV SBUS` poke on the DFSA display page.

c = One of the following `DKDIP` error codes.

f09 — failed to get the UCB of the unit by name
f1b — unit is not active (ACT)
f1e — failed to open the device
f20 — see DKDRV error report on the ROP
f57 — message to driver port failed
f60 — message reception failure
f63 — process timed out waiting for message
f67 — failed to close special device file
ffe — aborted due to phase 1

d = Error code. See the System Error Codes Appendix, `SYSERR`.

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If *b* = ABORTED and if ABORTED is done manually or diagnostics fail.

c = Type of error.

1 — Diagnostic remove process error.
2 — Driver/Disk remove process error.
[NULL] — Remove denied by driver or CONFIG.

d = Error code.

Diagnostic remove process. See DFC Appendix G, DFC-APPG.
Driver/Disk remove process. See DFC Appendix A, DFC-APPA.

If *b* = STOPPED and if STOPPED is done manually or if diagnostics fail.

c = Error code. See DFC Appendix H, DFC-APPH.

4. ACTION TO BE TAKEN

If the remove did not complete successfully, correct the source of trouble and attempt the remove again. If the error condition persists, contact the next level of technical assistance.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

There is a major alarm for OMDB key 601.

6. REFERENCES

OMDB Keys
This message has OMDB keys of 308 and 601.

Output Appendix(es)
DFC-APPA
DFC-APPG
DFC-APPH
SYSERR

Input Message(s)
RMV:SBUS

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RMV-SCC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT,MAIPR

1. FORMAT

This message has six formats.

[1] `RMV SCC` *a* `COMPLETED`

[2] `RMV SCC` *a* `ABORTED` [*b*] [*c*]

[3] `RMV SCC` *a* `STOPPED` *d*

[4] `RMV SCC` *a* `TASK` *e* `MSG STARTED`

[5] `RMV SCC` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RMV SCC` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to remove a Switching Control Center (SCC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Remove process error.
`X'2` — Driver error.
`[NULL]` — Remove denied by driver or configuration control

(CONFIG).

c = Error code:

For remove process error (*b* = X'1), see the output IOP Appendix H, IOP-APPH.
For driver error (*b* = X'2), see the output IOP Appendix G, IOP-APPG.

d = Error code. See the output IOP Appendix I, IOP-APPI.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
IOP-APPG
IOP-APPH
IOP-APPI

Input Message(s)
RMV:SCC

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ID . . . . . RMV-SCSDC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT,MAIPR

1. FORMAT

This message has six formats.

[1] `RMV SCSDC` *a* `COMPLETED`

[2] `RMV SCSDC` *a* `ABORTED` [*b*] [*c*]

[3] `RMV SCSDC` *a* `STOPPED` *d*

[4] `RMV SCSDC` *a* `TASK` *e* `MSG STARTED`

[5] `RMV SCSDC` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RMV SCSDC` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to remove a scanner and signal distributor controller (SCSDC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Remove process error.
`X'2` — Driver error.
`[NULL]` — Remove denied by driver or configuration control

(CONFIG).

c = Error code:

For remove process error (*b* = X'1), see the output IOP Appendix H, IOP-APPH.
For driver error (*b* = X'2), see the output IOP Appendix G, IOP-APPG.

d = Error code. See the output IOP Appendix I, IOP-APPI.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal is denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
IOP-APPG
IOP-APPH
IOP-APPI

Input Message(s)
RMV:SCSDC

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ID . . . . . RMV-SDL
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT,MAIPR

1. FORMAT

This message has six formats.

[1] `RMV SDL` *a* `COMPLETED`

[2] `RMV SDL` *a* `ABORTED` [*b*] [*c*]

[3] `RMV SDL` *a* `STOPPED` *d*

[4] `RMV SDL` *a* `TASK` *e* `MSG STARTED`

[5] `RMV SDL` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RMV SDL` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to remove a synchronous data link (SDL) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Remove process error.
`X'2` — Driver error.
`[NULL]` — Remove denied by driver or configuration control

(CONFIG).

c = Error code:

For remove process error (*b* = X'1), see output IOP Appendix H, IOP-APPH.
For driver error (*b* = X'2), see output IOP Appendix G, IOP-APPG.

d = Error code. See output IOP Appendix I, IOP-APPI.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
IOP-APPG
IOP-APPH
IOP-APPI

Input Message(s)
RMV:SDL

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ID . . . . . RMV-SDLC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT,MAIPR

1. FORMAT

This message has six formats.

[1] `RMV SDLC` *a* `COMPLETED`

[2] `RMV SDLC` *a* `ABORTED` [*b*] [*c*]

[3] `RMV SDLC` *a* `STOPPED` *d*

[4] `RMV SDLC` *a* `TASK` *e* `MSG STARTED`

[5] `RMV SDLC` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RMV SDLC` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to remove a synchronous data link controller (SDLC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Remove process error.
`X'2` — Driver error.
`[NULL]` — Remove denied by driver or configuration control

(CONFIG).

c = Error code:

For remove process error (*b* = X'1), see output IOP Appendix H, IOP-APPH.
For driver error (*b* = X'2), see output IOP Appendix G, IOP-APPG.

d = Error code. See output IOP Appendix I, IOP-APPI.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
IOP-APPG
IOP-APPH
IOP-APPI

Input Message(s)
RMV:SDLC

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ID . . . . . RMV-TTY
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT,MAIPR

1. FORMAT

This message has six formats.

[1] `RMV TTY` *a* `COMPLETED`

[2] `RMV TTY` *a* `ABORTED` [*b*] [*c*]

[3] `RMV TTY` *a* `STOPPED` *d*

[4] `RMV TTY` *a* `TASK` *e* `MSG STARTED`

[5] `RMV TTY` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RMV TTY` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to remove a teletypewriter (TTY) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Remove process error.
`X'2` — Driver error.
`[NULL]` — Remove denied by driver or configuration control (CONFIG).

c = Error code:

For remove process error (*b* = X'1), see output IOP Appendix H, IOP-APPH.
For driver error (*b* = X'2), see output IOP Appendix G, IOP-APPG.

d = Error code. See output IOP Appendix I, IOP-APPI.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
IOP-APPG
IOP-APPH
IOP-APPI

Input Message(s)
RMV:TTY

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ID . . . . . RMV-TTYC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT,MAIPR

1. FORMAT

This message has six formats.

[1] `RMV TTYC` *a* `COMPLETED`

[2] `RMV TTYC` *a* `ABORTED` [*b*] [*c*]

[3] `RMV TTYC` *a* `STOPPED` *d*

[4] `RMV TTYC` *a* `TASK` *e* `MSG STARTED`

[5] `RMV TTYC` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RMV TTYC` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to remove a teletypewriter controller (TTYC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Remove process error.
`X'2` — Driver error.
`[NULL]` — Remove denied by driver or configuration control

(CONFIG).

c = Error code:

For remove process error (*b* = `X'1`), see output IOP Appendix H, `IOP-APPH`.
For driver error (*b* = `X'2`), see output IOP Appendix G, `IOP-APPG`.

d = Error code. See output IOP Appendix I, `IOP-APPI`.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
`IOP-APPG`
`IOP-APPH`
`IOP-APPI`

Input Message(s)
`RMV:TTYC`

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ID . . . . . RST-CU
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RST CU` *a b* [*c*]

2. REASON FOR OUTPUT

To report the status of executing a request to restore a control unit (CU) to standby status.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Request status:

- `ABORTED` — Restore abnormally terminated due to a system error or a fault in the restore process.
- `COMPLETED` — Restore successfully completed.
- `IN PROGRESS` — Restore is in progress.
- `STOPPED` — Restore denied by the system or stopped manually.

c = Reason the restore was stopped:

- `1` — Invalid unit name. Only the CU can be restored.
- `2` — CU is not out of service (OOS).
- `3` — The mate CU must be ACTIVE or INIT.
- `4` — Diagnostic test failures for the CU.
- `5` — Expanded main memory (EMM) straps do not match on both CUs.
- `6` — The restore was terminated because of a system request (manual or automatic).

4. ACTION TO BE TAKEN

If *c* = `2`, remove the CU. If *b* = `ABORTED`, determine what is wrong with the system. Interpret the `REPT-CURSTRMV` output message if one occurred.

If *c* = `4`, fix the CU, or restore it unconditionally.

If *c* = `5`, fix the EMM straps.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

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6. REFERENCES

OMDB Key(s)
This message has an OMDB key of 424.

Input Message(s)
`RST:CU`

Output Message(s)
`REPT-CURSTRMV`

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ID . . . . . RST-DCI
GENERIC . . . . . UNIX RTR R21.3, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT,MAIPR

1. FORMAT

This message has six formats.

[1] `RST DCI` *a* `COMPLETED`

[2] `RST DCI` *a* `ABORTED` [*b*] [*c*]

[3] `RST DCI` *a* `STOPPED` *d*

[4] `RST DCI` *a* `TASK` *e* `MSG STARTED`

[5] `RST DCI` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RST DCI` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

These messages report the disposition of a request to restore a dual serial channel/computer interconnect (DCI) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Restore process error.
`X'2` — Driver error.
`[NULL]` — Restoration denied by driver or configuration control (CONFIG).

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c = Error code:

For restore process error (*b* = `X'1`), see output DCI Appendix F, `DCI-APPF`.
For driver error (*b* = `X'2`), see output DCI Appendix A, `DCI-APPA`.

d = Error code. See output DCI Appendix G, `DCI-APPG`.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Keys
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
`DCI-APPA`
`DCI-APPF`
`DCI-APPG`

Input Message(s)
`RST:DCI`

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ID . . . . . RST-DFC-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RST DFC` *a b* [*c*] [*d*]

2. REASON FOR OUTPUT

To report the status of a request to restore a disk file controller (DFC) to service.

If the restore process was invoked via the RST DFC poke on the data file system access (DFSA) display page during disk independent operation (DIOP) mode, a `REPT-DKDIP MESSAGE` message will precede the output message line.

3. VARIABLE FIELD DEFINITIONS

a = DFC Member number.

b = Status of request:

`ABORTED` — Restore aborted.
`COMPLETED` — Unit restored.
`ERROR` — Encountered an error, restore aborted.
`IN PROGRESS` — Unit is being initialized.
`NOT STARTED` — The restore not started.
`STARTED` — The restore was started by DKDIP.
`STOPPED` — Unit failed diagnosis.

If *b* = `ABORTED`, `ERROR`, `NOT STARTED`, or `STOPPED`
and if the command is started via the RST DFC poke on the DFSA display page, then

c = one of the following DKDIP error codes:

`f09` — Failed to get the UCB of the unit by name.
`f0b` — Unit is not out-of-service, restore stopped.
`f18` — Failed to open the device.
`f20` — See DKDRV error report on the ROP.
`f57` — Message to driver port failed.
`f60` — Message reception failure.
`f63` — Process timed out waiting for message.
`f67` — Failed to close special device file.

d = Error code. See System Error Codes Output Appendix, `SYSERR-APP`.

If *b* = ABORTED

c = Type of error:

1 — Diagnostic restore process error.
2 — Driver/Disk restore process error.
[NULL] — Bootstrap restore failure.

d = Error code:

Diagnostic restore process. See DFC Output Appendix G, DFC-APPG.
Driver/Disk restore process. See DFC Output Appendix A, DFC-APPA.

If *b* = STOPPED

c = Error code. See DFC Output Appendix H, DFC-APPH.

4. ACTION TO BE TAKEN

If the restore did not complete successfully, correct the source of trouble and attempt the restore again. If the error condition persists, contact the next level of technical assistance.

5. ALARMS

None.

6. REFERENCES

OMDB Key(s)
There are OMDB keys of 154, 308, and 601.

Output Appendix(es)
DFC-APPA
DFC-APPG
DFC-APPH
SYSERR-APP

Input Message(s)
RST:DFC

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ID . . . . . RST-DFC-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RST DFC` *a b* [*c*] [*d*]

2. REASON FOR OUTPUT

To report the status of a request to restore a disk file controller (DFC) to service.

If the restore process was invoked via the `RST DFC` poke on the DFC status page during disk independent operation (DIOP) mode, a `REPT-DKDIP,MESSAGE` message will precede the actual output message line.

3. VARIABLE FIELD DEFINITIONS

a = DFC member number.

b = Status of request.

`ABORTED` — Restore aborted.
`COMPLETED` — Unit restored.
`ERROR` — Encountered an error, restore aborted.
`IN PROGRESS` — Unit is being initialized.
`NOT STARTED` — The restore not started.
`STARTED` — The restore was started by `DKDIP`.
`STOPPED` — Unit failed diagnosis.

If *b* = `ABORTED`, `ERROR`, `NOT STARTED`, or `STOPPED`, and if the command is started via the `RST DFC` poke on the DFC status page.

c = One of the following `DKDIP` error codes.

`f09` — failed to get the UCB of the unit by name
`f18` — unit is not out-of-service (OOS)
`f1e` — failed to open the device
`f20` — see DKDRV error report on the ROP
`f57` — message to driver port failed
`f60` — message reception failure
`f63` — process timed out waiting for message
`f67` — failed to close special device file
`ffe` — aborted due to phase 1

d = Error code. See the System Error Codes Output Appendix, `SYSERR`.

If *b* = ABORTED

c = Type of error.

1 — Diagnostic restore process error.
2 — DFC driver restore process error.
[NULL] — Bootstrap restore failure.

d = Error code.

For a diagnostic restore process error (*c* = 1). See DFC Output Appendix G, DFC-APPG.
For a DFC driver error (*c* = 2). See DFC Output Appendix A, DFC-APPA.

If *b* = STOPPED

c = Error code. See DFC Output Appendix H, DFC-APPH.

4. ACTION TO BE TAKEN

If the restore did not complete successfully, correct the source of trouble and attempt the restore again. If the error condition persists, contact the next level of technical assistance.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Key(s)
This message has OMDB keys of 308 and 601.

Output Appendix(es)
DFC-APPA
DFC-APPG
DFC-APPH
SYSERR

Input Message(s)
RST:DFC

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RST-DUI
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT,MAIPR

1. FORMAT

This message has six formats.

[1] `RST DUI` *a* `COMPLETED`

[2] `RST DUI` *a* `ABORTED` [*b*] [*c*]

[3] `RST DUI` *a* `STOPPED` *d*

[4] `RST DUI` *a* `TASK` *e* `MSG STARTED`

[5] `RST DUI` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RST DUI` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

These messages report the disposition of a request to restore a direct user interface (DUI) subdevice to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Restore process error.
`X'2` — Driver error.
`[NULL]` — Restoration denied by driver or configuration control (CONFIG).

SEE PROPRIETARY NOTICE ON COVER PAGE

c = Error code:

For restore process error (*b* = `X'1`), see output IOP Appendix H, `IOP-APPH`.
For driver error (*b* = `X'2`), see output IOP Appendix G, `IOP-APPG`.

d = Error code. See output IOP Appendix I, `IOP-APPI`.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was aborted or stopped, clear the source of trouble and attempt the restoration again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Key(s)
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
`IOP-APPG`
`IOP-APPH`
`IOP-APPI`

Input Message(s)
`RST:DUI`

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RST-DUIC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT,MAIPR

1. FORMAT

This message has six formats.

[1] `RST DUIC` *a* `COMPLETED`

[2] `RST DUIC` *a* `ABORTED` [*b*] [*c*]

[3] `RST DUIC` *a* `STOPPED` *d*

[4] `RST DUIC` *a* `TASK` *e* `MSG STARTED`

[5] `RST DUIC` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RST DUIC` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

These messages report the disposition of a request to restore a direct user interface controller (DUIC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Restore process error.
`X'2` — Driver error.
`[NULL]` — Restoration denied by driver or configuration control (CONFIG).

SEE PROPRIETARY NOTICE ON COVER PAGE

c = Error code:

For restore process error (*b* = X'1), see output IOP Appendix H, IOP-APPH.
For driver error (*b* = X'2), see output IOP Appendix G, IOP-APPH.

d = Error code. See output IOP Appendix I, IOP-APPH.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was aborted or stopped, clear the source of trouble and attempt the restoration again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Key(s)
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
IOP-APPG
IOP-APPH
IOP-APPI

Input Message(s)
RST:DUIC

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RST-HSD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT,MAIPR

1. FORMAT

This message has six formats.

[1] `RST HSD` *a* `COMPLETED`

[2] `RST HSD` *a* `ABORTED` [*b*] [*c*]

[3] `RST HSD` *a* `STOPPED` *d*

[4] `RST HSD` *a* `TASK` *e* `MSG STARTED`

[5] `RST HSD` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RST HSD` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

These messages report the disposition of a request to restore a high speed synchronous data link (HSD) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Restore process error.
`X'2` — Driver error.
`[NULL]` — Restoration denied by driver or configuration control (CONFIG).

c = Error code:

For restore process error (*b* = `X'1`), see output IOP Appendix H, `IOP-APPH`.
For driver error (*b* = `X'2`), see output IOP Appendix G, `IOP-APPG`.

d = Error code. See output IOP Appendix I, `IOP-APPI`.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Key(s)
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
`IOP-APPG`
`IOP-APPH`
`IOP-APPI`

Input Message(s)
`RST:HSD`

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ID . . . . . RST-HSDC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT,MAIPR

1. FORMAT

This message has six formats.

[1] `RST HSDC` *a* `COMPLETED`

[2] `RST HSDC` *a* `ABORTED` [*b*] [*c*]

[3] `RST HSDC` *a* `STOPPED` *d*

[4] `RST HSDC` *a* `TASK` *e* `MSG STARTED`

[5] `RST HSDC` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RST HSDC` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

These messages report the disposition of a request to restore a high speed synchronous data link controller (HSDC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Restore process error.
`X'2` — Driver error.
`[NULL]` — Restoration denied by driver or configuration control (CONFIG).

SEE PROPRIETARY NOTICE ON COVER PAGE

c = Error code:

For restore process error (*b* = `X'1`), see output IOP Appendix H, `IOP-APPH`.
For driver error (*b* = `X'2`), see output IOP Appendix G, `IOP-APPG`.

d = Error code. See output IOP Appendix I, `IOP-APPI`.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Key(s)
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
`IOP-APPG`
`IOP-APPH`
`IOP-APPI`

Input Message(s)
`RST:HSDC`

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RST-IOP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT,MAIPR

1. FORMAT

This message has six formats.

[1] `RST IOP` *a* `COMPLETED`

[2] `RST IOP` *a* `ABORTED` [*b*] [*c*]

[3] `RST IOP` *a* `STOPPED` *d*

[4] `RST IOP` *a* `TASK` *e* `MSG STARTED`

[5] `RST IOP` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RST IOP` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

These messages report the disposition of a request to restore an input/output processor (IOP) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Restore process error.
`X'2` — Driver error.
`[NULL]` — Restoration denied by driver or configuration control (CONFIG).

SEE PROPRIETARY NOTICE ON COVER PAGE

c = Error code:

For restore process error (*b* = `X'1`), see output IOP Appendix H, `IOP-APPH`.
For driver error (*b* = `X'2`), see output IOP Appendix G, `IOP-APPG`.

d = Error code. See output IOP Appendix I, `IOP-APPI`.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Key(s)
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
`IOP-APPG`
`IOP-APPH`
`IOP-APPI`

Input Message(s)
`RST:IOP`

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RST-MHD-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

RST MHD *a b* [*c*] [*d*]
e

2. REASON FOR OUTPUT

To report the disposition of a request to restore a moving head disk (MHD) to service, whether bootstrap or manual. The MHD was initially in the out-of-service state.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Disposition of the request:

- ABORTED — Restore aborted or was terminated.
- COMPLETED — Unit restored to service.
- IN PROGRESS — MHD *a* is being initialized. If MHD *a* has an active mate, data will be copied from the active mate to MHD *a*.
- STOPPED — Unit failed diagnosis.

If *b* = ABORTED,

c = Type of error:

- 1 — Restore process error.
- 2 — Driver error.
- [NULL] — Bootstrap restore failure.

d = Error code:

Restore process. See output DFC Appendix G, DFC-APPG.
Driver and output DFC Appendix A, DFC-APPA.

If *b* = STOPPED,

c = Error code. See output DFC Appendix H, DFC-APPH.

If *b* = IN PROGRESS,

e = No message or one of the following status messages:

APPLICATION DID NOT RESPOND
Application did not request to abort the restore. The disk to disk copy is being started.

MHD *f* SINGLE BLOCK READ RETRY {WORKED|FAILED}

SEE PROPRIETARY NOTICE ON COVER PAGE

`START DISK BLOCK =` *g* `{END|FAILING} DISK BLOCK =` *h*

f = Member number.

g = First relative physical disk block number of a range that could not be read.

h = Last relative physical disk block number.

When read with a range of blocks, the read failed. When read with single blocks, the reads were successful.

`MHD` *f* `{READ | WRITE} FAILED`
`PARTITION =` *i* `OFFSET =` *j* `DISK BLOCK =` *k*

f = Member number.

i = Partition number for the failed I/O.

j = Start block number within the partition of the failure.

k = Relative physical disk block for the failed I/O. The read or write job specified by the data could not be successfully performed.

```
**************
* WARNING *
**************
```

`MHD` *f* `{PRIMARY | BACKUP} BBOOT PARTITION INVALID`

f = Member number.

The indicated `BBOOT` partition (`PRIMARY` or `BACKUP`) on the specified disk was found to be marked invalid. The data in that partition is questionable and cannot be guaranteed to boot. However, the data is still being copied to the destination disk and the indicated `BBOOT` partition on the destination disk will also be marked invalid.

NOTE: Relative physical block number is a physical block number of the disk which may have been adjusted by disk defect management for SMD disk drive. In order to use it in the defect table, this number may need to be readjusted.

4. ACTION TO BE TAKEN

If restore is stopped, correct the source of trouble and attempt to restore again.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Key(s)
This message has OMDB keys of 308 and 601.

Output Appendix(es)
DFC-APPA
DFC-APPG
DFC-APPH

Input Message(s)
RST:DFC
RST:MHD
RST:SBUS

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ID . . . . . RST-MHD-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R2.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RST MHD` *a b* [*c*] [*d*]
e

2. REASON FOR OUTPUT

To report the disposition of a request to restore a moving head disk (MHD) to service, whether bootstrap or manual. The MHD was initially in the out-of-service (OOS) state.

If the restore process was invoked via the `RST MHD` poke on the DFC status page during disk independent operation (DIOP) mode, a `REPT DKDIP MESSAGE` message will precede the actual output message line.

3. VARIABLE FIELD DEFINITIONS

a = MHD member number.

b = Disposition of the request.

- `ABORTED` — Restore aborted or was terminated.
- `COMPLETED` — Unit restored to service.
- `ERROR` — Encountered an error, restore aborted.
- `IN PROGRESS` — `MHD` *a* is being initialized. If `MHD` *a* has an active mate, data is being copied from the active mate to `MHD` *a*.
- `NOT STARTED` — The restore not started.
- `STARTED` — The restore was started by `DKDIP`.
- `STOPPED` — Unit failed diagnosis.

If *b* = `ABORTED`, `ERROR`, `NOT STARTED`, or `STOPPED`, and if the command is started via the `RST MHD` poke on the DFC status page.

c = One of the following `DKDIP` error codes.

- `f09` — failed to get the UCB of the unit by name
- `f0c` — ugucbm() failed
- `f0f` — DIOP restore not allowed — mate MHD is active
- `f12` — DIOP restore not allowed — MHD is marked essential
- `f18` — unit is not OOS
- `f1e` — failed to open the device
- `f20` — see DKDRV error report on the ROP
- `f57` — message to driver port failed
- `f60` — message reception failure
- `f63` — process timed out waiting for message
- `f67` — failed to close special device file
- `ffe` — aborted due to phase 1

SEE PROPRIETARY NOTICE ON COVER PAGE

d = Error code. See the System Error Codes Output Appendix, SYSERR.

If *b* = ABORTED

c = Type of error.

1 — Diagnostic restore process error.
2 — DFC driver restore process error.
[NULL] — Bootstrap restore failure.

d = Error code.

For a diagnostic restore process error (*c* = 1). See DFC Output Appendix G, DFC-APPG.
For a DFC driver error (*c* = 2). See DFC Output Appendix A, DFC-APPA.

If *b* = STOPPED

c = Error code. See DFC Output Appendix H, DFC-APPH.

If *b* = IN PROGRESS

e = No message or one of the following status messages.

APPLICATION DID NOT RESPOND
Application did not request to abort the restore. The disk to disk copy is being started.

MHD *f* SINGLE BLOCK READ RETRY {WORKED|FAILED}
START DISK BLOCK = *g* {END|FAILING} DISK BLOCK = *h*

f = Member number.

g = First relative physical disk block number of a range that could not be read.

h = Last relative physical disk block number.

When read with a range of blocks, the read failed. When read with single blocks, the reads were successful.

MHD *f* {READ | WRITE} FAILED
PARTITION = *i* OFFSET = *j* DISK BLOCK = *k*

f = Member number.

i = Partition number for the failed I/O.

j = Start block number within the partition of the failure.

k = Relative physical disk block for the failed I/O. The read or write job specified by the data could not be successfully performed.

SEE PROPRIETARY NOTICE ON COVER PAGE

```
***************
*   WARNING   *
***************
```

```
MHD f{PRIMARY | BACKUP} BBOOT PARTITION INVALID
```

f = Member number.

The indicated BBOOT partition (PRIMARY or BACKUP) on the specified disk was found to be marked invalid. The data in that partition is questionable and cannot be guaranteed to boot. However, the data is still being copied to the destination disk and the indicated BBOOT partition on the destination disk will also be marked invalid.

NOTE: Relative physical block number is a physical block number of the disk which may have been adjusted by disk defect management for SMD disk drive. In order to use it in the defect table, this number may need to be readjusted.

4. ACTION TO BE TAKEN

If restore is stopped, correct the source of trouble and attempt to restore again.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Key(s)
This message has OMDB keys of 308 and 601.

Output Appendix(es)
DFC-APPA
DFC-APPG
DFC-APPH
SYSERR

Input Message(s)
RST:DFC
RST:MHD
RST:SBUS

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ID . . . . . RST-MT-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RST MT` *a* `COMPLETED`

[2] `RST MT` *a* `ABORTED` [*b*] [*c*]

[3] `RST MT` *a* `STOPPED` *d*

[4] `RST MT` *a* `TASK` *e* `MSG STARTED`

[5] `RST MT` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RST MT` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to restore a magnetic tape (MT) unit to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Restore process error.
`X'2` — Driver error.
`[NULL]` — Restoration denied by driver or configuration control (CONFIG).

SEE PROPRIETARY NOTICE ON COVER PAGE

c = Error code:

For restore process error (*b* = `X'1`), see output IOP Appendix H, `IOP-APPH`.
For driver error (*b* = `X'2`), see output IOP Appendix G, `IOP-APPG`.

d = Error code. See output IOP Appendix I, `IOP-APPI`.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Key(s)
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
`IOP-APPG`
`IOP-APPH`
`IOP-APPI`

Input Message(s)
`RST:MT`

SEE PROPRIETARY NOTICE ON COVER PAGE

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ID . . . . . RST-MT-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

`RST MT` *a b* [*c*] [*d*]

2. REASON FOR OUTPUT

To report the status of a request to restore a magnetic tape (MT) device to service.

If the restore process was invoked via the `RST MT` poke on the disk file controller (DFC) status page during disk independent operation (DIOP) mode, a `REPT DKDIP MESSAGE` message will precede the actual output message line.

3. VARIABLE FIELD DEFINITIONS

a = MT member number.

b = Status of request.

`ABORTED` — Restore aborted.
`COMPLETED` — Unit restored.
`ERROR` — Encountered an error, restore aborted.
`IN PROGRESS` — Unit is being initialized.
`NOT STARTED` — The restore not started.
`STARTED` — The restore was started by DKDIP.
`STOPPED` — Unit failed diagnosis.

If *b* = `ABORTED`, `ERROR`, `NOT STARTED`, or `STOPPED`, and if the command is started via the `RST MT` poke on the DFC status page.

c = One of the following DKDIP error codes.

`f09` — Failed to get the UCB of the unit by name.
`f15` — MT restore not allowed: controller is not a DFC.
`f18` — Unit is not out-of-service (OOS).
`f1e` — Failed to open the device.
`f20` — See DKDRV error report on the ROP.
`f57` — Message to driver port failed.
`f60` — Message reception failure.
`f63` — Process timed out waiting for message.
`f67` — Failed to close special device file.
`ffe` — Aborted due to phase 1.

d = Error code. See the System Error Codes Output Appendix, `SYSERR`.

SEE PROPRIETARY NOTICE ON COVER PAGE

If *b* = ABORTED

c = Type of error.

1 — Diagnostic restore process error.
2 — DFC or IOP driver error.
[NULL] — Restoration denied by driver or configuration (CONFIG) control.

d = Error code.

If the MT is controlled by an IOP:
For a diagnostic restore process error (*c* = 1). See IOP Output Appendix H, IOP-APPH.
For a IOP driver error (*c* = 2). See IOP Output Appendix G, IOP-APPG.

If the MT is controlled by a DFC:
For a diagnostic restore process error (*c* = 1). See DFC Output Appendix G, DFC-APPG.
For a DFC driver error (*c* = 2). See DFC Output Appendix A, DFC-APPA.

If *b* = STOPPED

c = Error code.

If the MT is controlled by an IOP, see IOP Output Appendix I, IOP-APPI.
If the MT is controlled by a DFC, see DFC Output Appendix H, DFC-APPH.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The pudrv-subsystem-generated messages have no alarm; the automatically-generated report is for information only.

The cft-subsystem-generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag-subsystem-generated messages have automatically generated alarms; action may or may not be required.

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6. REFERENCES

OMDB Key(s)

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)

```
DFC-APPA
DFC-APPG
DFC-APPH
IOP-APPG
IOP-APPH
IOP-APPI
SYSERR
```

Input Message(s)

```
RST:MT
```

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ID . . . . . RST-MTC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RST MTC` *a* `COMPLETED`

[2] `RST MTC` *a* `ABORTED` [*b*] [*c*]

[3] `RST MTC` *a* `STOPPED` *d*

[4] `RST MTC` *a* `TASK` *e* `MSG STARTED`

[5] `RST MTC` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RST MTC` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to restore a magnetic tape controller (MTC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Restore process error.
`X'2` — Driver error.
`[NULL]` — Restoration denied by driver or configuration control (CONFIG).

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c = Error code:

For restore process error (*b* = `X'1`), see output IOP Appendix H, `IOP-APPH`.
For driver error (*b* = `X'2`), see output IOP Appendix G, `IOP-APPG`.

d = Error code. See output IOP Appendix I, `IOP-APPI`.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Key(s)
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
`IOP-APPG`
`IOP-APPH`
`IOP-APPI`

Input Message(s)
`RST:MTC`

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ID . . . . . RST-MTTY
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RST MTTY` *a* `COMPLETED`

[2] `RST MTTY` *a* `ABORTED` [*b*] [*c*]

[3] `RST MTTY` *a* `STOPPED` *d*

[4] `RST MTTY` *a* `TASK` *e* `MSG STARTED`

[5] `RST MTTY` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RST MTTY` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to restore a maintenance teletypewriter (MTTY) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Restore process error.
`X'2` — Driver error.
`[NULL]` — Restoration denied by driver or configuration control (CONFIG).

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c = Error code:

For restore process error (*b* = `X'1`), see output IOP Appendix H, `IOP-APPH`.
For driver error (*b* = `X'2`), see output IOP Appendix G, `IOP-APPG`.

d = Error code. See output IOP Appendix I, `IOP-APPI`.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Key(s)
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
`IOP-APPG`
`IOP-APPH`
`IOP-APPI`

Input Message(s)
`RST:MTTY`

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ID . . . . . RST-MTTYC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RST MTTYC` *a* `COMPLETED`

[2] `RST MTTYC` *a* `ABORTED` [*b*] [*c*]

[3] `RST MTTYC` *a* `STOPPED` *d*

[4] `RST MTTYC` *a* `TASK` *e* `MSG STARTED`

[5] `RST MTTYC` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RST MTTYC` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to restore a maintenance teletypewriter controller (MTTYC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Restore process error.
`X'2` — Driver error.
`[NULL]` — Restoration denied by driver or configuration control (CONFIG).

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c = Error code:

For restore process error (*b* = `X'1`), see output IOP Appendix H, `IOP-APPH`.
For driver error (*b* = `X'2`), see output IOP Appendix G, `IOP-APPG`.

d = Error code. See output IOP Appendix I, `IOP-APPI`.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Key(s)
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
`IOP-APPG`
`IOP-APPH`
`IOP-APPI`

Input Message(s)
`RST:MTTYC`

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ID . . . . . RST-ROP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RST ROP` *a* `COMPLETED`

[2] `RST ROP` *a* `ABORTED` [*b*] [*c*]

[3] `RST ROP` *a* `STOPPED` *d*

[4] `RST ROP` *a* `TASK` *e* `MSG STARTED`

[5] `RST ROP` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RST ROP` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to restore a receive only printer (ROP) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Restore process error.
`X'2` — Driver error.
`[NULL]` — Restoration denied by driver or configuration control (CONFIG).

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c = Error code:

For restore process error (*b* = `X'1`), see output IOP Appendix H, `IOP-APPH`.
For driver error (*b* = `X'2`), see output IOP Appendix G, `IOP-APPG`.

d = Error code. See output IOP Appendix I, `IOP-APPI`.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Key(s)
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
`IOP-APPG`
`IOP-APPH`
`IOP-APPI`

Input Message(s)
`RST:ROP`

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ID . . . . . RST-SBUS-A
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RST SBUS` *a b* [*c*] [*d*]

2. REASON FOR OUTPUT

To report the status of a request to restore a small computer system interface (SCSI) bus (SBUS) to service.

If the restore process was invoked via the `RST SBUS` poke on the data file system access (DFSA) display page during disk independent operation (DIOP) mode, a `REPT DKDIP MESSAGE` message will precede the output message line.

3. VARIABLE FIELD DEFINITIONS

a = SBUS member number.

b = Status of request:

`ABORTED` — Restore aborted.
`COMPLETED` — Unit restored.
`ERROR` — Encountered an error, restore aborted.
`IN PROGRESS` — Unit is being initialized.
`NOT STARTED` — The restore is not started.
`STARTED` — The restore was started by DKDIP.
`STOPPED` — Restore stopped.

If *b* = `ABORTED`, `ERROR`, `NOT STARTED`, or `STOPPED`,
and if the command was started via the `RST SBUS` poke on the DFSA display page, then

c = one of the following DKDIP error codes:

`f09` — failed to get the UCB of the unit by name
`f0b` — unit is not out of service, restore stopped
`f18` — failed to open the device
`f20` — see DKDRV error report on the ROP
`f57` — message to driver port failed
`f60` — message reception failure
`f63` — process timed out waiting for message
`f67` — failed to close special device file

d = See the System Error Codes Appendix, `SYSERR`.

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If *b* = ABORTED

c = Type of error:

1 — Diagnostic restore process error.
2 — Driver/Disk restore process error.
[NULL] — Bootstrap restore failure.

d = Error code:

Diagnostic restore process. See output DFC Appendix G, DFC-APPG.
Driver/Disk restore process. See output DFC Appendix A, DFC-APPA.

If *b* = STOPPED

c = Error code. See output DFC Appendix H, DFC-APPH.

4. ACTION TO BE TAKEN

If the restore did not complete successfully, correct the source of trouble and attempt the restore again. If the error condition persists, contact the next level of technical assistance.

5. ALARMS

The alarm may be a manually-requested report.

There is a manual alarm for OMDB key 154.

The alarm may have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

There is a major alarm for OMDB key 601.

6. REFERENCES

OMDB Key(s)
There are OMDB keys of 154, 308, and 601.

Output Appendix(es)
DFC-APPA
DFC-APPG
DFC-APPH
SYSERR

Input Message(s)
RST:SBUS

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ID . . . . . RST-SBUS-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`RST SBUS` *a b* [*c*] [*d*]

2. REASON FOR OUTPUT

To report the status of a request to restore a small computer system interface (SCSI) bus (SBUS) to service.

If the restore process was invoked via the `RST SBUS` poke on the DFC status page during disk independent operation (DIOP) mode, a `REPT-DKDIP,MESSAGE` message will precede the actual output message line.

3. VARIABLE FIELD DEFINITIONS

a = SBUS member number.

b = Status of request.

`ABORTED` — Restore aborted.
`COMPLETED` — Unit restored.
`ERROR` — Encountered an error, restore aborted.
`IN PROGRESS` — Unit is being initialized.
`NOT STARTED` — The restore is not started.
`STARTED` — The restore was started by DKDIP.
`STOPPED` — Restore stopped.

If *b* = `ABORTED`, `ERROR`, `NOT STARTED`, or `STOPPED`, and if the command was started via the `RST SBUS` poke on the DFC status page.

c = One of the following DKDIP error codes.

`f09` — failed to get the UCB of the unit by name
`f18` — unit is not out-of-service (OOS)
`f1e` — failed to open the device
`f20` — see DKDRV error report on the ROP
`f57` — message to driver port failed
`f60` — message reception failure
`f63` — process timed out waiting for message
`f67` — failed to close special device file
`ffe` — aborted due to phase 1

d = Error code. See the System Error Codes Appendix, `SYSERR`.

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If *b* = ABORTED

c = Type of error.

1 — Diagnostic restore process error.
2 — DFC driver restore process error.
[NULL] — Bootstrap restore failure.

d = Error code.

For a diagnostic restore process error (*c* = 1). See DFC Output Appendix G, DFC-APPG.
For a DFC driver error (*c* = 2). See DFC Output Appendix A, DFC-APPA.

If *b* = STOPPED

c = Error code. See DFC Output Appendix H, DFC-APPH.

4. ACTION TO BE TAKEN

If the restore did not complete successfully, correct the source of trouble and attempt the restore again. If the error condition persists, contact the next level of technical assistance.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Key(s)
This message has OMDB keys of 308 and 601.

Output Appendix(es)
DFC-APPA
DFC-APPG
DFC-APPH
SYSERR

Input Message(s)
RST:SBUS

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RST-SCC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RST SCC` *a* `COMPLETED`

[2] `RST SCC` *a* `ABORTED` [*b*] [*c*]

[3] `RST SCC` *a* `STOPPED` *d*

[4] `RST SCC` *a* `TASK` *e* `MSG STARTED`

[5] `RST SCC` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RST SCC` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to restore a Switching Control Center (SCC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Restore process error.
`X'2` — Driver error.
`[NULL]` — Restoration denied by driver or configuration control (CONFIG).

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c = Error code:

For restore process error (*b* = `X'1`), see output IOP Appendix H, `IOP-APPH`.
For driver error (*b* = `X'2`), see output IOP Appendix G, `IOP-APPG`.

d = Error code. See output IOP Appendix I, `IOP-APPI`.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Key(s)
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
`IOP-APPG`
`IOP-APPH`
`IOP-APPI`

Input Message(s)
`RST:SCC`

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ID . . . . . RST-SCSDC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RST SCSDC` *a* `COMPLETED`

[2] `RST SCSDC` *a* `ABORTED` [*b*] [*c*]

[3] `RST SCSDC` *a* `STOPPED` *d*

[4] `RST SCSDC` *a* `TASK` *e* `MSG STARTED`

[5] `RST SCSDC` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RST SCSDC` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to restore a scanner and signal distributor controller (SCSDC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Restore process error.
`X'2` — Driver error.
`[NULL]` — Restoration denied by driver or configuration control (CONFIG).

SEE PROPRIETARY NOTICE ON COVER PAGE

c = Error code:

For restore process error (*b* = `X'1`), see output IOP Appendix H, `IOP-APPH`.
For driver error (*b* = `X'2`), see output IOP Appendix G, `IOP-APPG`.

d = Error code. See output IOP Appendix I, `IOP-APPI`.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Key(s)
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
`IOP-APPG`
`IOP-APPH`
`IOP-APPI`

Input Message(s)
`RST:SCSDC`

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ID . . . . . RST-SDL
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RST SDL` *a* `COMPLETED`

[2] `RST SDL` *a* `ABORTED` [*b*] [*c*]

[3] `RST SDL` *a* `STOPPED` *d*

[4] `RST SDL` *a* `TASK` *e* `MSG STARTED`

[5] `RST SDL` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RST SDL` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to restore a synchronous data link (SDL) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Restore process error.
`X'2` — Driver error.
`[NULL]` — Restoration denied by driver or configuration control (CONFIG).

SEE PROPRIETARY NOTICE ON COVER PAGE

c = Error code:

For restore process error (*b* = X'1), see output IOP Appendix H, IOP-APPH.
For driver error (*b* = X'2), see output IOP Appendix G, IOP-APPG.

d = Error code. See output IOP Appendix I, IOP-APPI.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Key(s)
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
IOP-APPG
IOP-APPH
IOP-APPI

Input Message(s)
RST:SDL

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RST-SDLC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RST SDLC` *a* `COMPLETED`

[2] `RST SDLC` *a* `ABORTED` [*b*] [*c*]

[3] `RST SDLC` *a* `STOPPED` *d*

[4] `RST SDLC` *a* `TASK` *e* `MSG STARTED`

[5] `RST SDLC` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RST SDLC` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to restore a synchronous data link controller (SDLC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Restore process error.
`X'2` — Driver error.
`[NULL]` — Restoration denied by driver or configuration control (CONFIG).

SEE PROPRIETARY NOTICE ON COVER PAGE

c = Error code:

For restore process error (*b* = `X'1`), see output IOP Appendix H, `IOP-APPH`.
For driver error (*b* = `X'2`), see output IOP Appendix G, `IOP-APPG`.

d = Error code. See output IOP Appendix I, `IOP-APPI`.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Key(s)
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
`IOP-APPG`
`IOP-APPH`
`IOP-APPI`

Input Message(s)
`RST:SDLC`

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RST-TTY
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RST TTY` *a* `COMPLETED`

[2] `RST TTY` *a* `ABORTED` [*b*] [*c*]

[3] `RST TTY` *a* `STOPPED` *d*

[4] `RST TTY` *a* `TASK` *e* `MSG STARTED`

[5] `RST TTY` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RST TTY` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to restore a teletypewriter (TTY) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Restore process error.
`X'2` — Driver error.
`[NULL]` — Restoration denied by driver or configuration control (CONFIG).

SEE PROPRIETARY NOTICE ON COVER PAGE

c = Error code:

For restore process error (*b* = X'1), see output IOP Appendix H, IOP-APPH.
For driver error (*b* = X'2), see output IOP Appendix G, IOP-APPG.

d = Error code. See output IOP Appendix I, IOP-APPI.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Key(s)
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
IOP-APPG
IOP-APPH
IOP-APPI

Input Message(s)
RST:TTY

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . RST-TTYC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT, MAIPR

1. FORMAT

This message has six formats.

[1] `RST TTYC` *a* `COMPLETED`

[2] `RST TTYC` *a* `ABORTED` [*b*] [*c*]

[3] `RST TTYC` *a* `STOPPED` *d*

[4] `RST TTYC` *a* `TASK` *e* `MSG STARTED`

[5] `RST TTYC` *a* `STOPPED MESSAGE IN PROGRESS`

[6] `RST TTYC` *a* `STOPPED MESSAGE COMPLETE`

2. REASON FOR OUTPUT

To report the disposition of a request to restore a teletypewriter controller (TTYC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error:

`X'1` — Restore process error.
`X'2` — Driver error.
`[NULL]` — Restoration denied by driver or configuration control (CONFIG).

SEE PROPRIETARY NOTICE ON COVER PAGE

c = Error code:

For restore process error (*b* = X'1), see output IOP Appendix H, IOP-APPH.
For driver error (*b* = X'2), see output IOP Appendix G, IOP-APPG.

d = Error code. See output IOP Appendix I, IOP-APPI.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The pudrv subsystem generated messages have no alarm; the automatically-generated report is for information only.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report that is for information only.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

6. REFERENCES

OMDB Key(s)
When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.
When the message is generated by the cft subsystem, the OMDB key is 308.
When the message is generated by the diag subsystem, the OMDB key is 96.

Output Appendix(es)
IOP-APPG
IOP-APPH
IOP-APPI

Input Message(s)
RST:TTYC

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . SET-CLK
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `SET CLK COMPLETED`
a b

[2] `SET CLK STOPPED`
c

[3] `SET CLK COMPLETED`
a b
`WARNING - ONLY THE AM CLOCK HAS BEEN UPDATED`
`IT MAY AUTOMATICALLY BE RESET LATER TO AGREE`
`WITH THE SYSTEM TIME`

2. REASON FOR OUTPUT

To report the result of executing a `SET:CLK` input message to set the date and time.

3. VARIABLE FIELD DEFINITIONS

a = Date.

b = Time.

c = Text explaining why the command was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates successful execution. Take no action.

If Format 2 is printed, correct any command line errors and reissue the command. If the error message is not self-explanatory, seek technical assistance.

Format 3 should be printed only when the `SET:CLK` input message is executed on a machine running in MIN-CONFIG mode. Although Format 1 is normally printed to indicate successful execution of the input command, Format 3 may be printed under certain conditions. If the machine is running in application mode, seek technical assistance. Otherwise, the `SET:CLK` input message may need to be re-executed after the machine is rebooted in application mode.

5. ALARMS

None. This alarm is a manually-requested report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys
Formats 1 and 3 have an OMDB key of 287.
Format 2 has an OMDB key of 283.

Input Messages
`SET:CLK`
`OP:CLK`

Output Message
`OP-CLK`

ID . . . . . SET-IODRV
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `SET IODRV {COMPLETED|ABORTED}`

[2]
```
SET IODRV NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS
```

2. REASON FOR OUTPUT

To report the result of executing a `SET:IODRV` input message.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

If the message reads `ABORTED`, the message could not be processed due to a conflict with the system status. The message will not be successfully processed until the system status changes. Check system status to determine why message aborted.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Format 1 has an OMDB key of 159.

Input Message
`SET:IODRV`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . START-OF
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has one format.

```
START OF CU-a RECOVERY
```

2. REASON FOR OUTPUT

To indicate that a stimulus occurred that resulted in the start of a CU recovery action.

3. VARIABLE FIELD DEFINITIONS

a = Member number (0-1).

4. ACTION TO BE TAKEN

Monitor the progress of the software recovery. Initiate the appropriate manual actions if the recovery does not proceed as expected.

5. ALARMS

Critical.

6. REFERENCES

Output Message
RCVRY-ALARM
CU-RECOVERY

Other Manual(s)
235-105-250 System Recovery

ID . . . . . STOP-AUD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `STOP AUD COMPLETED`

[2]
```
STOP AUD NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS - NOT RUNNING
```

[3]
```
STOP AUD NOT STARTED
CANNOT STOP NON-SEGMENTED AUDIT
```

2. REASON FOR OUTPUT

To report the termination status of the `STOP:AUD` input message.

3. VARIABLE FIELD DEFINITIONS

None.

NOTE: See the *System Maintenance Manual*, Appendixes A and B for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

Format 1 indicates successful execution. No action is necessary.

Format 2 indicates that no audits were running at the time the command was entered. The `OP:AUD` input message can be used to determine the current system status.

If Format 3 is printed, the audit cannot be stopped.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 2 has an OMDB key of 595.
Format 3 has an OMDB key of 591.

Input Messages
`OP:AUD`
`STOP:AUD`

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message
OP-AUD

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ID . . . . . STOP-BKDISK-A
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3 and R21.11
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
STOP BKDISK NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS  a
```

2. REASON FOR OUTPUT

To report the termination status of the STOP:BKDISK input message.

3. VARIABLE FIELD DEFINITIONS

a = A fatal error was encountered because the system was unable to initiate the stop program.

4. ACTION TO BE TAKEN

Try to initiate the message again. If the process still fails, seek technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

Input Messages
COPY:BKDISK
STOP:BKDISK

Output Message
COPY-BKDISK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . STOP-BKDISK-B
GENERIC . . . . . UNIX RTR R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
STOP BKDISK {ABORTED |IN PROGRESS |COMPLETED }
[COPY BKDISK NOT RUNNING |
CANNOT SEND SIGNAL TO COPY BKDISK |
COPY BKDISK FAILED TO TERMINATE]
```

2. REASON FOR OUTPUT

To report the progress of the `STOP BKDISK` input message, or to indicate a problem.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

If the message indicates `COPY BKDISK` is not running, no action is needed. If the message indicates `COPY BKDISK` cannot be signaled, seek technical assistance. If the message indicates `COPY BKDISK` failed to terminate, initiate the `STOP:BKDISK` input command again. If the process still fails, seek technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
These messages have an OMDB key of 764.

Input Messages
`COPY:BKDISK`
`STOP:BKDISK`

Output Message
`COPY-BKDISK`

ID . . . . . STOP-DCI
GENERIC . . . . . UNIX RTR R21.3, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `STOP DCI COMPLETED`

[2] `STOP DCI NOT STARTED`

[3] `STOP DCI ABORTED`

2. REASON FOR OUTPUT

The first format is to report the termination of the dual serial channel interface (DCI) process in response to a `STOP:DCI` input message.

The second format is in response to a `STOP:DCI` input message when the dual serial channel interface (DCI) process was not running.

The third format is in response to a `STOP:DCI` input message when the dual serial channel interface (DCI) process could not be terminated.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message
`STOP:DCI`

ID . . . . . STOP-DMQ
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
STOP DMQ COMPLETED
```

2. REASON FOR OUTPUT

To report that a diagnostic request awaiting execution was removed from the maintenance input request administrator (MIRA) request queue in response to either an automatic stop request or `STOP:DMQ` input message.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message
`STOP:DMQ`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . STOP-EXC,ANY
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`STOP EXC ANY {COMPLETED|STOPPED}`
[*a*]

2. REASON FOR OUTPUT

To report the result of executing a `STOP:EXC;ANY` or `STP:EXC;ANY` input command to stop a process.

3. VARIABLE FIELD DEFINITIONS

a = Type of error that may have occurred.

4. ACTION TO BE TAKEN

Seek technical assistance if any error message is printed.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Keys
This message has OMDB keys of 282 and 284.

Input Messages
`OP:ST;PROC`
`STOP:E;ANY`
`STOP:E;USER`

Output Message
`OP-ST,PROC`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . STOP-EXC,USER
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `STOP EXC USER COMPLETED`

[2] `STOP EXC USER STOPPED`
a

2. REASON FOR OUTPUT

To report the result of executing a `STOP:EXC;USER` or `STP:EXC;USER` input command to stop a user process.

NOTE: If the `STOP:EXC;USER;PID` *a* or `STP:EXC;USER;PID` *a* input command is used to kill a supervisor process, a `COMPLETED` message will be printed, but the process has not really been killed.

3. VARIABLE FIELD DEFINITIONS

a = Description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success. No action is necessary.

Format 2 indicates the command has failed. The explanatory text will indicate the error encountered. Refer to the input messages manual for the correct format and reenter the command, or check the status of the file using the `OP:STATUS;LISTDIR` input message if the message indicates that the process or file may not exist as printed. If the message indicates that an invalid signal has been used, refer to the input messages manual for available signals.

Seek technical assistance if any other error message is printed.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 282.
Format 2 has an OMDB key of 288.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
OP:ST;LSTDIR
OP:ST;PROC
STOP:E;ANY
STOP:E;USER
```

Output Messages

```
OP-ST,LSTDIR
OP-ST,PROC
```

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . STOP-GEN
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `STOP GEN {COMPLETED | STOPPED WITH ERROR CODE` *a* `}`

[2]
```
STOP GEN NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS
```

2. REASON FOR OUTPUT

To report the result of executing the `STOP:GEN` input message.

3. VARIABLE FIELD DEFINITIONS

a = Error code causing the process to stop. See System Error Codes Output Appendix, `SYSERR-APP`.

4. ACTION TO BE TAKEN

Correct any user execution errors by examining the procedures used for execution of the message. For certain UNIX® RTR interface errors, using the UCL option in the `STOP:GEN` input message may help. See System Error Codes Output Appendix, `SYSERR-APP`. If any other error occurs, seek technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
Format 1 has an OMDB key of 326.

Output Appendix
`SYSERR-APP`

Input Messages
```
STOP:GEN
UPD:G;BKOUT
UPD:G;COMMIT
UPD:G;ENTER
UPD:G;PROCD
UPD:G;RESTR
```

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
UPD-G,BKOUT
UPD-G,COMMIT
UPD-G,ENTER
UPD-G,PROCD
UPD-G,RESTR
```

ID . . . . . STOP-OFLBOOT
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `STOP OFLBOOT COMPLETED`

[2] `STOP OFLBOOT` *a*
b
`OLBSTATE LASTATE FUNCTION LINE`
c *d* *e* *f*

[3] `STOP OFLBOOT STARTED`
`TYPE` *g*

[4] `STOP OFLBOOT IN PROGRESS`

2. REASON FOR OUTPUT

These messages are output to report information regarding the execution of the offline boot feature.

3. VARIABLE FIELD DEFINITIONS

a = Message type.

`ABORTED` — Application request to stop the oflboot procedure; devices moved to the off-line side will be restored.

`INFO` — For information only.

`STOPPED` — Manual request to stop the oflboot procedure. If the RST option was specified, devices moved to the off-line side will be restored.

`TERMINATED` — UNIX® RTR software-initiated termination of the oflboot procedure; devices moved to the off-line side will not be restored.

b = Text line.

1. `ABORT IN PROGRESS`

   Indicates a stop was issued when a stop was already in progress. The first stop could be either manual or software initiated.

2. `CANNOT INVOKE COMMAND ON OFFLINE SIDE`

   Printed if `STOP:OFLBOOT` is invoked on the off-line side.

3. `ILLEGAL STOP OFLBOOT COMMAND`

   A second `STOP:OFLBOOT` command was issued either without the restore option or outside the time limit (one hour) to execute a `STOP:OFLBOOT` with the RST option.

4. `STOP FROM OFF-LINE SIDE NOT ALLOWED`

   Printed if `STOP:OFLBOOT` is invoked from the off-line side.

c = Current offline boot state.

d = Previous offline boot state.

e = Name of the function from which the output message originated. This field is used by UNIX® RTR in diagnosing offline boot problems.

f = Line number in the function *e* from which the output message originated. This field is used by UNIX® RTR, in conjunction with field *e*, to diagnose offline boot problems.

g = Abort type: MANUAL, APPLICATION, or SOFTWARE; indicates how abort was initiated. MANUAL is associated with a manual `STOP:OFLBOOT` request; APPLICATION, with an application-initiated abort; and SOFTWARE, with a UNIX® RTR-initiated termination.

4. ACTION TO BE TAKEN

For Formats 1, 3, and 4, no action needs to be taken.

For Format 2, the action to be taken depends on text line *b*.

Text Line: Action to be Taken:

1. No action is needed; let the first stop run to completion.
2. Execute `STOP:OFLBOOT` on the on-line side.
3. If within the 1-hour time limit (from the first `STOP:OFLBOOT` command), try `STOP:OFLBOOT` again with the RST option.
4. Execute `STOP:OFLBOOT` from the on-line side.

5. ALARMS

For a minor alarm, take action as indicated in the report.

A major alarm may not be service affecting, but take immediate action as indicated in the report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Keys

Formats 1 and 4 have an OMDB key of 690.
Format 2 has an OMDB key of 704.
Format 3 has an OMDB key of 691.

Input Messages

```
EXC:OFLBOOT
STOP:OFLBOOT
SW:OFLBOOT
```

Output Messages

```
EXC-OFLBOOT
REPT-OFLBOOT
REPT-OFFLINE
SW-OFLBOOT
```

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ID . . . . . STP-DMQ
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
STP DMQ COMPLETED
```

2. REASON FOR OUTPUT

To report that a diagnostic request awaiting execution was removed from the maintenance input request administrator (MIRA) request queue in response to either an automatic stop request or `STP:DMQ` input message.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message
`STP:DMQ`

ID . . . . . STP-GEN
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `STP GEN {COMPLETED|STOPPED WITH ERROR CODE` *a*`}`

[2]
```
STP GEN NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS
```

2. REASON FOR OUTPUT

To report the result of executing the `STP:GEN` input message.

3. VARIABLE FIELD DEFINITIONS

a = Error code causing the process to stop. See the System Update Error Codes Output Appendix, `SUPR-APP`.

4. ACTION TO BE TAKEN

Correct any user execution errors by examining the procedures used for execution of the message. For certain UNIX® RTR interface errors, using the UCL option in the `STP:GEN` input message may help. See the System Update Error Codes Output Appendix, `SUPR-APP`. If any other error occurs, seek technical assistance.

5. ALARMS

None.

6. REFERENCES

OMDB Key
Format 1 has an OMDB key of 326.

Output Appendix
`SUPR-APP`

Input Messages
```
STP:GEN
UPD:GEN;BACKOUT
UPD:GEN;COMMIT
UPD:GEN;ENTER
UPD:GEN;PROCEED
UPD:GEN;RESTORE
```

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

```
UPD-GEN,BACKOUT
UPD-GEN,COMMIT
UPD-GEN,ENTER
UPD-GEN,PROCEED
UPD-GEN,RESTORE
```

ID . . . . . SW-CU-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `SW CU ABORTED` *a*

[2] `SW CU` *b* `COMPLETED`

[3] `SW CU NOT STARTED`
`CONFLICT WITH CURRENT SYSTEM STATUS`

2. REASON FOR OUTPUT

To report the status of an `SW:CU` input message for a softswitch of the control unit (CU).

3. VARIABLE FIELD DEFINITIONS

a = Error code. See System Error Codes Output Appendix, `SYSERR-APP`.

b = Unit number of the CU switched to active.

4. ACTION TO BE TAKEN

For Format 1 or 3, take action as appropriate for the error condition.

For Format 2, take no action.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 415.
Formats 2 and 3 have an OMDB key of 314.

Output Appendix
`SYSERR-APP`

Input Message
`SW:CU`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . SW-CU-B
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `SW CU ABORTED` *a*

[2] `SW CU` *b* `COMPLETED`

[3] `SW CU NOT STARTED`
`CONFLICT WITH CURRENT SYSTEM STATUS` [*c*]

2. REASON FOR OUTPUT

To report the status of an `SW:CU` input message for a softswitch of the control unit (CU).

3. VARIABLE FIELD DEFINITIONS

a = Error code. See System Error Codes Output Appendix, `SYSERR-APP`.

b = Unit number of CU switched to active.

c = Description of conflict with current system status.

4. ACTION TO BE TAKEN

For Format 1, take action as appropriate for the error condition.

For Format 2, no action is needed.

For Format 3, determine the conflict with the current system status. After the conflict is resolved, retry the CU softswitch.

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 415.
Formats 2 and 3 have an OMDB key of 314.

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Appendix
SYSERR-APP

Input Message
SW:CU

WARNING
INAPPROPRIATE USE OF THIS MESSAGE MAY INTERRUPT OR DEGRADE SERVICE. READ PURPOSE CAREFULLY.

ID . . . . . SW-OFLBOOT
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

****WARNING****

The boot was unsuccessful and the side switch might be too. This can potentially affect call origination.

1. FORMAT

This message has three formats.

[1] `SW OFLBOOT` *a*
b
`OLBSTATE LASTATE FUNCTION LINE`
c d e f

[2] `SW OFLBOOT` *a*
{*b h* | *b h i*}
`OLBSTATE LASTATE FUNCTION LINE`
c d e f

[3] `SW OFLBOOT` *a*
h i [*j*] *b*
`OLBSTATE LASTATE FUNCTION LINE`
c d e f

2. REASON FOR OUTPUT

To report information regarding the execution of the offline boot feature.

3. VARIABLE FIELD DEFINITIONS

a = Message type.

`ABORTED` — Application request to stop the oflboot procedure; devices moved to the off-line side will be restored.

`COMPLETED` — Indicates off-line side boot has completed.

`INFO` — For information only.

`STOPPED` — Manual request to stop the oflboot procedure. If the RST option was specified, devices moved to the off-line side will be restored.

TERMINATED — UNIX® RTR software-initiated termination of the oflboot procedure; devices moved to the off-line side will not be restored.

b = Text line.

1. AIM SWITCH PRECHECKS TIMED OUT

   Printed when the timer for AIM SW:OFLBOOT off-line pre-checks expires. The pre-check results will default to failure.

2. BOOT UNSUCCESSFUL, CANNOT SWITCH

   SW:OFLBOOT was requested after a completed but unsuccessful offline boot. SW:OFLBOOT is valid only after a completed, successful offline boot or after a side switch.

3. CANNOT ACCESS ECD

   SW:OFLBOOT encountered problems accessing RC/V ECD device information.

4. CANNOT SEND MESSAGE TO USER PROCESS, PID:

   SW:OFLBOOT cannot send a message to the user process identified by its process identifier. Usually the problem is no message buffers are available.

5. CORRUPT ECD UCB RECORD FOR *h i*

   SW:OFLBOOT encountered inconsistent information about a device from the off-line ECD. For example, SW:OFLBOOT accessed the RC/V ECD UCB record for a DFC and the device type in the UCB record is not DFC. This may indicate that the off-line ECD is corrupt.

6. DIAGNOSTICS IN PROGRESS

   Indicates the specified device's RC/V ECD UCB record is marked "reserved." Most often this is the case when diagnostics, or other type of maintenance work, are running on a device.

7. INTERNAL DFC TABLE CORRUPT

   Internal data or internal tables have been corrupted.

8. INTERNAL IOP TABLE CORRUPT

   Internal data or internal tables have been corrupted.

SEE PROPRIETARY NOTICE ON COVER PAGE

9. `INTERNAL UNITS TABLE CORRUPT`

   Internal data or internal tables have been corrupted.

10. `LOW CORE IOPMASK CORRUPT`

    Data store in low core has been corrupted.

11. `LOW CORE ORIGSIDE CORRUPT`

    Data store in low core has been corrupted.

12. `NO DISK FORCED`

    A DFC is not forced.

13. `NO IOP ON THE OFFLINE SIDE`

    Indicates that IOP 0 and IOP 1 are both on the on-line side. The switch will fail because it will not have a MTTY or ROP on the other side.

14. `NOT ACTIVE`

    Printed if the specified device is not in the ACT state. The incorrect state is given in variable *j*.

15. `OFLBOOT NEEDS TO BE COMPLETED FIRST`

    Offline boot is supported; however, one is not in progress at this time, or it is in progress but has not finished booting yet.

16. `OFFLINE SYSTEM IS RUNNING IN MINIMUM CONFIGURATION MODE`

    Indicates the off-line side is running in minimum configuration mode. There is no AIM process on the off-line side to support offline boot; cannot side switch.

17. `OLBSTATE EXPECTED TO BE AFTERBOOT OR AFTERSW`

    `SW:OFLBOOT` cannot switch due to the fact that OLBSTATE is not AFTERBOOT or AFTERSW. `SW:OFLBOOT` is valid only immediately after a successful offline boot or side switch.

18. `SWITCH FROM OFF-LINE SIDE NOT ALLOWED`

    Printed if `SW:OFLBOOT` is invoked from the off-line side.

19. `SWITCH FAILED`

    Serious errors are encountered during a side switch procedure. Nevertheless, the procedure may be completed if the RETROFIT option was specified. This may mean that operation will continue without call origination. If the

RETROFIT option was not specified, the side switch procedure will be terminated. Note however, the system still remains inside the offline boot procedure.

20. `SWITCH OFFLINE SIDE COMPLETE`

    The off-line side completed its portion of a side switch. This message may be found in the OLBLOG file.

21. `SWITCH ONLINE SIDE COMPLETE`

    The on-line side completed its portion of a side switch. This message will be found only in the OLBLOG file.

22. `UNEXPECTED MESSAGE FROM AIM`

    Indicates a message has been received unexpectedly from AIM.

c = Current offline boot state.

d = Previous offline boot state.

e = Name of the function from which the output message originated. This field is used by UNIX® RTR in diagnosing offline boot problems.

f = Line number in the function *e* from which the output message originated. This field is used by UNIX® RTR, in conjunction with field *e*, to diagnose offline boot problems.

g = Process identification number.

h = String giving device type information; CU, DFC, IOP, MHD, TTY, TTYC, and DSCH, for example. Unit names are listed in the Member Numbers Appendix, `MEM-NUM-APP`, Table C, of this manual.

i = Device number. A value of zero, when used with *h*, could form DFC 0, for example.

j = Device state.

4. ACTION TO BE TAKEN

Text line: Action to be Taken:

1. Check the OLBLOG files on the off-line side to determine if AIM is having problems; if not, try the side switch again.
2. Try `SW:OFLBOOT` again with the UCL option to override the unsuccessful offline boot.

WARNING: The boot was unsuccessful and the side switch might be too. This can potentially affect call origination.

3. Wait for the side switch to fail, then manually stop offline boot. The error is in the off-line side ECD which cannot be audited; seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. Try the side switch again.
5. Seek technical assistance.
6. Wait for diagnostics to complete, fix any problems, and then try side switching again. If diagnostics are not running, the RC/V ECD UCB record is corrupt. In this case, the UCB needs to be unreserved manually or through the ECDOWN audit.
7. The side switch will not succeed. To retry the side switch, first, stop offline boot manually; second, start another offline boot; third, try the side switch again once offline boot is complete. Seeking technical assistance is recommended.
8. The side switch will not succeed. To retry the side switch, first, stop offline boot manually; second, start another offline boot; third, try the side switch again once offline boot is complete. Seeking technical assistance is recommended.
9. The side switch will not succeed. To retry the side switch, first, stop offline boot manually; second, start another offline boot; third, try the side switch again once offline boot is complete. Seeking technical assistance is recommended.
10. Seek technical assistance.
11. Seek technical assistance.
12. Force the DFC that was previously forced; try `SW:OFLBOOT` again.
13. Stop offline boot; wait for it to terminate. Try oflboot with IOP 0 or IOP 1 specified. Wait for the off-line side to be booted, then try `SW:OFLBOOT` again.
14. Restore this device; try `SW:OFLBOOT` again.
15. A `SW:OFLBOOT` can be executed only after `EXC:OFLBOOT` has executed successfully.
16. To side switch, stop oflboot and execute `EXC:OFLBOOT` without specifying the minconfig option. When this second offline boot completes, try the side switch again.
17. Wait for offline boot or side switch to complete; try `SW:OFLBOOT` again.
18. Execute `SW:OFLBOOT` from the on-line side.
19. If RETROFIT was not specified, the system will remain in offline boot. The side switch may be retried, if desired. If RETROFIT was specified, the side switch will continue; no action is needed.
20. This message is for information only; no action is needed.
21. This message is for information only; no action is needed.
22. Seek technical assistance.

5. ALARMS

For a minor alarm, take action as indicated in the report.

A major alarm may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 704.
Format 2 has an OMDB key of 705 or 708.
Format 3 has an OMDB key of 706.

Output Appendix
`MEM-NUM-APP`

Input Messages
`EXC:OFLBOOT`
`STOP:OFLBOOT`
`SW:OFLBOOT`

Output Messages
`EXC-OFLBOOT`
`REPT-OFFLINE`
`REPT-OFLBOOT`
`STOP-OFLBOOT`

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ID . . . . . SW-PORTSW
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `SW PORTSW {ABORTED|COMPLETED|DENIED|STOPPED} FOR [a] [b]`

[2]
```
SW PORTSW NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS
```

[3]
```
SW PORTSW NOT STARTED
INVALID ID FIELD
```

2. REASON FOR OUTPUT

To report the result of executing the `SW:PORTSW` input message.

3. VARIABLE FIELD DEFINITIONS

a = Port switchable subdevice name (maintenance teletypewriter [MTTY] or receive-only printer [ROP]).

b = One of the following if the result is `ABORTED` or `DENIED`:

```
ECD ERROR
UNABLE TO ACCESS DRIVER
UNABLE TO GET DRIVER STATUS
```

The input message failed due to equipment configuration database (ECD) failure or communication failure with the input/output driver (IODRV) process.

4. ACTION TO BE TAKEN

For a `STOPPED` message, check the portswitch hardware; it should be set in the automatic position, not in position 0 or 1. Both subdevices should be restored to service.

For `ABORTED` and `DENIED` messages, check the ROP output and the IODRV log files for additional help in determining the problem. IODRV log files are `/etc/log/IODRVLOG0` and `/etc/log/IODRVLOG1`. If necessary, seek technical assistance.

5. ALARMS

None. This is a manually-requested report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Key
Format 1 has an OMDB key of 164.

Input Message
`SW:PORTSW`

ID . . . . . TST-SPL
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `TST SPL UNABLE TO CREATE TEMPORARY FILE`

[2] `TST SPL MAXIMUM MESSAGES PER MINUTE IS 430`

[3] `TST SPL RATE OF MESSAGES/MINUTE WAS` *a*

[4] `TST SPL LINE` *a*

2. REASON FOR OUTPUT

Format 1 reports an open failure on file used for messages with more than eight lines or information on messages / minute errors. Format 4 responds to a `TST:SPL`, `TST:SPREL`, or `TST:ACKU` input message.

3. VARIABLE FIELD DEFINITIONS

a = Actual number of messages produced in the minute if the time to produce the requested messages / minute exceeded one minute.

4. ACTION TO BE TAKEN

If format 1 prints, retry the `TST:SPL` input message.

If format 2 prints, the process will attempt to produce 430 messages / minute.

For format 3, take no action; information only.

Format 4 contains the requested output. No action is necessary.

5. ALARMS

None.

6. REFERENCES

Input Messages
`TST:ACKU`
`TST:SPL`
`TST:SPREL`

ID . . . . . UPD-APPLY
GENERIC . . . . . UNIX RTR R1.5, R6.4 and R21.3
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `UPD APPLY REPT`
a

[2] `UPD APPLY` *b*

2. REASON FOR OUTPUT

To report the result of executing a `UPD:APPLY` command.

Format 1 is output to give information about the progress of an update, or to report an error encountered while processing the update.

Format 2 is output upon termination of the process.

3. VARIABLE FIELD DEFINITIONS

a = Information about the progress of an update, or report on an error encountered while processing the update. Error messages may be one of the following six categories.

`usage` — reports an error using field update
`internal` — reports an error found by the field update code
`system` — reports a system error that occurred
`COFF` — reports an error in the internal format of a file
`database` — reports an error in the database
`filesys` — reports an error in the file system

See the output Field Update Error Codes Appendix, `FUEC-APP`, for explanations of error codes which may appear in error messages.

b = Termination mode of the input message `UPD:APPLY;BYTER`, `UPD:APPLY;FILER`, or `UPD:APPLY;FUNCR`. The mode will be either `COMPLETED` for successful completion or `ABORTED` for termination with errors.

4. ACTION TO BE TAKEN

No action needed for informational reports. If a command aborts, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Output Appendix
FUEC-APP

Input Messages
UPD:APPLY;BYTER
UPD:APPLY;FILER
UPD:APPLY;FUNCR

ID . . . . . UPD:AUTOCHK
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
[1]    UPD AUTOCHK REPORT

SYSTEM HEALTH CHECK REPORT FOLLOWS

BEGINNING       Day Month Date hh:mm:ss Year
ENDING          Day Month Date hh:mm:ss Year

OVERALL STATUS - {PASSED|FAILED}

---------------------------------------------------------------------

BREAKPOINTS IN 3B              {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
3B IN DUPLEX MODE              {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
TEMPORARY UPDATES ON SWITCH    {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
INCONSISTENCIES                {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
SCC LINK                       {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}

[INVALID DATA DETECTED IN HEALTH CHECK STRUCTURE]
[REPORT MAY CONTAIN BAD INFORMATION]

[-----------------------------------------------------------------------]

[FAILING SYSTEM HEALTH CHECK ITEMS - ADDITIONAL INFORMATION]

[TYPE b INCONSISTENCY DETECTED]

-----------------------------------------------------------------------

UPD AUTOCHK REPORT COMPLETED


[2]    UPD AUTOCHK IN PROGRESS

[3]    UPD AUTOCHK PASSED

[4]    UPD AUTOCHK FAILED

[5]    UPD AUTOCHK COMPLETED

[6]    UPD AUTOCHK ABORTED
```

[7] UPD AUTOCHK HEALTHCHECK HAS NOT YET BEEN RUN

2. REASON FOR OUTPUT

Format 1 is in response to the UPD:AUTOCHK input message requesting a report on the status of the "health" of the switch. A short summary is printed indicating the items checked and their status at the time the report was run (ie, PASSED, FAILED, NOT CHECKED or UNABLE TO CHECK). If any of the system health check items indicate failure or unable to check, the overall status of the UPD AUTOCHK REPORT is FAILED. In addition, if inconsistencies are detected, additional information is provided.

Format 2 is in response to the UPD:AUTOCHK input message. It indicates that the request is in progress.

Format 3 is in response to the UPD:AUTOCHK input message. It indicates that the requested system health check passed.

Format 4 is in response to the UPD:AUTOCHK input message. It indicates that the requested system health check failed.

Format 5 is in response to the UPD:AUTOCHK input message. It indicates that the request has completed.

Format 6 is in response to the UPD:AUTOCHK input message. It indicates that the request has aborted.

Format 7 is in response to the UPD:AUTOCHK input message. It indicates that the requested report was not available since the system health check has not been run yet.

3. VARIABLE FIELD DEFINITIONS

b = Type of inconsistency. See UPD:VFYCON output message page for more detailed information.

4. ACTION TO BE TAKEN

This report lists any activities or situations that may interfere with the automatic application of a software update (SU). If the report shows that the overall status is failed, corrective action may be necessary. However, some instances of this report require that no action be taken. These instances are:

- conflicting switch activity
- other processes are in progress

Wait until the process in question completes or until the proper amount of time, according to the information set in the office profile, has passed.

If the UPD AUTOCHK report lists failures that indicate off-normal situations, request a copy of the off-normal report through the use of the OP:SYSSTAT input message. Refer to the OP:SYSSTAT input message in the Input Messages manual for the correct format and take the appropriate action to correct the situation. Also, any SUs in the temporary state on the switch, must be either made official (9330 poke on the 1960 page) or backed out (9340 poke on the 1960 page). Any breakpoints that exist must be cleared. If the consistency check fails, refer to the UPD:VFYCON output message in the Output Messages manual for the action to be taken according to the type of inconsistency detected.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:UTIL
UPD:AUTOCHK
UPD:BKOUT
UPD:OFC
UPD:VFYCON
```

Output Message(s):

```
OP:UTIL
UPD:AUTOMATION
UPD:REPT
UPD:VFYCON
```

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MCC Display Page(s):

1941 (SU AUTOMATION SCHEDULING)
1942 (SU AUTOMATION OFFICE PROFILE)
1943 (SU AUTOMATION HEALTH CHECK)
1960 (SU INSTALLATION)

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . UPD:AUTOMATION
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
UPD AUTOMATION  a
       b
       c
       d
```

2. REASON FOR OUTPUT

To give information or status regarding Software Update (SU) Automation.

3. VARIABLE FIELD DEFINITIONS

a = category of the message. Valid values are:

`INFO`	= Information regarding the last SU Automation request, or information on the current automatic installation that is in progress
`HEALTH CHECK`	= To report information regarding the current (or last) SU Automation Health Check
`OFFICE PROFILE`	= To report on the status of the request to update the SU Automation Office Profile.
`SCHEDULE`	= To report on a request to schedule an SU for automatic installation, or to report the status of the current SU scheduled.
`INSTALL`	= To report on the current automatic SU installation that is already in progress.

b = A brief text phrase providing information or describing an error related to the Software Update Automation activity.

c = One of the following:

`SU`	= An SU name
`SU Stage Date Time`	= The SU is scheduled for installation for the given date/time to the given installation stage.
`Reason`	= Reports the reason why SU automation is inhibited
`Info`	= Provides information on the health check condition for which it was requested.
`text phrase`	= A brief text phrase providing more information

d = Provides information on the health check condition for which it was requested.

4. ACTION TO BE TAKEN

The specific action required depends on the *b* field in the message. Most of these reports are informational in nature.

5. ALARMS

None

6. REFERENCES

Input Message(s):

```
UPD:AUTO
UPD:AUTOCHK
UPD:AUTOPROFILE
UPD:AUTOSCHED
```

Output Message(s):

```
UPD:AUTOCHK
```

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MCC Display Page(s):

1940 (EASY SU INSTALLATION)
1941 (SU AUTOMATION SCHEDULING)
1942 (SU AUTOMATION OFFICE PROFILE)
1943 (SU AUTOMATION HEALTH CHECK)
1950 (SU MAINTENANCE)
1960 (SU INSTALLATION)

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . UPD-BKOUT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `UPD BKOUT REPT`
a

[2] `UPD BKOUT` *b*

2. REASON FOR OUTPUT

To report the result of executing a `UPD:BKOUT` command.

Format 1 is output to give information about the progress of backing out an update, or to report an error encountered while processing the backout.

Format 2 is output upon termination of the process.

3. VARIABLE FIELD DEFINITIONS

a = Information about the progress of backing out an update, or report on an error encountered while processing the backout. Error messages may be one of the following six categories.

`usage` — reports an error using field update
`internal` — reports an error found by the field update code
`system` — reports a system error that occurred
`COFF` — reports an error in the internal format of a file
`database` — reports an error in the database
`filesys` — reports an error in the file system

See the output Field Update Error Codes Appendix, `FUEC-APP`, for explanations of error codes which may appear in error messages.

b = Termination mode of the input message `UPD:BKOUT`. The mode will be either `COMPLETED` for successful completion or `ABORTED` for termination with errors.

4. ACTION TO BE TAKEN

No action needed for informational reports. If a command aborts, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Output Appendix
FUEC-APP

Input Message
UPD:BKOUT

ID . . . . . UPD-BLDBOOT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `UPD BLDBOOT REPT`
a

[2] `UPD BLDBOOT` *b*

2. REASON FOR OUTPUT

To report the result of executing a `UPD:BLDBOOT` command.

Format 1 is output to give information about the progress of the bldboot process, or to report an error encountered while executing the process.

Format 2 is output upon termination of the bldboot process.

3. VARIABLE FIELD DEFINITIONS

a = Information about the progress of an update, or report of an error encountered while processing the update. Error messages may be one of the following six categories.

`usage` — reports an error using bldboot
`internal` — reports an error found by the bldboot code
`system` — reports a system error that occurred
`COFF` — reports an error in the internal format of a file
`database` — reports an error in the database
`filesys` — reports an error in the file system

See the output Field Update Error Codes Appendix, `FUEC-APP`, for explanations of error codes which may appear in error messages.

b = Termination mode of the input message `UPD:BLDBOOT`. The mode will be either `COMPLETED` for successful completion, or `ABORTED` for termination with errors.

4. ACTION TO BE TAKEN

No action needed for informational reports. If a command aborts, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Output Appendix
FUEC-APP

Input Message
UPD:BLDBOOT

ID . . . . . UPD-CLR
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `UPD CLR REPT`
a

[2] `UPD CLR` *b*

2. REASON FOR OUTPUT

To report the result of executing a `UPD:CLR` command.

Format 1 is output to give information about the progress of clearing an update, or to report an error encountered while processing the clear.

Format 2 is output upon termination of the process.

3. VARIABLE FIELD DEFINITIONS

a = Information about the progress of clearing an update, or report of an error encountered while processing the clear. Error messages may be one of the following six categories.

`usage` — reports an error using field update 1
`internal` — reports an error found by the field 1 update code 1
`system` — reports a system error that occurred 1
`COFF` — reports an error in the internal format 1 of a file 1
`database` — reports an error in the database 1
`filesys` — reports an error in the file system

See the output Field Update Error Codes Appendix, `FUEC-APP`, for explanations of error codes which may appear in error messages.

b = Termination mode of the input message `UPD:CLR`. The mode will be either `COMPLETED` for successful completion, or `ABORTED` for termination with errors.

4. ACTION TO BE TAKEN

No action needed for informational reports. If a command aborts, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Output Appendix
FUEC-APP

Input Message
UPD:CLR

ID . . . . . UPD:COMMAND
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`UPD COMMAND` *a* [*b*] *c*

2. REASON FOR OUTPUT

To report progress of software update commands.

3. VARIABLE FIELD DEFINITIONS

a = The command poke that this progress message is for. Valid values are:

APPLY	AUTO	AUTOCHK	AUTOPROFILE	AUTOSCHED
BKOUT	BLDBOOT	BLOCK	BOLO	CHG
CLR	CLRBWM	CSCANS	DISPLAY	DISPLYUPD
EASYSU	EXALL	EXNXT	EXPAND	FTRC
GENP	INITPW	NXTWNDW	PRINT	PRVWNDW
RCVRY	RECOVERY	REBOOT	REDUCE	RESET
SOAK	START	STOP	OFC	UPDCON
UPDDSPLY	UPNAME	VFY	VFYBWM	VFYCON

b = The SU name or product path associated with the progress message.

c = The command progress status with the following values:

```
COMPLETED
FINISHED
ABORTED
PARTIALLY COMPLETE
CONTINUES
STARTED
STOPPED
STOPPED - BY USER REQUEST
ABORTED SEE ROP AND 1960 PAGE
STOPPED AFTER SOAK, SEE 1940 PAGE
ALREADY EXECUTING
IN PROGRESS
PFILE CREATION IN PROGRESS
SECTION COMPLETED BUT NOT TIMED
APPLY SECTION COMPLETED
BKOUT SECTION COMPLETED
OFFICIAL SECTION COMPLETED
SOAK SECTION COMPLETED
THE SU IS ALREADY OFFICIAL
```

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

None. This message is for information only.

5. ALARMS

None

6. REFERENCES

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ID . . . . . UPD:CSCANS
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

[1]
```
UPD CSCANS : ATTEMPTS TO CONNECT, TIME: hh:ii
```

[2]
```
UPD CSCANS : CAN NOT SEND UPLOAD QUERY RETURN MESSAGE TO CSCANS
```

[3]
```
UPD CSCANS :
  INVALID FILE NAME FORMAT IN PATHNAME, PATHNAME = a
```

[4]
```
UPD CSCANS :
  WARNING: CANNOT SEND MESSAGE TO SUEXPAND PROCESS
```

[5]
```
UPD CSCANS :
  CONNECTION ESTABLISHED
  FILES WILL BE STORED IN b
  AVAILABLE SPACE = c BLOCKS
```

[6]
```
UPD CSCANS : DATA LINK DISCONNECTED
```

[7]
```
UPD CSCANS :
  [BWM DOWNLOAD SESSION COMPLETED SUCCESSFULLY]
  d FILES RECEIVED UNDER e:
          f
          .
          .
          .
  ELAPSED TIME hh:mm  SPACE REMAINING g
  [j ERROR k]
```

[8]
```
UPD CSCANS :
  NO BWM FILES DOWNLOADED
```

```
[9]
UPD CSCANS :
  CSCANS PASSWORD FILE NOT FOUND OR INVALID PASSWORD FORMAT
  NO BWM FILES DOWNLOADED

[10]
UPD CSCANS :
  SECURITY VIOLATION -- PASSWORD MISMATCH

[11]
UPD CSCANS :
  UPD CSCANS DETECTED DATA LINK DISCONNECTION

[12]
UPD CSCANS : NO FILE TRANSFER ACTIVE

[13]
UPD CSCANS STOPPED l

[14]
UPD CSCANS ERROR m [,ERRNO = n]

[15]
UPD CSCANS ERROR:
      CAN NOT ALLOCATE SPACE FOR PASSWORD, KEY OR ATTEMPT
      CSCANS STOPPED

[16]
UPD CSCANS ERROR: -r & -w OPTIONS MUST BE SPECIFIED

[17]
UPD CSCANS ERROR: INCOMING PASSWORD MUST BE SPECIFIED

[18]
UPD CSCANS ERROR, FAILED TO CONNECT TO PORT
```

2. REASON FOR OUTPUT

Format 1 reports that a remote system tried to connect to the switch via CSCANS interface, and reports the time for this attempt.

Format 2 reports that the CSCANS file receive process (SUfilercv) could not send an upload query return message to the remote CSCANS system. The return message contains the last official software update (SU) number from the switch. The link is disconnected upon encountering this error.

Format 3 reports that the SUfilercv process sent a message with an invalid pathname to the SUexpand process.

Format 4 is a warning message indicating that the SUfilercv process failed to send a message to SUexpand. No SU files will be expanded.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 5 reports that a remote system connected to the switch successfully via CSCANS interface.

Format 6 reports that the connection over the scans data link was disconnected.

Format 7 reports that a SU download via CSCANS interface completed successfully. Files downloaded, elapsed time, and the remaining file space were also output.

Format 8 reports that no SU files were received on the switch.

Format 9 reports that the CSCANS password file was missing or had an invalid format. No SU files will be downloaded.

Format 10 reports that a security violation occurred because the password from the CSCANS system and the switch did not match. The link is disconnected upon encountering this error.

Format 11 reports that the remote system disconnected the data link for an unknown reason.

Format 12 reports that there is no CSCANS download currently in progress.

Format 13 reports the progress of the `UPD:CSCANS-STOP` input message.

Format 14 is used to report the termination of the SUfilercv process due to an error unrelated to the actual transmission of files. This message may occur either before, during or after the transmission of files.

Format 15 reports that the SUfilercv process failed to allocate working space for the password file contents.

Format 16 reports that the sugetty process did not execute SUfilercv process with correct parameters. The link is disconnected upon encountering this error.

Format 17 reports that the sugetty process did not execute SUfilercv process with password as a parameter. The link is disconnected upon encountering this error.

Format 18 reports that the SUfilercv failed to connect to its system port.

3. VARIABLE FIELD DEFINITIONS

a = The pathname that SUfilercv sent to the SUexpand process.

b = The pathname where the SU files were stored in the switch.

c = File space, expressed as the number of blocks before SU download session start.

d = Number of files received in current download session.

e = Complete pathname for the SU files received.

f = List of files received in current download session.

g = File space, in blocks, left after the current download session.

h = Hour.

i = Minute.

SEE PROPRIETARY NOTICE ON COVER PAGE

j = Pathname of a file issued by the sending end which was not received by the CSCANS file receive process.

k = Error code specifying the reason why the file was not received by the CSCANS file receive process. Valid values are:

`01` = Insufficient space on disk to store the file.
`02` = File length exceeds the maximum length permitted.
`03` = The pathname being processed matches that of a file already on disk.
`04` = Could not create incoming file on disk.
`05` = File transmission was interrupted.

l = Code indicating reason for termination. Valid values are:

`0` = Successful completion of the file transfer session.
`1` = Time limit to receive messages from the remote system has expired.
`2` = Unable to resynchronize messages with the remote sender.
`3` = Unable to resynchronize files with the remote sender.
`4` = Bad file sequence number.
`5` = Insufficient disk space to store incoming files.
`6` = Too many files interrupted.
`7` = An internal error occurred in the process.
`8` = The file receive process was terminated in response to the UPD:CSCANS-STOP input message.
`9` = An I/O error occurred in writing a file to disk.
`10` = The remote sender aborted transmission.
`11` = A bad disconnect message was received from the sender.
`12` = CSCANS password file does not exist.
`13` = Security violation, too many unauthorized connection attempts.

m = Reason for termination. Valid values are:

`1` = A bad argument was passed to the file receive process.
`2` = Failed stat call on base directory.
`3` = Failed ustat call on base directory.
`4` = Could not enable reception of messages.
`5` = Failed to read connect message or received invalid connect message from the remote sending system.
`6` = A `UPD:CSCANS` request failed because of invalid request message.

n = The system error number. The system error number will be printed if *a*=2, 3 or 4.

4. ACTION TO BE TAKEN

Verify that all files have been received. If required, try to download software update again later.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:CSCANS;REPT
UPD:CSCANS;STOP
```

Output Message(s):

```
UPD:CSCANS-REPT
```

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ID . . . . . UPD:CSCANS-REPT
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MTCE

1. FORMAT

```
UPD CSCANS REPORT:
      a FILE RECEIVED UNDER b:
       c
      .
      .
      .
      FILE CURRENTLY DOWNLOADING: c
      ELAPSED TIME dd:dd SPACE REMAINING e
      [f ERROR g]
```

2. REASON FOR OUTPUT

To report the current status of a software update download session through Customer Service Computer Access Network Standards (CSCANS) machine. This report displays the number of files received, and the name of the file currently downloading. It also displays the total time used for receiving software update files and the amount of disk space available for receiving more software update files.

3. VARIABLE FIELD DEFINITIONS

a = The number of files received.

b = Complete path name of the software update files received.

c = The name of the files received.

Note: The file names displayed in *c* may not be consistent with the actual file names seen under the software update directory. This is the result of the software update expansion mechanism which changes the file name from the compressed file name to the original file name.

d = The total number of hours and minutes used for receiving files, in the form of hours:minutes.

e = Amount of space remaining under `/etc/bwm` that can be used to receive more software update files.

f = Pathname of a file issued by the sending end which was not received by the CSCANS file receive process.

g = Error code specifying the reason why the file was not received by the CSCANS file receive process. Valid values are:

`01` = Insufficient space on disk to store the file.
`02` = File length exceeds the maximum length permitted.

SEE PROPRIETARY NOTICE ON COVER PAGE

03 = The pathname being processed matches that of a file already on disk.
04 = Could not create incoming file on disk.
05 = File transmission was interrupted.

4. ACTION TO BE TAKEN

Verify that all files have been received. If the software update expansion mechanism is not turned on, the file names in the software update directory should be consistent with those from CSCANS. If the software update expansion mechanism is turned on, the files in the software update directory should be the expanded version of the files sent through the CSCANS machine.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:CSCANS;REPT
UPD:CSCANS;STOP
UPD:INITPW
```

Output Message(s):

```
UPD:CSCANS
```

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ID . . . . . UPD-DFC,FLASH
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has five formats.

[1] `UPD FLASH DFC` *a* [`CHECKSUM`] `NOT STARTED` *b c*

[2] `UPD FLASH DFC` *a* [`CHECKSUM`] `STOPPED` *b c*

[3] `UPD FLASH DFC` *a* [`CHECKSUM`] `ERROR` *b c*

[4] `UPD FLASH DFC` *a* [`CHECKSUM`] `ABORTED` *b*

[5] `UPD FLASH DFC` *a* [`CHECKSUM`] `COMPLETED` *d*

2. REASON FOR OUTPUT

To report the result of executing a `UPD:FLASH;DFC` input command.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the disk file controller (DFC).

b = Process step or reason code:

f03 — failed to open the ECD

f04 — see DKDRV report on the ROP

f06 — failed to get UCB by name

f07 — Invalid DFC model

f08 — unable to open the pumpfile

f09 — failed to open pumpcode file

f0c — failed to allocate buffer

f0e — failed to read the pumpfile header

f13 — failed to reserve the UCB

f16 — failed to assign SDF name for DFC

f19 — failed to open SDF for DFC

f1b — failed to enable message reception

f20 — invalid pumpcode file

f25 — unable to `lseek()` to beginning of file

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f2a — DFC auto pump failed

f2e — DFC pump failed

f31 — DFC pump failed notification

f34 — process timed out

f37 — failed to close special device file

f3a — failed to release special device file

f3c — failed to un-reserve UCB

f3e — failed to close ECD

f3f — failed to close pumpfile

f41 — unable to read pumpfile

f44 — message to port failure

f47 — message reception failure

f4c — terminated externally with signal

f4e — invalid header magic number

f51 — invalid pump header

f54 — unused portion of the pump header is not zero

f61 — failed to read the pumpfile header

f63 — invalid header magic number

f65 — unable to open pumpfile

f67 — fw and pumpfile are incompatible - issue

f69 — fw and pumpfile are incompatible - generic

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

d = There are two formats for this field:

`VALID PUMPCODE` — pumpcode has passed the hashsum check

`INVALID PUMPCODE` — pumpcode failed the hashsum check

4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried. The pump failure can also be caused by the incompatibility between the pumpcode and firmware. The pump can also fail due to a corrupted pumpcode file. A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

Output Appendix
SYSERR-APP

Input Messages
UPD:FLASH;DFC

Output Messages
UPD-FLASH,DFC

ID . . . . . UPD-DISPLAY-A
GENERIC . . . . . UNIX RTR R1.5, R6.4 and R21.3
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `UPD DISPLAY REPT [CONTINUE]`
a

[2] `UPD DISPLAY` *b*

2. REASON FOR OUTPUT

To report the result of executing a `UPD:DISPLAY` command.

Format 1 is output to give information about the progress of displaying an update, or to report an error encountered while processing the display.

Format 2 is output upon termination of the process.

3. VARIABLE FIELD DEFINITIONS

a = Information about the progress of displaying an update, or report of an error encountered while processing the display. Error messages may be one of the following six categories.

`usage` — reports an error using field update
`internal` — reports an error found by the field update code
`system` — reports a system error that occurred
`COFF` — reports an error in the internal format of a file
`database` — reports an error in the database
`filesys` — reports an error in the file system

See the output Field Update Error Codes Appendix, `FUEC-APP`, for explanations of error codes which may appear in error messages.

b = Termination mode of the input message `UPD:DISPLAY`. The mode will be either `COMPLETED` for successful completion, or `ABORTED` for termination with errors.

4. ACTION TO BE TAKEN

No action needed for informational reports. If a command aborts, seek technical assistance.

If the information requested in the `UPD:DISPLAY` input message is not found in any of the records in the field update database, or if the field update database contains no records, then only the `UPD-DISPLAY, COMPLETED` output message will be printed (no `UPD-DISPLAY, REPT` message will be printed).

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Output Appendix
`FUEC-APP`

Input Message
`UPD:DISPLAY`

ID . . . . . UPD:DISPLAY-B
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MTCE

1. FORMAT

```
[1] UPD DISPLAY UPDATE DATABASE RECORD NUMBER=a GEN=b
          SUNAME=c     PRODUCT PATH=d     TARGET=e
          APPLY DATE=f     UTILID=g       PNUM=h
          HDR SEQUENCE=i   LAST HDR SEQUENCE=j
          SAVED BOLO PATH=k     BOLO SUM=l
          SHADOW FILE PATH=k
          SUPRODUCT FILE=k
          STATUS=m
               [PERMED]     [INMEMORY]     [TEMPED]     [OGEN]
               [OILD]       [RECLAIMED]    [RECL_ABRT]  [SGEN]
          ATTRIBUTES=n
               [ACF]        [BOOTIMAGE]    [KERNAL]     [SUPERVISOR]
               [SHRLIB]     [KILLABLE]     [BYTER]      [CRC_INTERNAL]
               [FUNCR]      [FILER]        [PSEUDO]     [CRC_EXTERNAL]
               [3B_PROCESS] [PACKINFO]     [UFFN]       [NEW_PRODUCT]
          APPLY UFILE=k
          APPLY PFILE=k
          RECLAIM UFILE=k
          RECLAIM PFILE=k
          [BYTER OVERWRITES:]
               o   p   q
     DISPLAY OF UPDATE RECORD r

[2] UPD DISPLAY OF UPDATE DATABASE RECORD NUMBER=a  GEN=b
          PRODUCT PATH=d     SUNAME=c
          APPLY DATE=f       HDR SEQUENCE NUMBER=i
          STATUS=m
               [PERMED]     [INMEMORY]     [TEMPED]     [OGEN]
               [OILD]       [RECLAIMED]    [RECL_ABRT]  [SGEN]
          ATTRIBUTES=n
               [ACF]        [BOOTIMAGE]    [KERNAL]     [SUPERVISOR]
               [SHRLIB]     [KILLABLE]     [BYTER]      [CRC_INTERNAL]
               [FUNCR]      [FILER]        [PSEUDO]     [CRC_EXTERNAL]
               [3B_PROCESS] [PACKINFO]     [UFFN]       [NEW_PRODUCT]
     DISPLAY OF UPDATE RECORD COMPLETED

[3] UPD DISPLAY SUMMARY REPORT GEN=b
          LAST OFFICIAL BWM : c  STATUS:{APPLY / SOAK IN PROGRESS|OFFICIAL}
          LAST CRAFT BWM    : c  STATUS:{APPLY / SOAK IN PROGRESS|OFFICIAL}
          TEMPORARY BWM     : c  STATUS:{APPLY / SOAK IN PROGRESS|OFFICIAL}
```

SEE PROPRIETARY NOTICE ON COVER PAGE

```
[4] UPD DISPLAY BACKUP DATABASE RECORD NUMBER=a GEN=b
          PRODUCT PATH=d     SUNAME=c
          APPLY DATE=f     ATTRIBUTES=n
               [ACF]         [BOOTIMAGE]    [KERNAL]     [SUPERVISOR]
               [SHRLIB]      [KILLABLE]     [BYTER]      [CRC_INTERNAL]
               [FUNCR]       [FILER]        [PSEUDO]     [CRC_EXTERNAL]
               [3B_PROCESS] [PACKINFO]      [UFFN]       [NEW_PRODUCT]
```

2. REASON FOR OUTPUT

Format 1 reports the result of executing the UPD:DISPLAY input message in verbose form.

Format 2 reports the result of executing the UPD:DISPLAY input message in normal form.

Format 3 is printed when the SUM option is chosen in UPD:DISPLAY.

Format 4 is printed when the BACKLOG option is chosen in UPD:DISPLAY.

3. VARIABLE FIELD DEFINITIONS

a = Unique internally assigned update number. This uniquely identifies each update record.

b = The generic identifier as it appears in the ECD.

c = Software update package name.

d = Pathname of official product being updated.

e = Processor type for this update.

f = Time and date of creation of this update item, in the form weekday month day hour:minute:second year.

g = The updated process's utility identification number.

h = The process ID of the running version of the process. This is only set for killable function replacement updates.

i = The software update package sequence number for this update which appears in the HDR file.

j = The previous software update package sequence number.

k = Pathname of a working file.

l = The sum of the saved bolo file used for verifying its integrity.

m = The current status flag for this update item. Below are the particular flags that are set 4 per line. Valid values are:

PERMED = Update has been made official and is permanent in the system.
INMEMORY = Update has been installed in incore memory.
TEMPED = The new version of the product file has been installed in a temporary state.
OGEN = Update has been run through the overwrite generator to convert the relocatable .m file(s) into an absolute .u file.
OILD = Update has been run through the overwrite incremental loader.
RECLAIMED = Update has been audited to reclaim patchspace.

SEE PROPRIETARY NOTICE ON COVER PAGE

RECL_ABRT = Update aborted attempting to reclaim patchspace.
SGEN = Update has been run through system generation to recreate the boot image to include this update.

n = The attribute flag for this update item. Below are the particular flags that are set 4 per line. Valid values are:

ACF = Update is to an always contiguous product which means the product must always remain contiguous.
BOOTIMAGE = Update product is part of the boot image.
KERNAL = Update product is a kernel level process.
SUPERVISOR = Update product is a supervisor level process.
SHRLIB = Update product is a shared library.
KILLABLE = Update product is a killable process.
BYTER = Update is a byte overwrite type.
CRC_INTERNAL = Update has internally stored CRC value.
FUNCR = Update is a function overwrite type.
FILER = Update is a file replacement type.
PSEUDO = This update record is a dummy update used for place holding.
CRC_EXTERNAL = Update has externally stored CRC value.
3B_PROCESS = Update is to a process that runs on the 3B20/3B21.
PACKINFO = Update uses PACKINFO= to denote update products.
UFFN = Update uses UFFN= to denote update products.
NEW_PRODUCT = This is a newly introduced update product.

o = For byter updates only, the starting address of the byter overwrite.

p = New byter update values.

q = Old byter update values.

r = CONTINUES if there is additional information to be printed for this update record otherwise COMPLETED.

4. ACTION TO BE TAKEN

There is no action to take since this is an only informational output message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):
UPD:DISPLAY

Output Message(s):
UPD:COMMAND
UPD:REPT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . UPD-FLASH
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `UPD FLASH MEMORY` *a b* `STARTED`

[2] `UPD FLASH MEMORY` *a b* `NOT SUPPORTED` *c*

[3] `UPD FLASH MEMORY` *a b* `ABORTED` *d*

[4] `UPD FLASH MEMORY` *a b* `IN PROGRESS` *e*

[5] `UPD FLASH MEMORY` *a b* `FAILED` *f*

[6] `UPD FLASH MEMORY` *a b* `COMPLETED`

2. REASON FOR OUTPUT

To report the start and execution of the `UPD:FLASH` input message. FLASH is a device designed to be programmed in a system with a standard 5 volt supply.

3. VARIABLE FIELD DEFINITIONS

a = Member name (`HSDC`, `MTTYC`, `SCSDC`, `SDLC`, or `TTYC`).

b = Member number (0-255).

c = Reason why the device is not supported.

`101` — The member name is not that of a peripheral controller which supports the updating of FLASH memory.

`104` — The value in the u_mv field of the ECD indicates that this version of the peripheral controller does not support the updating of FLASH memory.

`111` — The value in the pcpackcode field of the ECD indicates that this peripheral controller does not support the updating of FLASH memory.

`112` — The u_dtype field in the ECD does not indicate the type of peripheral controller associated with the "member name."

`113` — Not allowed to update FLASH memory (lcall failed).

`114` — Not allowed to update FLASH memory (no permission).

`115` — Timeout - no response from update permission checking process.

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d = Reason why the UPD:FLASH request was aborted.

`102` — Cannot open /dev/ecd.

`103` — Cannot get ucb for device from ecd for device.

`105` — Cannot reserve ucb for device.

`106` — Cannot create output file used by IODRV to update FLASH memory.

`107` — Cannot send message to IODRV to update FLASH memory.

`108` — System indicates message there but message not from IODRV process.

`109` — Update FLASH memory job timed out.

`110` — Cannot write all of data to output file used to update FLASH memory.

`116` — Not enough FLASH data files to update FLASH memory.

`117` — More FLASH data files than are needed to update FLASH memory.

`118` — FLASH data file has a size other than 49160.

`200` — System function getdbseg failed.

`201` — System function lla_iatt failed.

`202` — System function lla_rdget failed.

`203` — Get UCB RID of possible peripheral controller unit failed.

`204` — Get up pointer of possible peripheral controller unit failed.

`205` — The up pointer does not point to an IOP.

`206` — The IOP to which this peripheral controlled is not in active state. The IOP must be active before the FLASH memory on the peripheral controller can be updated.

`207` — The peripheral controller is not in OOS state. The peripheral controller must be OOS before the FLASH memory on the board can be updated.

e = Count of the *IN PROGRESS* messages displayed. The first message is displayed after a message has been sent to the IODRV process requesting that the FLASH memory on the peripheral controller be updated. Subsequent messages are displayed while the FLASH memory is in the process of being updated by the IODRV process.

f = Reason why the FLASH memory on the peripheral controller was not updated. Contact your technical support center for assistance.

`10080` — Cannot get ucb into uarray.

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`10081` — Failure returned by "proc_diag_ufm".

`10082` — Invalid mv value.

`10083` — Could not get a timing chain entry.

`b0000` — Timeout in peripheral controller sequence number 0.

`b0001` — Timeout in peripheral controller sequence number 1.

`b0002` — Timeout in peripheral controller sequence number 2.

`b0003` — Timeout in peripheral controller sequence number 3.

`b0004` — Timeoui in peripheral controller sequence number 4.

`b0005` — Timeout in peripheral controller sequence number 5.

`b0006` — Timeout in peripheral controller sequence number 6.

`b0007` — Timeout in peripheral controller sequence number 7.

`b0008` — Timeout in peripheral controller sequence number 8.

`b000c` — FLASH memory timeout.

`1a000b` — Could not queue command to peripheral controller.

`1a000c` — Could not queue command to peripheral controller.

`1a000d` — Could not queue command to peripheral controller.

`1a000e` — Could not queue command to peripheral controller.

`1a000f` — Unable to get page table address to read version number.

`1a0010` — Could not queue command to peripheral controller.

`1a0011` — Could not queue command to peripheral controller.

`1a0012` — Could not queue command to peripheral controller.

`1a0013` — Unable to allocate buffer for update FLASH memory return message.

`1a0014` — Bad internal sequence number.

`1a0020` — Could not get a timing chain entry.

`1a0021` — Could not get a timing chain entry.

`1a0022` — Could not get a timing chain entry.

`1a0023` — Could not get a timing chain entry.

`1a0024` — Could not get a timing chain entry.

`1a0025` — Could not get a timing chain entry.

`1a0026` — Could not get a timing chain entry.

`1b000a` — Attempt to free use of pump code file failed.

`1b000b` — Cancellation of request for pump code file failed.

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`1b000c` — Unable to assign a DMA slot.

`1b000d` — Could not queue command to peripheral controller.

`1b000e` — Could not queue command to peripheral controller.

`1b000f` — Could not queue command to peripheral controller.

`1b0010` — Unable to get a page table address.

`1b0011` — Unsuccessful return from the "cfread" function.

`1b0012` — FLASH memory on the board is already being updated.

`1b0014` — Could not get ucb associated with peripheral controller.

`1b0015` — Cancellation of request for pump code file failed.

`1bXX17` — All of the FLASH files are not present. "XX" is the relative number of the FLASH file that is not there.

`1bXX18` — A FLASH data file has an incorrect size, not 49160. "XX" is the relative number of the FLASH file that is not there.

`1b0019` — There are more FLASH data files than expected.

`1b0020` — Could not get a timing chain entry.

`1b0021` — Could not get a timing chain entry.

`1b0022` — Could not get a timing chain entry.

`1b014X` — Unsuccessful read of FLASH data file. Requester stack overflow. Requester stack overflow. "X" is the relative number of the failing FLASH data file.

`1b024X` — Unsuccessful read of FLASH data file. File request stack overflow. "X" is the relative number of the failing FLASH data file.

`1b034X` — Unsuccessful read of FLASH data file. Message buffer overflow. "X" is the relative number of the failing FLASH data file.

`1b044X` — Unsuccessful read of FLASH data file. Failure in setting timer. "X" is the relative number of the failing FLASH data file.

`1b054X` — Unsuccessful read of FLASH data file. Could not open common file, bad status in ack msg. "X" is the relative number of the failing FLASH data file.

`1b064X` — Unsuccessful read of FLASH data file. Could not get segment number of file buffer for "file manager" read. "X" is the relative number of the failing FLASH data file.

`1b074X` — Unsuccessful read of FLASH data file. Memory manager unable to allocate memory for the IODRV. "X" is the relative number of the failing FLASH data file.

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`1b084X` — Unsuccessful read of FLASH data file. Error in reading common file. "X" is the relative number of the failing FLASH data file.

`1b094X` — Unsuccessful read of FLASH data file. Open or read message to "file manager" timed out. "X" is the relative number of the failing FLASH data file.

`1b0a4X` — Unsuccessful read of FLASH data file. File in invalid state upon timeout. "X" is the relative number of the failing FLASH data file.

`1b0b4X` — Unsuccessful read of FLASH data file. Zero Length File expected for FLASH programming. "X" is the relative number of the failing FLASH data file.

`1cZZ0a` — Peripheral controller FLASH programming failure.

`1cZZ0b` — Peripheral controller FLASH programming failure.

`1cZZ0c` — Peripheral controller FLASH programming failure.

`1c000d` — Peripheral controller not plugged in.

`1cZZ0e` — Peripheral controller FLASH programming failure.

`1cZZ0f` — Peripheral controller FLASH programming failure.

`1cZZ10` — Peripheral controller FLASH programming failure.

`1cZZ11` — Peripheral controller FLASH programming failure.

`1cZZ12` — Peripheral controller FLASH programming failure.

`1cZZ13` — Peripheral controller FLASH programming failure.

`1c0014` — Invalid sequence number.

`1c0020` — Could not get a timing chain entry.

`1c0021` — Could not get a timing chain entry.

`1c0030` — Unidentified / unexpected response for FLASH programming from peripheral controller.

`1c0031` — Unidentified / unexpected response for FLASH programming from peripheral controller.

`1c0032` — Unidentified / unexpected response for FLASH programming from peripheral controller.

`1c0033` — Unidentified / unexpected response for FLASH programming from peripheral controller.

`1c0034` — Unidentified / unexpected response for FLASH programming from peripheral controller.

`1c0035` — Unidentified / unexpected response for FLASH programming from peripheral controller.

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`1c0036` — Unidentified / unexpected response for FLASH programming from peripheral controller.

`1c0037` — Unidentified / unexpected response for FLASH programming from peripheral controller.

`1c0038` — Unidentified / unexpected response for FLASH programming from peripheral controller.

ZZ = Failing completion code from peripheral controller.

`02` — Bad checksum on pump.

`03` — Invalid job code.

`04` — Bad byte count for pump command.

`05` — Bad restore parameters .

`06` — Invalid pump state.

`07` — No PSA record found in pump file or reached end of data too soon.

`08` — Failure to program FLASH memory.

`09` — Failure to clear and erase FLASH memory.

`0a` — Amount of Data exceeds size of FLASH memory.

`0b` — Invalid hash sum over updated FLASH memory.

4. ACTION TO BE TAKEN

No action is required for `STARTED`, `IN PROGRESS`, or `COMPLETED` messages.

`ABORTED` or `NOT-SUPPORTED` messages usually indicate that a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and retry the input request.

For `FAILED` messages, contact your technical support center for assistance.

The receive only printer (ROP) output and IODRV log files can be helpful in determining the problem. IODRV log files are `/etc/log/IODRVLOG0` and `/etc/log/IODRVLOG1`. If necessary, seek technical assistance.

5. ALARMS

None. This is a manually-requested report.

6. REFERENCES

OMDB Key(s)
The OMDB key is 746.

Input Message(s)
`UPD:FLASH`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . UPD-FTRC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `UPD FTRC REPT`
a

[2] `UPD FTRC` *b*

2. REASON FOR OUTPUT

To report the result of executing a `UPD:FTRC` command.

Format 1 is output to give information about the progress of a function trace, or to report an error encountered while processing the function trace.

Format 2 is output upon termination of the process.

3. VARIABLE FIELD DEFINITIONS

a = Information about the progress of a function trace, or report of an error encountered while processing the function trace. Error messages may be one of the following six categories.

`usage` — reports an error using field update
`internal` — reports an error found by the field update code
`system` — reports a system error that occurred
`COFF` — reports an error in the internal format of a file
`database` — reports an error in the database
`filesys` — reports an error in the file system

See the output Field Update Error Codes Appendix, `FUEC-APP`, for explanations of error codes which may appear in error messages.

b = Termination mode of the input message `UPD:FTRC`. The mode will be either `COMPLETED` for successful completion, or `ABORTED` for termination with errors.

4. ACTION TO BE TAKEN

No action needed for informational reports. If a command aborts, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Output Appendix
FUEC-APP

Input Message
UPD:FTRC

ID . . . . . UPD-G,APPLPROC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has nine formats.

[1] `UPD GEN APPLPROC CANNOT GET THE TERMINAL TYPE`

[2] `UPD GEN APPLPROC ERROR: CANNOT GET THE TERMINAL TYPE`

[3] `UPD GEN APPLPROC ERROR: ARG KEYWORD ON CMD LINE WITHOUT ARGUMENT`

[4] `UPD GEN APPLPROC ERROR: INVALID DATA KEYWORD ON CMD LINE`

[5] `UPD GEN APPLPROC ERROR: CANNOT EXECUTE THE APPLPROC`

[6] `UPD GEN APPLPROC APPLICATION PROCESS IS EXECUTING`

[7] `UPD GEN APPLPROC APPLICATION PROCESS EXECUTED WITH ARGUMENT`

[8] `UPD GEN APPLPROC APPLICATION PROCESS EXECUTED WITHOUT ARGUMENT`

[9] `UPD GEN APPLPROC APPLICATION PROCESS HAS TERMINATED SUCCESSFULLY`

2. REASON FOR OUTPUT

To report the execution status of the dummy application process and whether or not it was executed with an argument on the command line. If an application inserts their own application process in place of the dummy application process, these output messages may no longer be valid.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

For formats 1 - 9, when the dummy application process is executed, no action needs to be taken, since the dummy application process performs no actions except print out these output messages.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
This message has an OMDB key of 362.

Input Messages
```
OP:G;READLOG
UPD:G;BKOUT
UPD:G;COMMIT
UPD:G;CONT
UPD:G;ENTER
UPD:G;PROCD
UPD:G;RESTR
```

Output Messages
```
OP-G,READLOG
UPD-G,APPLPROC
UPD-G,BKOUT
UPD-G,COMMIT
UPD-G,CONT
UPD-G,ENTER
UPD-G,PROCD
UPD-G,RESTR
```

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . UPD-G,BKOUT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `UPD GEN BACKOUT COMPLETED`

[2] `UPD GEN BACKOUT STOPPED WITH ERROR CODE` *a*

[3] `UPD GEN BACKOUT UPON COMPLETION BOOT SYSTEM SELECTING` *b*

[4] `UPD GEN BACKOUT TRANSFERRING CONTROL TO APPLICATION`

[5] `UPD GEN BACKOUT APPLICATION COMPLETION WITHIN` *c*`SECONDS`

[6] `UPD GEN BACKOUT NOT STARTED CONFLICT WITH CURRENT SYSTEM STATUS`

2. REASON FOR OUTPUT

To report the result of executing a `UPD:GEN;BACKOUT` input message, and to inform the craft as to which boot option should be used when booting the old generic.

3. VARIABLE FIELD DEFINITIONS

a = Error code causing the process to stop. See the System Update Error Codes Appendix, `SUPR-APP`.

b = Boot options:

`PRIMARY ROOT` — Select primary root on emergency action interface (EAI).

`BACKUP ROOT` — Select backup root on EAI.

`MHD {0|1}` — Force moving head disk (MHD) specified on EAI (off-line disk method only).

c = Number of seconds for application processing.

4. ACTION TO BE TAKEN

Format 1 indicates the backout process has completed. There is no action to be taken when this output occurs.

Format 2 indicates that the backout stopped due to an error. Error codes are defined in the System Update Error Codes Appendix, `SUPR-APP`. Along with each error code is a

description of the appropriate action to take.

Format 3 indicates that the backout is completed, boot the system as directed in this message. The force for `MHD {0/1}` should be left in effect until instructions to remove it are output by `UPD-GEN, COMMTS` or `UPD-GEN, RESTORE`.

Formats 4 and 5 are informal messages and do not require any action to be taken.

Format 6 indicates that a condition exists which will not allow the `UPD-GEN, BACKOUT` process to start. Possibly `/prc/supr/backout` does not exist or is not executable. If the file exists and is not executable, make it executable. If the file does not exist or does exist and is already executable retry the command. If the message is output again, seek technical assistance.

5. ALARMS

None.

6. REFERENCES

OMDB Key
Format 3 has an OMDB key of 326.

Output Appendix
`SUPR-APP`

Input Messages
```
OP:G;READLOG
STOP:GEN
STP:GEN
UPD:G;BKOUT
UPD:G;COMMIT
UPD:G;CONT
UPD:G;ENTER
UPD:G;PROCD
UPD:G;RESTR
```

Output Messages
```
OP-G,READLOG
STOP-GEN
STP-GEN
UPD-G,COMMIT
UPD-G,CONT
UPD-G,ENTER
UPD-G,PROCD
UPD-G,RESTR
```

ID . . . . . UPD-G,COMMIT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has four formats.

[1] `UPD GEN COMMIT COMPLETED`

[2] `UPD GEN COMMIT STOPPED WITH ERROR CODE` *a*

[3] `UPD GEN COMMIT TRANSFERRING CONTROL TO APPLICATION`

[4] `UPD GEN COMMIT APPLICATION COMPLETION WITHIN` *b* `SECONDS`

2. REASON FOR OUTPUT

To report the result of executing a `UPD:GEN;COMMIT` input message.

3. VARIABLE FIELD DEFINITIONS

a = Error code causing the process to stop. See the System Update Error Codes Appendix, `SUPR-APP`.

b = Number of seconds for application processing.

4. ACTION TO BE TAKEN

For Formats 1,3, and 4, take no action.

For Format 2, comply with instructions given. Craft execution errors can be corrected by examining the procedures used for execution of the command. If any other errors occur, seek technical assistance.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 326.

Output Appendix
`SUPR-APP`

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
OP:G;READLOG
STOP:GEN
STP:GEN
UPD:G;BKOUT
UPD:G;COMMIT
UPD:G;CONT
UPD:G;ENTER
UPD:G;PROCD
UPD:G;RESTR
```

Output Messages

```
OP-G,READLOG
STOP-GEN
STP-GEN
UPD-G,BKOUT
UPD-G,CONT
UPD-G,ENTER
UPD-G,PROCD
UPD-G,RESTR
```

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ID . . . . . UPD-G,CONT
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `UPD GEN CONTINUE {COMPLETED | STOPPED WITH ERROR CODE` *a* `}`

[2] `UPD GEN CONTINUE NOT STARTED`
`CONFLICT WITH CURRENT SYSTEM STATUS` *b*

2. REASON FOR OUTPUT

To report the result of executing a `UPD:GEN;CONTINUE` input message.

3. VARIABLE FIELD DEFINITIONS

a = Error code causing the process to stop. See the System Update Error Codes Appendix, `SUPR-APP`.

b = Process not initiated.

4. ACTION TO BE TAKEN

Correct user execution errors by examining the procedures used for execution of the command. If any other error occurs, seek technical assistance.

5. ALARMS

None.

6. REFERENCES

OMDB Key
Format 1 has an OMDB key of 326.

Output Appendix
`SUPR-APP`

Input Messages
`UPD:G;BKOUT`
`UPD:G;COMMIT`
`UPD:G;CONT`
`UPD:G;ENTER`
`UPD:G;PROCD`
`UPD:G;RESTR`

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Output Messages

```
UPD-G,BKOUT
UPD-G,COMMIT
UPD-G,ENTER
UPD-G,PROCD
UPD-G,RESTR
```

ID . . . . . UPD-G,ENTER
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has ten formats.

[1] `UPD GEN ENTER COMPLETED`

[2] `UPD GEN ENTER STOPPED WITH ERROR CODE` *a*

[3] `UPD GEN ENTER MOUNT TAPE AND CONTINUE`

[4] `UPD GEN ENTER` *b* `BLOCKS WRITTEN`

[5] `UPD GEN ENTER MHD` *c* `SELECTED FOR NEW GENERIC`

[6] `UPD GEN ENTER CHANGING MHD` *c* `TO OFFLINE`

[7] `UPD GEN ENTER MHD` *c* `OFFLINE`

[8] `UPD GEN ENTER TRANSFERRING CONTROL TO APPLICATION`

[9] `UPD GEN ENTER APPLICATION COMPLETION WITHIN` *d* `SECONDS`

[10] `UPD GEN ENTER UPDATING PARTITION` *e* `IN MHD` *f*

2. REASON FOR OUTPUT

To report the result of executing a `UPD:GEN;ENTER` input message, and to provide status information and instructions concerning the update.

3. VARIABLE FIELD DEFINITIONS

a = Error code causing the process to stop. See the System Update Error Codes Appendix, `SUPR-APP`.

b = Number of additional blocks of data written since last output message of this type.

c = Member number of disk to be forced off-line for data entry (if off-line disk method being used).

d = Number of seconds for application processing.

e = Number of a backup partition that needs to be updated from its primary.

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f = Member number of off-line disk in which partition is being updated.

4. ACTION TO BE TAKEN

Format 1 indicates the proceed enter has completed. There is no action to be taken when this output occurs.

Format 2 indicates that enter stopped due to an error. Error codes are defined in the System Update Error Codes Appendix, SUPR-APP. Along with each error code is a description of the appropriate action to take.

Format 3 indicates to mount the appropriate tape and CONTINUE the system update procedure.

Formats 4 - 10 are informational messages and do not require any action to be taken.

5. ALARMS

None.

6. REFERENCES

OMDB Key
There is an OMDB key of 326.

Output Appendix
SUPR-APP

Input Messages
```
OP:G;READLOG
STOP:GEN
STP:GEN
UPD:G;BKOUT
UPD:G;COMMIT
UPD:G;CONT
UPD:G;ENTER
UPD:G;PROCD
UPD:G;RESTR
```

Output Messages
```
OP-G,READLOG
STOP-GEN
STP-GEN
UPD-G,BKOUT
UPD-G,COMMIT
UPD-G,CONT
UPD-G,PROCD
UPD-G,RESTR
```

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ID . . . . . UPD-G,PROCD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has six formats.

[1] `UPD GEN PROCEED COMPLETED`

[2] `UPD GEN PROCEED STOPPED WITH ERROR CODE` *a*

[3] `UPD GEN PROCEED UPON COMPLETION BOOT SYSTEM SELECTING` *b*

[4] `UPD GEN PROCEED TRANSFERRING CONTROL TO APPLICATION`

[5] `UPD GEN PROCEED APPLICATION COMPLETION WITHIN` *c* `SECONDS`

[6] `UPD GEN PROCEED NOT STARTED`
`CONFLICT WITH CURRENT SYSTEM STATUS`

2. REASON FOR OUTPUT

To report the result of executing a `UPD:GEN;PROCEED` input message and to inform the craft which boot options to use when booting the new generic.

3. VARIABLE FIELD DEFINITIONS

a = Error code causing the process to stop. See the System Update Error Codes Appendix, `SUPR-APP`.

b = Boot options:

`PRIMARY ROOT` — Select primary root on emergency action interface (EAI).
`BACKUP ROOT` — Select backup root on EAI.
`MHD {0|1}` — Force moving head disk (MHD) specified on EAI (off-line disk method only).

c = Number of seconds for application processing.

4. ACTION TO BE TAKEN

Format 1 indicates the proceed process has completed. There is no action to be taken.

Format 2 indicates that proceed stopped due to an error. Error codes are defined in the System Update Error Codes Appendix, `SUPR-APP`. Along with each error code is a description of the appropriate action to take.

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Format 3 indicates that when the proceed is completed, boot the system as directed in this message. The force for `MHD {0/1}` should be left in effect until instructions to remove it are output by `UPD-GEN,COMMIT` or `UPD-GEN,RESTORE`.

Format 4 is an informational message and does not require any action.

Format 5 is an informational message and does not require any action.

Format 6 indicates that a condition exists which will not allow the `UPD:GEN;PROCEED` process to start. Possibly `/prc/supr/proceed` does not exist or is not executable. If the file does not exist and is already executable retry the command. If the message is output again, seek technical assistance.

5. ALARMS

None.

6. REFERENCES

OMDB Key
Formats 1 - 5 have an OMDB key of 326.

Output Appendix
`SUPR-APP`

Input Messages
`OP:GEN:READLOG`
`STOP:GEN`
`STP:GEN`
`UPD:GEN;BKOUT`
`UPD:GEN;COMMIT`
`UPD:GEN;CONT`
`UPD:GEN;ENTER`
`UPD:GEN;PROCD`
`UPD:GEN;RESTR`

Output Messages
`OP-GEN,READLOG`
`STOP-GEN`
`STP-GEN`
`UPD-GEN,BKOUT`
`UPD-GEN,COMMIT`
`UPD-GEN,CONT`
`UPD-GEN,ENTER`
`UPD-GEN,RESTR`

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . UPD-G,RESTR
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has seven formats.

[1] `UPD GEN RESTORE COMPLETED`

[2] `UPD GEN RESTORE STOPPED WITH ERROR CODE` *a*

[3] `UPD GEN RESTORE TRANSFERRING CONTROL TO APPLICATION`

[4] `UPD GEN RESTORE APPLICATION COMPLETION`
`WITHIN` *b* `SECONDS`

[5] `UPD GEN RESTORE LOG WILL BE PURGED`
`IN` *b* `SECONDS, SAVE IT IF NEEDED`

[6] `UPD GEN RESTORE COMPLETION WILL BE IN` *b* `SECONDS`

[7] `UPD GEN RESTORE NOT STARTED`
`CONFLICT WITH CURRENT SYSTEM STATUS`

2. REASON FOR OUTPUT

To report the result of executing a `UPD:GEN;RESTORE` input message, and to inform operator when to remove force for boot disk (if the off-line disk method is being used).

3. VARIABLE FIELD DEFINITIONS

a = Error code causing the process to stop. See System Update Error Codes Output Appendix, `SUPR-APP`.

b = Number of seconds for application processing.

4. ACTION TO BE TAKEN

Format 1 indicates the restore process has completed. There is no action to be taken when this output occurs.

Format 2 indicates that restore stopped due to an error. Error codes are defined in the System Update Error Codes Output Appendix, `SUPR-APP`, *Output Message Manual*. Along with each error code is a description of the appropriate action to take.

Formats 3, 4, and 6 are informational messages and do not require any action to be taken.

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Format 5 indicated that the log file will be removed, and should be saved if it is needed.

Format 7 indicates that a condition exists which will not allow the `UPD:GEN;RESTORE` process to start. Possibly /prc/supr/restore does not exist or does exist and is already executable retry the command. If the message is output again, seek technical assistance.

5. ALARMS

None.

6. REFERENCES

OMDB Key
Formats 1 - 6 have an OMDB key of 326.

Output Appendix
`SUPR-APP`

Input Messages
```
OP:GEN;READLOG
STOP:GEN
STP:GEN
UPD:GEN;BKOUT
UPD:GEN;COMMIT
UPD:GEN;CONT
UPD:GEN;ENTER
UPD:GEN;PROCD
UPD:GEN;RESTR
```

Output Messages
```
OP-GEN,READLOG
STOP-GEN
STP-GEN
UPD-GEN,BKOUT
UPD-GEN,COMMIT
UPD-GEN,CONT
UPD-GEN,ENTER
UPD-GEN,PROCD
```

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . UPD-ISG-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`UPD ISG` *a* [*b* [*c*|*d*]] [*e*]

2. REASON FOR OUTPUT

To report any errors encountered in an invocation of incremental system generation (SGEN), and to report the amount of memory needed to boot from the new boot load.

3. VARIABLE FIELD DEFINITIONS

a = One of the following descriptions of any unexpected events during processing: Reason for error found at beginning of output file `/tmp/isgdump`.

`bf_fchk:` cannot open file *b*.

`bf_fchk:` file *b* is not a single extent contiguous file.

`bf_init:` cannot open output file *b*.

`bf_init:` output file *b* does not have exactly *c* blocks.

`bf_write:` insufficient space on output file to build system.

`bh_put:` write failed.

`bt_ovrwrt:` unable to open output file *b*.

`bt_ovrwrt:` unable to overwrite bootab.

`bt_ovrwrt:` unable to write to file *b*.

`bt_pr_seg:` too many segments in boot image.

`db_getdev:` invalid device type.

`db_getlevl:` invalid level index.

`db_getpth:` failed to read sgen2 record.

`db_getpth:` failed to read sgen3 record.

`db_getpth:` invalid boot constituent.

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`db_init:` failed to attach to database.

`db_init:` failed to read header record.

`db_init:` failed to read sgen1 record.

`db_nextbp:` failed to read sequence record.

`db_opnothr:` failed to open process sequence.

`db_parm:` invalid parameter type.

`db_pnum:` no available process numbers.

`db_shares:` could not open shares.

`db_shares:` failed to read record.

`isgen` completed: additional boot time data in ECD form `btparm`.

`kpcb_frsn:` exceeded maximum number of pfile segments.

`kpcb_put:` write failed.

`kpcb_seglist:` segment in *b* is marked common, but csize is zero.

`pf_cpyseg:` write failed.

`pf_csize:` invalid request.

`pf_csize:` cannot find kboot data.

`pf_csize:` cannot find kboot text.

`pf_csize:` cannot find kernel bss.

`pf_csize:` cannot find kernel data.

`pf_csize:` cannot find kernel text.

`pf_csize:` cannot find tv.

`pf_fill:` write failed.

`pf_flags:` invalid magic number.

`pf_flags:` pfile *b* has more than one share segment.

`pf_flags:` pfile*b* has share segment, but not declared as a child.

`pf_fndshdr:` seek failed.

`pf_fsize:` cannot find data of a.out.

`pf_fsize:` cannot find kernel data.

`pf_fsize:` cannot find kernel text.

`pf_fsize:` cannot find text of a.out.

`pf_fsize:` cannot find tv.

`pf_fsize:` invalid request.

`pf_fstart:` cannot find data.

`pf_fstart:` cannot find kernel data.

`pf_fstart:` cannot find kernel text.

`pf_fstart:` cannot find text.

`pf_fstart:` cannot find tv.

`pf_fstart:` invalid request.

`pf_getfile:` bad magic.

`pf_getfile:` pfile has invalid magic number.

`pf_getndx:` invalid pfile.

`pf_getndx:` invalid request.

`pf_offset:` invalid request.

`pf_open:` could not find the file *b*.

`pf_segclass:` segment *d* of process *b* has fsize !=0; csize = 0.

`pf_segclass:` segment *d* of process *b* has fsize = csize =0.

`pf_segclass:` segment *d* of process *b* is marked common but core size = 0.

`pf_sgflags:` invalid pfile request.

`pf_sgflags:` invalid request.

`sgen:` size of boot image is *e* pages.

`spcb_firstsn:` exceeded maximum number of pfile segments.

`spcb_put:` write failed.

`spcb_seglist:` access of child lowered.

`spcb_seglist:` segment in *b* is marked common, but csize is zero.

`va_putpgt:` write failed.

`va_putsgt:` write failed.

`va_resume:` out of room in kboot's address space.

`va_setseg:` segment already in use.

`pf_getfile:` file *b* must be 3bswabbed.

b = Name of file.

c = Number of blocks the file should have.

d = Segment number.

e = Number of pages.

4. ACTION TO BE TAKEN

A successful run will print a message stating the amount of memory needed to boot the system. Ensure that the system is configured with this amount.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
This message has an OMDB key 578.

ID . . . . . UPD-ISG-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`UPD ISG` *a* [*b* [*c*|*d*]] [*e*]

2. REASON FOR OUTPUT

To report any errors encountered in an invocation of incremental system generation (SGEN), and to report the amount of memory needed to boot from the new boot load.

3. VARIABLE FIELD DEFINITIONS

a = One of the following descriptions of any unexpected events during processing: Reason for error found at beginning of output file `/tmp/isgdump`.

`bf_fchk:` cannot open file *b*.

`bf_fchk:` file *b* is not a single extent contiguous file.

`bf_init:` cannot open output file *b*.

`bf_init:` output file *b* does not have exactly *c* blocks.

`bf_write:` insufficient space on output file to build system.

`bh_put:` write failed.

`bt_ovrwrt:` unable to open output file *b*.

`bt_ovrwrt:` unable to overwrite bootab.

`bt_ovrwrt:` unable to write to file *b*.

`bt_pr_seg:` too many segments in boot image.

`chksiz:` filesize disagrees with bootheader filesize.

`chksiz:` unable to stat bootfile.

`db_getdev:` invalid device type.

`db_getlevl:` invalid level index.

`db_getpth:` failed to read sgen2 record.

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`db_getpth:` failed to read sgen3 record.

`db_getpth:` invalid boot constituent.

`db_init:` failed to attach to database.

`db_init:` failed to read header record.

`db_init:` failed to read sgen1 record.

`db_nextbp:` failed to read sequence record.

`db_opnothr:` failed to open process sequence.

`db_parm:` invalid parameter type.

`db_pnum:` no available process numbers.

`db_shares:` could not open shares.

`db_shares:` failed to read record.

`isgen` completed: additional boot time data in ECD form `btparm`.

`kpcb_frsn:` exceeded maximum number of pfile segments.

`kpcb_put:` write failed.

`kpcb_seglist:` segment in *b* is marked common, but csize is zero.

`pf_cpyseg:` write failed.

`pf_csize:` invalid request.

`pf_csize:` cannot find kboot data.

`pf_csize:` cannot find kboot text.

`pf_csize:` cannot find kernel bss.

`pf_csize:` cannot find kernel data.

`pf_csize:` cannot find kernel text.

`pf_csize:` cannot find tv.

`pf_fill:` write failed.

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`pf_flags:` invalid magic number.

`pf_flags:` pfile *b* has more than one share segment.

`pf_flags:` pfile*b* has share segment, but not declared as a child.

`pf_fndshdr:` seek failed.

`pf_fsize:` cannot find data of a.out.

`pf_fsize:` cannot find kernel data.

`pf_fsize:` cannot find kernel text.

`pf_fsize:` cannot find text of a.out.

`pf_fsize:` cannot find tv.

`pf_fsize:` invalid request.

`pf_fstart:` cannot find data.

`pf_fstart:` cannot find kernel data.

`pf_fstart:` cannot find kernel text.

`pf_fstart:` cannot find text.

`pf_fstart:` cannot find tv.

`pf_fstart:` invalid request.

`pf_getfile:` bad magic.

`pf_getfile:` pfile has invalid magic number.

`pf_getndx:` invalid pfile.

`pf_getndx:` invalid request.

`pf_offset:` invalid request.

`pf_open:` could not find the file *b*.

`pf_segclass:` segment *d* of process *b* has fsize !=0; csize = 0.

`pf_segclass:` segment *d* of process *b* has fsize = csize =0.

`pf_segclass:` segment *d* of process *b* is marked common but core size = 0.

`pf_sgflags:` invalid pfile request.

`pf_sgflags:` invalid request.

`sgen:` size of boot image is *e* pages.

`spcb_firstsn:` exceeded maximum number of pfile segments.

`spcb_put:` write failed.

`spcb_seglist:` access of child lowered.

`spcb_seglist:` segment in *b* is marked common, but csize is zero.

`va_putpgt:` write failed.

`va_putsgt:` write failed.

`va_resume:` out of room in kboot's address space.

`va_setseg:` segment already in use.

`pf_getfile:` file *b* must be 3bswabbed.

b = Name of file.

c = Number of blocks the file should have.

d = Segment number.

e = Number of pages.

4. ACTION TO BE TAKEN

A successful run will print a message stating the amount of memory needed to boot the system. Ensure that the system is configured with this amount.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key
This message has an OMDB key 578.

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . UPD-OMDB-A
GENERIC . . . . . UNIX RTR R1.5, R6.4, and R21.3
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has seven formats.

[1] `UPD OMDB COMPLETED FOR THE FOLLOWING KEYS:`
a

[2] `UPD OMDB NO DATABASE ENTRY FOUND FOR THE FOLLOWING KEYS:`
b

[3] `UPD OMDB FAILED`
`UNABLE TO ACCESS /cft/spl/omdb`

[4] `UPD OMDB COMPLETED`

[5] `UPD OMDB CANNOT OPEN OR CREATE LOGFILE`
`UPDATE NOT LOGGED`

[6] `UPD OMDB ABORTED`
`UNABLE TO SEND REQUEST TO CSOP`

[7] `UPD OMDB NOT STARTED`
`CONFLICT WITH CURRENT SYSTEM STATUS` *c*

2. REASON FOR OUTPUT

To report the result of executing a `UPD:OMDB` input message.

3. VARIABLE FIELD DEFINITIONS

a = List of message keys for which the `UPD:OMDB` completed successfully.

b = List of message keys for which the `UPD:OMDB` failed.

c = Further explanation of error: `SYNTAX ERROR, INVALID KEY, TOO MANY KEYS, INVALID MSGCLS, INVALID ALARM`.

4. ACTION TO BE TAKEN

For Format 2, verify that the key(s) was entered correctly.

For Format 3, determine if the disk is available. If the disk is available, verify the status of the OMDB disk file by using the `OP:STATUS;LISTDIR` command for `/cft/spl/omdb`.

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Format 5 indicates a possible file system problem, such as lack of available disk space. The update being processed is not saved in the OMDB logfile (`/cft/spl/OMDB_LOG`).

For Format 6, verify that the coordinator of spooler output process (CSOP) is running.

For Format 7, verify that the input message was entered correctly.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 4.
Format 2 has an OMDB key of 3.
Format 4 has an OMDB key of 5.
Format 5 has an OMDB key of 9.
Format 6 has an OMDB key of 118.

Input Messages

```
ACTV:OMDB
APPLY:OMDB
OP:OMDB
OP:ST;LSTDIR
UPD:OMDB
```

ID . . . . . UPD-OMDB-B
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has seven formats.

[1]
```
UPD OMDB COMPLETED FOR THE FOLLOWING KEYS:
  a
```

[2]
```
UPD OMDB NO DATABASE ENTRY FOUND FOR
 THE FOLLOWING KEYS:
  b
```

[3]
```
UPD OMDB FAILED
UNABLE TO ACCESS /cft/spl/omdb
```

[4]
```
UPD OMDB COMPLETED
```

[5]
```
UPD OMDB CANNOT OPEN OR CREATE LOGFILE
UPDATE NOT LOGGED
```

[6]
```
UPD OMDB ABORTED
UNABLE TO SEND REQUEST TO CSOP
```

[7]
```
UPD OMDB NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS c
```

2. REASON FOR OUTPUT

To report the result of executing a UPD:OMDB input message.

3. VARIABLE FIELD DEFINITIONS

a = List of message keys for which the UPD:OMDB completed successfully.

b = List of message keys for which the UPD:OMDB failed.

c = Further explanation of error: SYNTAX ERROR, INVALID KEY, TOO MANY KEYS, INVALID MSGCLS, INVALID ALARM.

4. ACTION TO BE TAKEN

For format 2, verify that the key(s) was entered correctly.

For format 3, determine if the disk is available. If the disk is available, verify the status of the OMDB disk file by using the OP:STATUS;LISTDIR command for /cft/spl/omdb.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 5 indicates a possible file system problem, such as lack of available disk space. The update being processed is not saved in the OMDB logfile (`/cft/spl/OMDB_LOG`).

For format 6, verify that the coordinator of spooler output process (CSOP) is running.

For format 7, verify that the input message was entered correctly.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 4.
Format 2 has an OMDB key of 3.
Format 4 has an OMDB key of 5.
Format 5 has an OMDB key of 9.
Format 6 has an OMDB key of 118.

Input Messages

```
ACTV:OMDB
APPLY:OMDB
OP:OMDB
OP:ST;LSTDIR
UPD:OMDB
```

ID . . . . . UPD-OMIT
GENERIC . . . . . UNIX RTR R1.5, R6.4 and R21.3
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `UPD OMIT REPT`
a

[2] `UPD OMIT` *b*

2. REASON FOR OUTPUT

To report the result of executing a `UPD:OMIT` command.

Format 1 is output to give information about the progress of omitting an update, or to report an error encountered while processing the omission.

Format 2 is output upon termination of the process.

3. VARIABLE FIELD DEFINITIONS

a = Information about the progress of omitting an update, or report of an error encountered while processing the omission. Error messages may be one of the following six categories.

`usage` — reports an error using field update
`internal` — reports an error found by the field update code
`system` — reports a system error that occurred
`COFF` — reports an error in the internal format of a file
`database` — reports an error in the database
`filesys` — reports an error in the file system

See the Field Update Error Codes output Appendix, `FUEC-APP` for explanations of error codes which may appear in error messages.

b = Termination mode of the input message `UPD:OMIT`. The mode will be either `COMPLETED` for successful completion, or `ABORTED` for termination with errors.

4. ACTION TO BE TAKEN

No action needed for informational reports. If a command aborts, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Output Appendix
`FUEC-APP`

Input Message
`UPD:OMIT`

ID . . . . . UPD-PERM
GENERIC . . . . . UNIX RTR R1.5, R6.4 and R21.3
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `UPD PERM REPT`
a

[2] `UPD PERM` *b*

2. REASON FOR OUTPUT

To report the result of executing a `UPD:PERM` command.

Format 1 is output to give information about the progress of making an update permanent, or to report an error encountered while making the update permanent.

Format 2 is output upon termination of the process.

3. VARIABLE FIELD DEFINITIONS

a = Information about the progress of making an update permanent, or report of an error encountered while making the update permanent. Error messages may be one of the following six categories.

`usage` — reports an error using field update
`internal` — reports an error found by the field update code
`system` — reports a system error that occurred
`COFF` — reports an error in the internal format of a file
`database` — reports an error in the database
`filesys` — reports an error in the file system

See the Field Update Error Codes output Appendix `FUEC-APP` for explanations of error codes which may appear in error messages.

b = Termination mode of the input message `UPD:PERM`. The mode will be either `COMPLETED` for successful completion, or `ABORTED` for termination with errors.

4. ACTION TO BE TAKEN

No action needed for informational reports. If a command aborts, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Output Appendix
FUEC-APP

Input Message
UPD:PERM

ID . . . . . UPD-PURGE
GENERIC . . . . . UNIX RTR R1.5, R6.4 and R21.3
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `UPD PURGE REPT`
a

[2] `UPD PURGE` *b*

2. REASON FOR OUTPUT

To report the result of executing a `UPD:PURGE` command.

Format 1 is output to give information about the progress of purging an update, or to report an error encountered while purging the update.

Format 2 is output upon termination of the process.

3. VARIABLE FIELD DEFINITIONS

a = Information about the progress of purging an update, or report of an error encountered while purging the update. Error messages may be one of the following six categories.

`usage` — reports an error using field update
`internal` — reports an error found by the field update code
`system` — reports a system error that occurred
`COFF` — reports an error in the internal format of a file
`database` — reports an error in the database
`filesys` — reports an error in the file system

See the Field Update Error Codes output Appendix `FUEC-APP` for explanations of error codes which may appear in error messages.

b = Termination mode of the input message `UPD:PURGE`. The mode will be either `COMPLETED` for successful completion, or `ABORTED` for termination with errors.

4. ACTION TO BE TAKEN

No action needed for informational reports. If a command aborts, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Output Appendix
FUEC-APP

Input Message
UPD:PURGE

ID . . . . . UPD-RECLAIM
GENERIC . . . . . UNIX RTR R1.5, R6.4 and R21.3
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `UPD RECLAIM REPT`
a

[2] `UPD RECLAIM` *b*

2. REASON FOR OUTPUT

To report the result of executing a `UPD:RECLAIM` command.

Format 1 is output to give information about the progress of reclaiming an update, or to report an error encountered while reclaiming the update.

Format 2 is output upon termination of the process.

3. VARIABLE FIELD DEFINITIONS

a = Information about the progress of reclaiming an update, or report an error encountered while reclaiming the update. Error messages may be one of the following six categories.

`usage` — reports an error using field update
`internal` — reports an error found by the field update code
`system` — reports a system error that occurred
`COFF` — reports an error in the internal format of a file
`database` — reports an error in the database
`filesys` — reports an error in the file system

See the Field Update Error Codes output Appendix `FUEC-APP` for explanations of error codes which may appear in error messages.

b = Termination mode of the input message `UPD:RECLAIM`. The mode will be either `COMPLETED` for successful completion, or `ABORTED` for termination with errors.

4. ACTION TO BE TAKEN

No action needed for informational reports. If a command aborts, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Input Message
`UPD:RECLAIM`

Output Appendix
`FUEC-APP`

ID . . . . . UPD-REPT-A
GENERIC . . . . . UNIX RTR R1.5, R6.4 and R21.3
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `UPD` *a* `REPT`
b

[2] `UPD` *a c*

2. REASON FOR OUTPUT

To report the result of executing a `UPD` command.

3. VARIABLE FIELD DEFINITIONS

a = The identification field of the field update input message producing this output. (Identification fields are APPLY, BLDBOOT, BKOUT, CLR, DISPLAY, FTRC, OMIT, PERM, PURGE, RECLAIM, RESET, VFY.)

b = Messages from the field update processes. These messages may contain information about the progress of an update or report an error encountered while processing the update. Error messages fall into six categories:

`Coff error` — reports an error in the internal format of a file.

`Database error` — reports an error in the database.

`Filesys error` — reports an error in the file system.

`Internal error` — reports an error found by the field update code.

`System error` — reports a system error that occurred.

`Usage error` — reports an error using field update.

c = Termination mode of the input message. The mode will be either `COMPLETED`, for successful completion or `ABORTED`, for termination with errors.

4. ACTION TO BE TAKEN

Take no action for informational reports. If a command aborts, seek technical assistance.

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5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has an OMDB key of 327.
Format 2 has an OMDB key of 328.

Input Messages

```
UPD:APPLY;BYTER
UPD:APPLY;FILER
UPD:APPLY;FUNCR
UPD:BKOUT
UPD:BLDBOOT
UPD:BYTER
UPD:CLR
UPD:DISPLAY
UPD:FILER
UPD:FTRC
UPD:FUNCR
UPD:OMIT
UPD:PERM
UPD:PURGE
UPD:RECLAIM
UPD:RESET
UPD:VFY
```

ID . . . . . UPD:REPT-B
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

```
UPD REPT  a
      b
      [c]
      [PATHNAME: f]
      [VALUES g]
      [TAG=d ERRNO=e]
```

2. REASON FOR OUTPUT

To specify errors or events that occurred as a result of performing a software update activity.

3. VARIABLE FIELD DEFINITIONS

a = category of the report message. Valid values are:

`INFORMATION` = Informational message associated with some software update activity.

`SYSTEM ERROR` = System error encountered during some software update activity.

`USER ERROR` = User error encountered attempting to execute a software update command. Most often the result of bad input to the command.

`WARNING` = A non-fatal problem was encountered while executing a software update activity that did not cause the command to abort, but may require attention.

b = A brief text phrase describing an error or providing information associated with a software update activity.

c = The SU name associated with the report message.

d = A tag value which indicates the location where the error message originated from. This value is used by LUCENT personnel for troubleshooting purposes.

e = A unix system error number.

f = Pathnames of the files associated with this report 1 per line.

g Values associated with the text message in *a* 4 per line. These provide the data which caused the text message to be printed.

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4. ACTION TO BE TAKEN

For INFORMATION category messages, no action is necessary. For the SYSTEM ERROR, USER ERROR, and WARNING categories, the specific action required depends on the b field in the message. Most of these reports require technical assistance; however, some can be corrected and are listed below alphabetically. If these actions do not succeed, then seek technical assistance.

`FILE MANAGER CALL FAILED DUE TO BUSY FILE` = This indicates that a file manager operation on the pathname(s) given in field *f* cannot be performed because a process or user has one of those files open. If this problem is corrected a retry of the failed command will usually succeed.

`MULTIPLE INVOCATIONS OF SUucm NOT ALLOWED` = There is already a SU command running which must be completed before another command is given. Retry the command at a later time.

`NOT ENOUGH FREE SPACE TO INSTALL FILE` = Check the filesystem referred to by *f* for un-necessary files which may be using up all of the space.

`PREVIOUS SU HAS TEMPORARY UPDATE ON THIS FILE` = The previous SU *c* must be made official before the current SU can be applied because they have overlapping updates.

`THIS IS NOT THE LATEST SU THAT CAN BE BACKED OUT` = Use the display commands on 1950 MCC page to determine which SU needs to be backed out first.

`UPDATE ITEM IS IN OFFICIAL STATUS` = The SU in *c* has at least one update made official. That means that a SU must be backed out using the back out last official (BOLO) SU mechanism on the 1950 MCC page.

5. ALARMS

None

6. REFERENCES

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . UPD-RESET
GENERIC . . . . . UNIX RTR R1.5, R6.4 and R21.3
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `UPD RESET REPT`
a

[2] `UPD RESET` *b*

2. REASON FOR OUTPUT

To report the result of executing a `UPD:RESET` command.

Format 1 is output to give information about the progress of resetting an update, or to report an error encountered while resetting the update.

Format 2 is output upon termination of the process.

3. VARIABLE FIELD DEFINITIONS

a = Information about the progress of resetting an update, or report an error encountered while resetting the update. Error messages may be one of the following six categories.

`usage` — reports an error using field update
`internal` — reports an error found by the field update code
`system` — reports a system error that occurred
`COFF` — reports an error in the internal format of a file
`database` — reports an error in the database
`filesys` — reports an error in the file system

See the Field Update Error Codes output Appendix `FUEC-APP` for explanations of error codes which may appear in error messages.

b = Termination mode of the input message `UPD:RESET`. The mode will be either `COMPLETED` for successful completion, or `ABORTED` for termination with errors.

4. ACTION TO BE TAKEN

No action needed for informational reports. If a command aborts, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Input Message
UPD:RESET

Output Appendix
FUEC-APP

ID . . . . . UPD-UPNM
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has three formats.

[1] `UPD UPNM - AUTO BACK-OUT DELAY STARTED`

[2] `UPD UPNM DUFR WARNING: -2: UPDATE REQUEST ON NAMED DATA SEGMENT`

[3] `UPD UPNM DUFR WARNING: -4: TARGET PROCESS SEGMENT NAMES CLEARED`

2. REASON FOR OUTPUT

To specify an action or provide information outside of the normal field update reporting scheme (through UPD).

Format 1 indicates that the in-core copy of the target process has been overwritten, and the automatic backout delay has started (default is five minutes). Should a phase 1 occur before the delay period completes, the update will be backed out, leaving the update in a pending temp state. A continue may be requested.

Format 2 is provided when a killable kernel processes (KPUPDATE) feature is the target process and a named data segment has been encountered (the name is included in the SDE for the segment, located in the kernel's address space). Normally, any (text) segment DUFR attaches to will have its name cleared to prevent inconsistencies should the target process die. For named data segments, DUFR will attach to the segment and see that it is overwritten, but the name will NOT be cleared.

Format 3 is given to inform the user that during an update on a KPUPDATE type process, one or more (text) segment names were cleared.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Format 1 tells the user to begin any sanity testing before the update is made temporary, in case sanity degrades to the point where a backout cannot be made manually.

Format 2 informs the user of the named data segments, as there now is added risk of data inconsistencies if the target process dies and is recreated during update.

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For Format 3, the user should be aware of the situation in case the target process' segment name is important to other application programming. Otherwise, the warning may be ignored.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

Input Messages

```
UPD:APPLY;BYTER
UPD:APPLY;FUNCR
UPD:RECLAIM
```

ID . . . . . UPD:VERSION
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output

1. FORMAT

```
UPD VERSION {APPLY|BKOUT} [MISMATCH]

    PARTITION       VERSION         BWM
    a               b               c
    .               .               .
    .               .               .
    .               .               .
```

2. REASON FOR OUTPUT

To respond to the input message UPD:VERSION.

3. VARIABLE FIELD DEFINITIONS

APPLY = The input message used the APPLY keyword.

BKOUT = The input message used the BKOUT keyword.

MISMATCH = The applied or backed out generic text version and/or software update level does not logically follow from the current generic text versions and/or software update levels.

a = Partition name. The pseudo-partition name APPLY or BKOUT refers to the generic text string specified in the UPD:VERSION input command. The pseudo-partition ECD refers to the 'systype' and 'genid' items from the 'eaiopt' form in the equipment configuration database.

b = Generic text version of this partition.

c = Software update level of this partition. The ECD partition does not have a software update level.

4. ACTION TO BE TAKEN

If a mismatch was indicated, check that the generic text specified on the last UPD:VERSION input message was correct. If incorrect, re-enter with correct information. If it was correct, then check and correct, if need be, the items 'systype' and 'genid' on the 'eaiopt' form using ECD recent change. The key is 'option_name: eaiop0'.

5. ALARMS

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

Input Message(s):
OP:VERSION
UPD:VERSION

Output Message(s):
OP:VERSION

ID . . . . . UPD-VFY
GENERIC . . . . . UNIX RTR R1.5, R6.4 and R21.3
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has two formats.

[1] `UPD VFY REPT`
a

[2] `UPD VFY` *b*

2. REASON FOR OUTPUT

To report the result of executing a `UPD:VFY` command.

Format 1 is output to give information about the progress of verifying an update, or to report an error encountered while verifying the update.

Format 2 is output upon termination of the process.

3. VARIABLE FIELD DEFINITIONS

a = Information about the progress of verifying an update, or report of an error encountered while verifying the update. Error messages may be one of the following six categories.

`usage` — reports an error using field update
`internal` — reports an error found by the field update code
`system` — reports a system error that occurred
`COFF` — reports an error in the internal format of a file
`database` — reports an error in the database
`filesys` — reports an error in the file system

See the Field Update Error Codes output Appendix `FUEC-APP` for explanations of error codes which may appear in error messages.

b = Termination mode of the input message `UPD:VFY`. The mode will be either `COMPLETED` for successful completion, or `ABORTED` for termination with errors.

4. ACTION TO BE TAKEN

No action needed for informational reports. If a command aborts, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. ALARMS

None. This automatically-generated report is for information only.

6. REFERENCES

Output Appendix
FUEC-APP

Input Message
UPD:VFY

ID . . . . . UPD:VFYCON
GENERIC . . . . . UNIX RTR R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MTCE

1. FORMAT

```
UPD VFYCON - TABLE OF a INCONSISTENCIES
        SUNAME          UPD     PRODUCT  TYPE
        ========================================================
           b      c    d   e

UPD VFYCON - TABLE f
```

2. REASON FOR OUTPUT

To report all software update inconsistencies associated with temporary updates in the system, in response to a `UPD:VFYCON` input message or poke that performs SU inconsistency checks.

3. VARIABLE FIELD DEFINITIONS

a = TARGET processor that consistency check was run for. If none listed then all processors were checked.

b = Software update name associated with the inconsistency.

c = Update number in the SU database.

d = The product name associated with the inconsistency.

e = The type of inconsistency. Valid values are:

`UPDATE NOT INSTALLED IN PROCESSOR` = FUNCR or BYTER type update is not installed in processor memory meaning it is not activated.

`UPDATE NOT IN TEMPORARY STATE` = Update has lost filesystem temp meaning it is not activated.

`MISSING APPLY UFILE` = FUNCR or BYTER type update is missing a working file needed to install the update.

`MISSING APPLY PFILE` = FUNCR or BYTER type update is missing a working file needed to install the update.

`MISSING MIRROR FILE` = An always contiguous product is missing its mirror disk image which is required to software update the product.

`MISSING TEMPORARY FILE` = FILER update is missing a working file needed to install the update.

`MISSING OFFICIAL PRODUCT FILE` = This official version of a product being updated is missing. Technical assistance is required to clear this inconsistency.

`MISSING BOLO SAVEFILE` = Working files necessary to perform back out of last official SU are missing. Technical assistance is required to clear this inconsistency.

SEE PROPRIETARY NOTICE ON COVER PAGE

f = COMPLETED if only one inconsistency table or CONTINUES if there are additional tables to follow.

4. ACTION TO BE TAKEN

The normal recovery actions are to roll forward or roll backward the current temporary updates using a UPD:RCVRY input message, unless the inconsistency type above indicates that technical assistance is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):
UPD:RCVRY
UPD:VFYCON

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

ID . . . . . VFY-FILE-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has 28 formats.

[1] `VFY FILE STARTED`

[2]
```
VFY FILE CRC CALCULATION REPORT
FILE NAME                                SIZE CRC
a                b   c
```

[3]
```
VFY FILE IN PROGRESS
d FILES VERIFIED
```

[4] `VFY FILE COMPLETED`

[5]
```
VFY FILE COMPLETED
d FILES VERIFIED
```

[6] `VFY FILE STOPPED`

[7]
```
VFY FILE STOPPED - MOUNT OFF-LINE PARTITION FAILURE
MOP ERROR = e
```

[8]
```
VFY FILE STOPPED
SPECIFIED PARTITION IS NOT A FILE SYSTEM
```

[9] `VFY FILE BOOTIMAGE NOT UP TO DATE: a`

[10] `VFY FILE CANNOT CALCULATE CRC FOR a`

[11] `VFY FILE CANNOT ACCESS SPECIAL DEVICE FILE FOR a`

[12] `VFY FILE CANNOT EXECUTE a`

[13] `VFY FILE CANNOT MOUNT a`

[14] `VFY FILE CANNOT REDIRECT MOP'S STDERR`

[15] `VFY FILE CREATING FILE /.crcvalues`

[16] `VFY FILE STOPPED - DATABASE ACCESS ERROR`

[17] `VFY FILE STOPPED - CANNOT ATTACH TO SG DATABASE`

SEE PROPRIETARY NOTICE ON COVER PAGE

[18] VFY FILE CANNOT FIND STORED CRC VALUES FOR *a*

[19] VFY FILE CANNOT OPEN *a*

[20] VFY FILE SPECIFICATION FILE ERROR IN LINE *f*

[21] VFY FILE STOPPED - CANNOT OPEN SPECFILE *a*

[22] VFY FILE FLDUPD IN PROGRESS FOR FILE *a*

[23] VFY FILE CRC UPDATE FAILED FOR *a*

[24] VFY FILE CANNOT UNMOUNT THE OFF-LINE FILE SYSTEM

[25] VFY FILE UGDNNM COMMAND FAILED FOR MHD *g*

[26] VFY FILE PATH NAME TOO LONG *a*

[27] VFY FILE VERIFICATION FAILURE ON FILE *a*
STORED CRC VALUE = *h* CALCULATED CRC VALUE = *i*

[28] VFY FILE STOPPED - MOUNT OFF-LINE PARTITION FAILURE
CANNOT START A MOP BECAUSE ONE IS ALREADY RUNNING

2. REASON FOR OUTPUT

Formats 1 through 5 are printed to inform the user of the message's status.

Formats 6 through 28 are printed to inform the user of various problems which the VFY:FILE command has encountered.

3. VARIABLE FIELD DEFINITIONS

a = Name of the file for which the message is printed.

b = The size of the essential file (mod 2).

c = The calculated cyclic redundancy check (CRC) value for the essential file. For files which contain their own CRC information, this value should match the size of the file.

d = The number of files verified. This count includes files that failed verification.

e = The error message reported by /usr/bin/mop.

f = The line number in the specfile that contains the formatting error.

g = The off-line disk number specified as the argument to the DN keyword on the VFY:FILE command line.

h = The stored CRC value for the current file. If the CRC information is stored in /.crcvalues, this field contains both the size of file and the CRC.

SEE PROPRIETARY NOTICE ON COVER PAGE

i = The calculated CRC value for the current file. If the stored CRC information for this file is kept in `/.crcvalues`, this field contains both the calculated size of the file and the CRC.

4. ACTION TO BE TAKEN

If Formats 1 through 5 are printed, no action is required.

Format 6 indicates that `VFY:FILE` has terminated.

If Format 7 is printed, the mount off-line partition (MOP) process has failed. Examine the mop error message and take appropriate action.

If Format 8 is printed, the user has selected a database partition which does not represent a file system. Find the correct partition number and reenter the command.

If Format 9 is printed, one or more of the boot files is newer than the boot image identified in the message. Use `VFY:FILE` to verify the correctness of the boot files, and regenerate the out-of-date boot image.

Format 10 is generally printed because the user is attempting to use the GEN option on a file which is not executable and trying to store the CRC internally. These files must have their CRC information stored in `/.crcvalues`. If this is not the case, seek technical assistance.

If Formats 11, 13, 14, 16, 17, 23, or 27 are printed, seek technical assistance.

Format 12 indicates that a file is missing or does not have execute permission.

Format 15 is a warning message which may be ignored if CRC information is being generated for the first time. If this is not the case, seek technical assistance.

Format 18 indicates that `VFY:FILE` cannot find CRC information which is supposed to be in `/.crcvalues`. If the CRC information was present and has been lost, seek technical assistance.

If Format 19 is printed, `VFY:FILE` cannot open the file. This is usually an input error. If this is not the case, seek technical assistance.

Formats 20 and 21 indicate problems with specification file supplied to the FLIST parameter. Verify the correctness of the input command and the contents of the specification file.

Format 22 indicates that a field update is in progress for the current file. `VFY:FILE` will not run the CRC algorithm against this file until the update is made permanent.

If Format 24 is printed, mop has been terminated unexpectedly and has left the off-line partition mounted. `VFY:FILE` has attempted to unmount the file system unsuccessfully. Use **`mop -u`** to unmount the file system.

If Format 25 is printed, `VFY:FILE` is unable to verify `/dev/boot`, `/dev/lboot`, and `/dev/vtoc` from the off-line disk. Seek technical assistance.

Format 26 is printed when the path name of the file to be verified is too long for searching `/.crcvalues`. Although the maximum allowed length for the arguments to either of the FN or OLMP options is 63 characters, their combined length must not exceed 63 characters.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 28 indicates that `VFY:FILE` was unable to mount an off-line partition (using the mop command) to verify a file because a mop process was already active at the time. Try again later.

5. ALARMS

None. This automatically-generated report is for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 2 has an OMDB key of 551.
Format 27 has OMDB keys of 559 and 655.

Input Message
`VFY:FILE`

ID . . . . . VFY-FILE-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has 32 formats.

[1] `VFY FILE STARTED`

[2]
```
VFY FILE CRC CALCULATION REPORT
FILE NAME                                SIZE CRC
a                b   c
```

[3]
```
VFY FILE IN PROGRESS
d FILES VERIFIED   k ERRORS
```

[4] `VFY FILE COMPLETED`

[5]
```
VFY FILE COMPLETED
d FILES VERIFIED   k ERRORS
```

[6] `VFY FILE STOPPED`

[7]
```
VFY FILE STOPPED - MOUNT OFF-LINE PARTITION FAILURE
MOP ERROR = e
```

[8]
```
VFY FILE STOPPED
SPECIFIED PARTITION IS NOT A FILE SYSTEM
```

[9] `VFY FILE BOOTIMAGE NOT UP TO DATE: a`

[10] `VFY FILE CANNOT CALCULATE CRC FOR a`

[11] `VFY FILE CANNOT ACCESS SPECIAL DEVICE FILE FOR a`

[12] `VFY FILE CANNOT EXECUTE a`

[13] `VFY FILE CANNOT MOUNT a`

[14] `VFY FILE CANNOT REDIRECT MOP'S STDERR`

[15] `VFY FILE CREATING FILE /.crcvalues`

[16] `VFY FILE STOPPED - DATABASE ACCESS ERROR`

[17] `VFY FILE STOPPED - CANNOT ATTACH TO SG DATABASE`

SEE PROPRIETARY NOTICE ON COVER PAGE

[18] VFY FILE CANNOT FIND STORED CRC VALUES FOR *a*

[19] VFY FILE CANNOT OPEN *a*

[20] VFY FILE SPECIFICATION FILE ERROR IN LINE *f*

[21] VFY FILE STOPPED - CANNOT OPEN SPECFILE *a*

[22] VFY FILE FLDUPD IN PROGRESS FOR FILE *a*

[23] VFY FILE CRC UPDATE FAILED FOR *a*

[24] VFY FILE CANNOT UNMOUNT THE OFF-LINE FILE SYSTEM

[25] VFY FILE UGDNNM COMMAND FAILED FOR MHD *g*

[26] VFY FILE PATH NAME TOO LONG *a*

[27] VFY FILE VERIFICATION FAILURE ON FILE *a*
STORED CRC VALUE = *h* CALCULATED CRC VALUE = *i*

[28] VFY FILE CANNOT ACCESS *a*

[29] VFY FILE VERIFICATION FAILURE ON FILE *a*
FILE TYPE CHECK FAILED *j* EXPECTED

[30] VFY FILE VERIFICATION FAILURE ON FILE *a*
SPECIFIED FILE IS NOT EXECUTABLE

[31] VFY FILE VERIFICATION FAILURE ON FILE *a*
SPECIFIED FILE HAS ZERO LENGTH

[32] VFY FILE STOPPED - MOUNT OFF-LINE PARTITION FAILURE
CANNOT START A MOP BECAUSE ONE IS ALREADY RUNNING

2. REASON FOR OUTPUT

Formats 1 through 5 are printed to inform the user of the message's status.

Formats 6 through 32 are printed to inform the user of various problems which the VFY:FILE command has encountered.

3. VARIABLE FIELD DEFINITIONS

a = Name of the file for which the message is printed.

b = The size of the essential file (mod 2).

c = The calculated cyclic redundancy check (CRC) value for the essential file. For files which contain their own CRC information, this value should match the size of the file.

SEE PROPRIETARY NOTICE ON COVER PAGE

d = The number of files verified. This count includes files that failed verification.

e = The error message reported by `/usr/bin/mop`.

f = The line number in the specfile that contains the formatting error.

g = The off-line disk number specified as the argument to the DN keyword on the `VFY:FILE` command line.

h = The stored CRC value for the current file. If the CRC information is stored in `/.crcvalues`, this field contains both the size of file and the CRC.

i = The calculated CRC value for the current file. If the stored CRC information for this file is kept in `/.crcvalues`, this field contains both the calculated size of the file and the CRC.

j = The requested file type against which the specified file was checked.

k = The number of errors encountered during processing.

4. ACTION TO BE TAKEN

If the error count for Format 3 or 5 is non-zero, examine the ROP output for other message formats to determine the cause of the errors. Otherwise, no user action is required for Formats 1 through 5.

Format 6 indicates that `VFY:FILE` has terminated.

If Format 7 is printed, the mount off-line partition (MOP) process has failed. Examine the MOP error message and take appropriate action.

If Format 8 is printed, the user has selected a database partition which does not represent a file system. Find the correct partition number and reenter the command.

If Format 9 is printed, one or more of the boot files is newer than the boot image identified in the message. Use `VFY:FILE` to verify the correctness of the boot files, and regenerate the out-of-date boot image.

Format 10 is generally printed because the user is attempting to use the GEN option on a file which is not executable and trying to store the CRC internally. These files must have their CRC information stored in `/.crcvalues`. If this is not the case, seek technical assistance.

If Formats 11, 13, 14, 16, 17, 23, 27, or 31 are printed, seek technical assistance.

Format 12 indicates that a file is missing or does not have execute permission.

Format 15 is a warning message which may be ignored if CRC information is being generated for the first time. If this is not the case, seek technical assistance.

Format 18 indicates that `VFY:FILE` cannot find CRC information which is supposed to be in `/.crcvalues`. If the CRC information was present and has been lost, seek technical assistance.

If Format 19 is printed, `VFY:FILE` cannot open the file. This is usually an input error. If

this is not the case, seek technical assistance.

Formats 20 and 21 indicate problems with specification file supplied to the FLIST parameter. Verify the correctness of the input command and the contents of the specification file.

Format 22 indicates that a field update is in progress for the current file. `VFY:FILE` will not run the CRC algorithm against this file until the update is made permanent.

If Format 24 is printed, mop has been terminated unexpectedly and has left the off-line partition mounted. `VFY:FILE` has attempted to unmount the file system unsuccessfully. Use **`mop -u`** to unmount the file system.

If Format 25 is printed, `VFY:FILE` is unable to verify `/dev/boot`, `/dev/lboot`, and `/dev/vtoc` from the off-line disk. Seek technical assistance.

Format 26 is printed when the path name of the file to be verified is too long for searching `/.crcvalues`. Although the maximum allowed length for the arguments to either of the FN or OLMP options is 63 characters, their combined length must not exceed 63 characters.

Format 28 indicates that `VFY:FILE` cannot get status of the file. This is usually an input error. If this is not the case, seek technical assistance.

Format 29 indicates that the specified file's actual file type is something other than the expected file type. Use the `OP:STATUS;LISTDIR` command to examine the existing file type. If the specified file's existing file type does not match the expected file type, seek technical assistance. Otherwise, verify the correctness of the input message.

Format 30 indicates that execute permission is not set for owner. Use the `ALW:FILESYS;ACCESS` command to set the appropriate bit.

Format 32 indicates that `VFY:FILE` was unable to mount an off-line partition, using the mop command, to verify a file because a mop process was already active at the time. Try again later.

5. ALARMS

This alarm may be a manually-requested report, or an automatically-generated report for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Formats 1, 4, 6, 9 through 25, and 28 have an OMDB key of 549.
Format 2 has an OMDB key of 551.
Formats 3, 5, 7, 8, 26, and 32 have an OMDB key of 550.
Format 27 has an OMDB key of 559.
Formats 29 and 30 have an OMDB key of 655.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

```
ALW:F;ACCESS
OP:ST;LSTDIR
VFY:FILE
```

Practice 254-341-230 *Craft Interface Software Subsystem Description Lucent Technologies 3B20D Computer*

ID . . . . . VFY-FILE-C
GENERIC . . . . . UNIX RTR R21.3, 21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has 37 formats.

[1] `VFY FILE STARTED`

[2]
```
VFY FILE CRC CALCULATION REPORT
FILE NAME                                SIZE CRC
a                b   c
```

[3]
```
VFY FILE IN PROGRESS
d FILES VERIFIED
```

[4] `VFY FILE COMPLETED`

[5]
```
VFY FILE COMPLETED
d FILES VERIFIED
e ERRORS
```

[6] `VFY FILE STOPPED`

[7]
```
VFY FILE STOPPED - MOUNT OFF-LINE PARTITION FAILURE
MOP ERROR = f
```

[8]
```
VFY FILE STOPPED
SPECIFIED PARTITION IS NOT A FILE SYSTEM
```

[9] `VFY FILE CANNOT CALCULATE CRC FOR a`

[10] `VFY FILE CANNOT ACCESS SPECIAL DEVICE FILE FOR a`

[11] `VFY FILE CANNOT EXECUTE a`

[12] `VFY FILE CANNOT MOUNT a`

[13] `VFY FILE CANNOT REDIRECT MOP'S STDERR`

[14] `VFY FILE CREATING FILE g`

[15] `VFY FILE STOPPED - DATABASE ACCESS ERROR`

[16] `VFY FILE STOPPED - CANNOT ATTACH TO SG DATABASE`

SEE PROPRIETARY NOTICE ON COVER PAGE

[17] VFY FILE CANNOT FIND STORED CRC VALUES FOR *a*

[18] VFY FILE CANNOT OPEN *a*

[19] VFY FILE SPECIFICATION FILE ERROR IN LINE *h*

[20] VFY FILE STOPPED - CANNOT OPEN SPECFILE *a*

[21] VFY FILE FLDUPD IN PROGRESS FOR FILE *a*

[22] VFY FILE CRC UPDATE FAILED FOR *a*

[23] VFY FILE CANNOT UNMOUNT THE OFF-LINE FILE SYSTEM

[24] VFY FILE UDGNNM COMMAND FAILED FOR MHD *i*

[25] VFY FILE PATH NAME TOO LONG
a

[26] VFY FILE VERIFICATION FAILURE ON FILE *a*
STORED CRC VALUE = *j* CALCULATED CRC VALUE = *k*

[27] VFY FILE CANNOT ACCESS *a*

[28] VFY FILE VERIFICATION FAILURE ON FILE *a*
FILE TYPE CHECK FAILED *l* EXPECTED

[29] VFY FILE VERIFICATION FAILURE ON FILE *a*
SPECIFIED FILE IS NOT EXECUTABLE

[30] VFY FILE VERIFICATION FAILURE ON FILE *a*
SPECIFIED FILE HAS ZERO LENGTH

[31] VFY FILE CANNOT OPEN PIPE TO *a*

[32] VFY FILE CANNOT READ PIPE FROM *a*

[33] VFY FILE IMPROPER DEVICE NAME *a*

[34] VFY FILE CANNOT STORE CRC FOR *a*

[35] VFY FILE CANNOT PROCESS *a*
UPDATE MAY BE IN PROGRESS

[36] VFY FILE CANNOT ALLOCATE MEMORY FOR *a*

[37] VFY FILE READ ERROR FOR SPECFILE *a*

SEE PROPRIETARY NOTICE ON COVER PAGE

2. REASON FOR OUTPUT

Formats 1 through 5 are printed to inform the user of the message's status.

Formats 6 through 37 are printed to inform the user of various problems that the `VFY:FILE` command has encountered.

3. VARIABLE FIELD DEFINITIONS

a = Name of the file for which the message is printed.

b = The size of the essential file (mod 2).

c = The calculated cyclic redundancy check (CRC) value for the essential file. For files which contain their own CRC information, this value should match the size of the file.

d = The number of files verified. This count includes files that failed verification.

e = The number of errors encountered during processing.

f = The error message reported by `/usr/bin/mop`.

g = The name of the file being used for global CRC values. Normally this is `/.crcvalues`. This name will be `/._crcvalues` if the pfile currently being processed is in a temporary state, the `/.crclock` directory exists, and there is no lock file for the pfile in the `/.crclock` directory.

h = The line number in the specfile that contains the formatting error.

i = The off-line disk number specified as the argument to the DN keyword on the `VFY:FILE` command line.

j = The stored CRC value for the current file. If the CRC information is stored in `/.crcvalues`, this field contains both the size of file and the CRC.

k = The calculated CRC value for the current file. If the stored CRC information for this file is kept in `/.crcvalues`, this field contains both the calculated size of the file and the CRC.

l = The requested file type against which the specified file was checked.

4. ACTION TO BE TAKEN

If the error count for Format 3 or 5 is non-zero, examine the receive-only printer (ROP) output for other message formats to determine the cause of the errors. Otherwise, no user action is required for Formats 1 through 5.

Format 6 indicates that `VFY:FILE` has terminated.

If Format 7 is printed, the mount off-line partition (MOP) process has failed. Examine the mop error message and take appropriate action.

SEE PROPRIETARY NOTICE ON COVER PAGE

If Format 8 is printed, the user has selected a database partition which does not represent a file system. Find the correct partition number and reenter the command.

Format 9 is generally printed because the user is attempting to use the GEN option on a file which is not executable and trying to store the CRC internally. These files must have their CRC information stored in `/.crcvalues`. If this is not the case, seek technical assistance.

If Formats 10, 12, 13, 15, 16, 22, 26, or 30 are printed, seek technical assistance.

Format 11 indicates that a file is missing or does not have execute permission.

Format 14 is a warning message which may be ignored if CRC information is being generated for the first time. If this is not the case, seek technical assistance.

Format 17 indicates that `VFY:FILE` cannot find CRC information which is supposed to be in `/.crcvalues`. If the CRC information was present and has been lost, seek technical assistance.

If Format 18 is printed, `VFY:FILE` cannot open the file. This is usually an input error. If this is not the case, seek technical assistance.

Formats 19 and 20 indicate problems with specification file supplied to the FLIST parameter. Verify the correctness of the input command and the contents of the specification file.

Format 21 indicates that a field update is in progress for the current file. `VFY:FILE` will not run the CRC algorithm against this file until the update is made permanent. This is an information only message. If this message reoccurs for several days in a row, then check the Software Update status of the file to determine why it has not been made official.

If Format 23 is printed, MOP has been terminated unexpectedly and has left the off-line partition mounted. `VFY:FILE` has attempted to unmount the file system unsuccessfully. Use **`mop -u`** to unmount the file system.

If Format 24 is printed, `VFY:FILE` is unable to verify `/dev/boot`, `/dev/lboot`, and `/dev/vtoc` from the off-line disk. Seek technical assistance.

Format 25 is printed when the path name of the file to be verified is too long for searching `/.crcvalues`. Although the maximum allowed length for the arguments to either of the FN or OLMP options is 63 characters, their combined length must not exceed 63 characters.

Format 27 indicates that `VFY:FILE` cannot get status of the file. This is usually an input error. If this is not the case, seek technical assistance.

Format 28 indicates that the specified file's actual file type is something other than the expected file type. Use the `OP:STATUS;LISTDIR` command to examine the existing file type. If the specified file's existing file type does not match the expected file type, seek technical assistance. Otherwise, verify the correctness of the input message.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 29 indicates that execute permission is not set for owner. Use the `ALW:FILESYS;ACCESS` command to set the appropriate bit.

Formats 31, 32 and 33 indicate problems with accessing an off partition VTOC; seek technical assistance.

Format 34 is printed when the user has requested that a CRC value be generated for a file and stored in that file. The file is not suitable for storing the CRC value internally. The user should store the generated value globally; for example, use the *g* character when specifying the checking type.

If Format 35 is printed, the user may be attempting to process a file that is being updated. If file update is in progress, the user must wait until it is completed before attempting to run `VFY:FILE`; otherwise, the user needs to go into the crclock directory and remove the file that has the same name as the file that `VFY:FILE` will not process.

Format 36 is printed when `VFY:FILE` is unable to allocate sufficient space to read the specification file into memory. The user should seek technical assistance.

Format 37 is printed when `VFY:FILE` is unable to read the specification file into memory. The user should seek technical assistance.

5. ALARMS

This alarm may be a manually-requested report, or an automatically-generated report for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys

Formats 1, 4, 6, 9, 11, 12, 14, 18, 19, 21, 27, and 34 have an OMDB key of 549.
Formats 2 and 5 have an OMDB key of 551.
Formats 3, 7, 8, and 25 have an OMDB key of 550.
Format 35 has an OMDB key of 557.
Format 26 has an OMDB key of 559.
Formats 28, 29, and 30 have an OMDB key of 655.
Format 23 has an OMDB key of 660.
Formats 10, 13, 15, 16, 17, 18, 20, 22, 24, 31, 32, 33, 36, and 37 have an OMDB key of 670.

Input Messages

```
ALW:F;ACCESS
OP:ST;LSTDIR
VFY:FILE
```

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ID . . . . . VFY-MHD-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has two formats.

[1] `VFY MHD` *a* { `NOT STARTED` *b c* |
`STOPPED` *b c* |
`ERROR` *b c* |
`ABORTED` *b c* |
`STARTED` |
`COMPLETED` |
`IN PROGRESS` }

[2] `VFY MHD` *a* `TERM VFY FAILED` *d*
`TRACK/CYL/HD/SC` *e f g h* [`TRACK/CYL/HD/SC` *e f g h*] [`TRACK/CYL/HD/SC` *e f h h*]
`TRACK/CYL/HD/SC` [*e f g h*]

2. REASON FOR OUTPUT

To report the result of executing an `VFY:MHD` input message. See the ACTION TO BE TAKEN section for explanation as to why and when each output message format will be used.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Process step or reason code.

`f03` — failed to fopen /tmp file
`f04` — fseek failed on the output file
`f06` — cannot open ECD
`f09` — cannot get UCB by name
`f12` — cannot reserve UCB
`f15` — cannot assign special device file name
`f18` — cannot open special device file
`f21` — cannot set I/O mode of device file
`f24` — cannot enable message reception
`f27` — see DKDRV error report on the ROP
`f30` — DFC is not in S_ACT state
`f33` — MHD size not recognized
`f36` — see DKDRV error report on the ROP
`f39` — see DKDRV error report on the ROP
`f42` — DFC RAM read failed
`f45` — VFY data overwritten, repeat input request starting from

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track number
`f48` — lseek to "combined" defect table failed
`f51` — first read of defect table failed
`f54` — lseek to "combined" defect table failed
`f57` — second read of defect table failed
`f60` — message to port failure
`f63` — message reception failure
`f66` — process timed out
`f69` — failed to close special device file
`f72` — failed to release special device file
`f75` — failed to unreserve UCB
`f78` — failed to close ECD
`f81` — terminated externally

c = System error code number. See System Error Codes Output Appendix, `SYSERR-APP`.

d = Number of failures (bad sectors for SMD MHD or bad blocks for SCSI MHD) found during the verify step.

e = Relative track number of the indicated bad sector. The track number is relative to the beginning of the disk. It is calculated using all tracks of the disk excluding those tracks mapped out by defect management. This variable field only applies to SMD MHD.

f = Physical cylinder number of the indicated bad sector. This number is calculated using all tracks of the disk including those mapped out by defect management. This variable field only applies to SMD MHD.

g = Physical head number of the indicated bad sector. This number is calculated using all tracks or the disk including those mapped out by defect management. This variable field only applies to SMD MHD.

h = Sector number in use when the failure occurred. It is a relative number (0 to 31). This variable field only applies to SMD MHD.

4. ACTION TO BE TAKEN

Noncompletion termination reports that provide an error code usually indicate a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried.

A termination report that specifies a verification failure means that the indicated disk sectors had uncorrect table data errors or that the format information contained in the sector headers was not expected. This MHD and disk pack should NOT be used until the problem is corrected. If the disk is an SMD drive, the HEAD and TRACK information is output to provide data in helping to determine if the problem is in the MHD (head alignment) or in the disk pack (bad surface).

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

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5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 147, 148, and 149.
Format 2 has an OMDB key of 146.

Output Appendix
```
SYSERR-APP
```

Input Messages
```
INIT:MHD
LOAD:MHD;DEFECT
VFY:MHD
```

Output Messages
```
INIT-MHD
LOAD-MHD,DEFECT
```

ID . . . . . VFY-MHD-B
GENERIC . . . . . UNIX RTR R6.4 only
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has three formats.

[1] `VFY MHD` *a* { `NOT STARTED` *b c* |
`STOPPED` *b c* |
`ERROR` *b c* |
`ABORTED` *b c* |
`STARTED` |
`COMPLETED` |
`IN PROGRESS` }

[2] `VFY MHD` *a* `EARLY TERM VFY FAILED` *d*
`TRACK/CYL/HD/SC TRACK/CYL/HD/SC TRACK/CYL/HD/SC TRACK/CYL/HD/SC`
e f g h [*e f g h*] [*e f g h*] [*e f g h*]

[3] `VFY MHD` *a* `EARLY TERM VFY FAILED` *d*
`BLOCKS BLOCKS BLOCKS BLOCKS`
i [*i*] [*i*] [*i*]

2. REASON FOR OUTPUT

To report the status of a request to verify a moving head disk (MHD).

If the verify process was invoked via the VFY MHD poke on the data file system access (DFSA) display page during disk independent operation (DIOP) mode, a `REPT-DKDIP` message will precede the output message line.

3. VARIABLE FIELD DEFINITIONS

a = MHD Member number.

b = Process step or reason code.

`f01` — failed to `fopen() /tmp` file
`f03` — `fseek()` failed on the output file
`f06` — failed to open ECD
`f09` — failed to get UCB by name
`f0a` — "TRACK", "BLOCK" or "NEW" are not valid for SCSI MHD
`f0c` — "TRACK" is not valid for SCSI MHD
`f0e` — single block format not allowed for SCSI disk
`f12` — "BLOCK" is not valid for SMD MHD
`f18` — failed to reserve UCB
`f1b` — failed to assign special device file name
`f1d` — failed to open device file
`f21` — failed to set I/O mode of device file
`f24` — failed to enable message reception

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`f27` — see DKDRV report on the ROP
`f30` — DFC is not in S_ACT state
`f33` — MHD size not recognized
`f36` — see DKDRV report on the ROP
`f37` — DKDIP virtual address translation failure
`f39` — see DKDRV report on the ROP
`f42` — DFC RAM read failed
`f45` — verify data overwritten - repeat input request starting from track number
`f46` — start block greater than LBA
`f47` — see DKDRV report on the ROP
`f48` — DKDIP virtual address translation failure
`f49` — see DKDRV report on the ROP
`f4c` — read of the HA RAM data table failed
`f4e` — see DKDRV report on the ROP
`f52` — read of the DFC firmware UPT failed
`f55` — failed to get UCB of the MHD's SBUS by RID
`f58` — see DKDRV report on the ROP
`f5b` — read of the verify failure data failed
`f5e` — invalid verify data
`f63` — `lseek()` to "combined" defect table failed
`f64` — DKDIP virtual address translation failure
`f66` — first read of defect table failed
`f69` — `lseek()` to "combined" defect table failed
`f6a` — DKDIP virtual address translation failure
`f6c` — second read of defect table failed
`f6e` — message to port failure
`f71` — message reception failure
`f72` — manual abort requested
`f73` — manual abort requested
`f74` — process timed out
`f78` — failed to close special device file
`f7c` — failed to release special device file
`f7f` — failed to unreserve UCB
`f83` — failed to close ECD
`f86` — terminated externally with signal
`f93` — failed to get the segment number
`f96` — SCSI "format" command failed
`f99` — message to port failure
`f9c` — message reception failure
`f9f` — see DKDRV report on the ROP
`fa1` — failed to get the segment number
`fa5` — SCSI "inquiry" command failed
`fa9` — failed to get the segment number
`fb1` — SCSI "mode sense" command failed
`fb2` — data overflow - too many block descriptors
`fb5` — failed to get the segment number
`fb9` — SCSI "mode select" command failed
`fc1` — see DKDRV report on the ROP
`fc6` — failed to get segment number

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`fc9` — SCSI "read capacity" command failed

c = System error code number. See System Error Codes Output Appendix, `SYSERR-APP`.

d = Number of failures (bad sectors for SMD MHD or bad blocks for SCSI MHD) found during the verify step.

e = Relative track number of the indicated bad sector. The track number is relative to the beginning of the disk. It is calculated using all tracks of the disk excluding those tracks mapped out by defect management. This variable field only applies to an SMD MHD.

f = Physical cylinder number of the indicated bad sector. This number is calculated using all tracks of the disk including those mapped out by defect management. This variable field only applies to an SMD MHD.

g = Physical head number of the indicated bad sector. This number is calculated using all tracks of the disk including those mapped out by defect management. This variable field only applies to an SMD MHD.

h = Sector number in use when the failure occurred. It is a relative number (0 to 31). This variable field only applies to an SMD MHD.

i = Logical disk block number of the bad disk block found on the SCSI disk drive during the verify operation.

4. ACTION TO BE TAKEN

Noncompletion termination reports that provide an error code usually indicate a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and retry the input request.

A termination report specifying a verification failure means that the indicated disk sectors had uncorrectable data errors or that the format information contained in the sector headers was not as expected. This disk media should NOT be used until the problem is corrected. For an SMD MHD, the HEAD and TRACK information is output to help determine if the problem is with the MHD (head alignment) or in the disk media (bad surface).

For an SMD MHD, the CYL, HEAD, and SECT information can be used as input to the `LOAD:MHD;DEFECT` command. For an SCSI MHD, the BLOCK information can be used as input to the `LOAD:MHD;DEFECT` command.

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

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5. ALARMS

This alarm may be a manually-requested report, or an automatically-generated report for information only.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 147, 148, and 149.
Format 2 has an OMDB key of 146.
Format 3 has an OMDB key of 569.

Output Appendix
SYSERR-APP

Input Messages
LOAD:MHD
VFY:MHD

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ID . . . . . VFY-MHD-C
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . DSKUTL

1. FORMAT

This message has four formats.

[1] `VFY MHD` *a* { `NOT STARTED` *b c* |
`STOPPED` *b c* |
`ERROR` *b c* |
`ABORTED` *b c* |
`STARTED` |
`COMPLETED` |
`IN PROGRESS` }

[2] `VFY MHD` *a* `EARLY TERM VFY FAILED` *d*
`TRACK/CYL/HD/SC TRACK/CYL/HD/SC TRACK/CYL/HD/SC TRACK/CYL/HD/SC`
e f g h [*e f g h*] [*e f g h*] [*e f g h*]

[3] `VFY MHD` *a* `EARLY TERM VFY FAILED` *d*
`BLOCKS BLOCKS BLOCKS BLOCKS`
i [*i*] [*i*] [*i*]

[4] `VFY MHD` *a* `ABORTED` *b*
`ERROR DATA` *j k l m n*

2. REASON FOR OUTPUT

To report the status of a request to verify a moving head disk (MHD).

If the verify process was invoked via the VFY MHD poke on the data file system access (DFSA) display page during disk independent operation (DIOP) mode, a `REPT-DKDIP` message will precede the output message.

Format 4 provides additional error information when an explicit small computer system interface (SCSI) command fails. The additional error data is necessary to determine the exact cause of the error condition.

3. VARIABLE FIELD DEFINITIONS

a = MHD member number.

b = Process step or reason code.

`f01` — failed to `fopen() /tmp` file
`f03` — `fseek()` failed on the output file
`f04` — failed to open ECD
`f05` — failed to get UCB by name

`f06` — failed to get UCB of controlling unit
`f07` — controlling unit is not active
`f09` — MHD size not recognized
`f0a` — "TRACK", "BLOCK", or "NEW" are not valid for SCSI MHD
`f0c` — "TRACK" is not valid for SCSI MHD
`f12` — "BLOCK" is not valid for SMD MHD
`f13` — failed to get top UCB
`f14` — top UCB is not a DFC
`f15` — unknown DFC type
`f18` — failed to reserve UCB
`f1b` — failed to assign special device file name
`f1d` — failed to open device file
`f21` — failed to set I/O mode of device file
`f24` — failed to enable message reception
`f27` — see DKDRV report on the ROP
`f30` — Head UPT address is not available
`f36` — see DKDRV report on the ROP
`f37` — DKDIP virtual address translation failure
`f39` — see DKDRV report on the ROP
`f42` — DFC RAM read failed
`f45` — VFY data overwritten - repeat input request starting from track number
`f46` — start block greater than the LBA
`f47` — see DKDRV report on the ROP
`f48` — DKDIP virtual address translation failure
`f49` — see DKDRV report on the ROP
`f4c` — read of the DFC head UPT failed
`f4e` — see DKDRV report on the ROP
`f52` — read of the DFC firmware UPT failed
`f55` — failed to get UCB of the MHD's SBUS by RID
`f58` — see DKDRV report on the ROP
`f5b` — read of the verify failure data failed
`f5e` — invalid verify data
`f63` — `lseek()` to "comb" defect table failed
`f64` — DKDIP virtual address translation failure
`f66` — first read of defect table failed
`f69` — `lseek()` to "comb" defect table failed
`f6a` — DKDIP virtual address translation failure
`f6c` — second read of defect table failed
`f6e` — message to port failure
`f71` — message reception failure
`f72` — manual abort requested
`f73` — manual abort requested
`f74` — process timed out
`f78` — failed to close special device file
`f7c` — failed to release special device file
`f7f` — failed to unreserve UCB
`f83` — failed to close ECD
`f86` — terminated externally with signal
`f93` — failed to get the segment number

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`f96` — SCSI "format" command failed
`f99` — message to port failure
`f9c` — message reception failure
`f9f` — see DKDRV report on the ROP
`fa1` — failed to get the segment number
`fa5` — SCSI "inquiry" command failed
`fa7` — SCSI "inquiry" command data underflow
`fa9` — failed to get the segment number
`fb1` — SCSI "mode sense" command failed
`fb2` — data overflow - too many block descriptors
`fb5` — failed to get the segment number
`fb9` — SCSI "mode select" command failed
`fc1` — see DKDRV report on the ROP
`fc6` — failed to get the segment number
`fc9` — SCSI "read capacity" command failed
`ffe` — aborted due to phase 1

c = System error code number. See System Error Codes Output Appendix, SYSERR-APP.

d = Number of failures (bad sectors for SMD MHD or bad blocks for SCSI MHD) found during the verify step.

e = Relative track number of the indicated bad sector. The track number is relative to the beginning of the disk. It is calculated using all tracks of the disk excluding those tracks mapped out by defect management. This variable field only applies to an SMD MHD.

f = Physical cylinder number of the indicated bad sector. This number is calculated using all tracks of the disk including those mapped out by defect management. This variable field only applies to an SMD MHD.

g = Physical head number of the indicated bad sector. This number is calculated using all tracks of the disk including those mapped out by defect management. This variable field only applies to an SMD MHD.

h = Sector number in use when the failure occurred. It is a relative number (0 to 31). This variable field only applies to an SMD MHD.

i = Logical disk block number of the bad disk block found on the SCSI disk drive during the verify operation.

j = Command completion word. The command completion word is eight hexadecimal digits of the form AAAABBCC.

AAAA = SCSI job block (SJB) completion code. See "Job completion code" under "General Job Information" in output DFC Appendix K, DFC-APPK.

BB = Status byte. See "Target SCSI status byte" under "SCSI Command Information" in output DFC Appendix K, DFC-APPK.

CC = Fill. Not used.

k = First word of extended sense data (ESD). See output DFC Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 0 of ESD.

BB = Byte 1 of ESD.

CC = Byte 2 of ESD.

DD = Byte 3 of ESD.

l = Second word of ESD. See output DFC Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 4 of ESD.

BB = Byte 5 of ESD.

CC = Byte 6 of ESD.

DD = Byte 7 of ESD.

m = Third word of ESD. See output DFC Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 8 of ESD.

BB = Byte 9 of ESD.

CC = Byte 10 of ESD.

DD = Byte 11 of ESD.

n = Fourth word of ESD. See output DFC Appendix J, DFC-APPJ. This word is structured as eight hexadecimal digits of the form AABBCCDD.

AA = Byte 12 of ESD.

BB = Byte 13 of ESD.

CC = Byte 14 of ESD.

DD = Byte 15 of ESD.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

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Noncompletion termination reports that provide an error code usually indicate a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and retry the input request.

A termination report specifying a verification failure means that the indicated disk sectors had uncorrectable data errors or that the format information contained in the sector headers was not as expected. This disk media should not be used until the problem is corrected. For an SMD MHD, the HEAD and TRACK information is output to help determine if the problem is with the MHD (head alignment) or in the disk media (bad surface).

For an SMD MHD, the CYL, HEAD, and SECT information can be used as input to the `LOAD:MHD;DEFECT` command. For an SCSI MHD, the BLOCK information can be used as input to the `LOAD:MHD;DEFECT` command.

If Format 4 prints, the SCSI disk drive encountered an internal drive error. Retain a copy of the error data, then contact the next level of technical support to aid in determining the cause of the error condition.

5. ALARMS

This alarm may be a manually-requested report, or an automatically-generated report for information only.

There is a manual alarm for OMDB keys 147 and 666, and an information alarm for OMDB key 148.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

There is a major alarm for OMDB keys 146, 149, and 569.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 147, 148, and 149.
Format 2 has an OMDB key of 146.
Format 3 has an OMDB key of 569.
Format 4 has an OMDB key of 666.

Output Appendix
`DFC-APPJ`
`DFC-APPK`
`SYSERR-APP`

Input Messages
`LOAD:MHD`
`VFY:MHD`

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ID . . . . . VFY-PAUTH
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . AUTH

1. FORMAT

This message has two formats.

[1] `VFY PAUTH COMPLETED`

IDENT	PSSWDPFX	PSSWDSFX
a	*b*	*c*
.	.	.
.	.	.
.	.	.

[2] `VFY PAUTH COMPLETED`

IDENT	LAST LOGIN	STATUS
a	*d*	*e*

2. REASON FOR OUTPUT

To report the result of a `VFY:PAUTH` input message, which allows verification of a person or group time of last login and user status or a person or group password prefix and suffix.

Format 1 indicates successful completion of the `VFY:PAUTH` input message executed with the password enhancement feature disabled.

Format 2 indicates successful completion of the `VFY:PAUTH` input message executed with the password enhancement feature enabled.

3. VARIABLE FIELD DEFINITIONS

a = Person identity.

b = Password prefix.

c = Password suffix.

d = Date and time of last login.

e = User status, either `ENABLE` or `DISABLE`.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This manually-generated report is for information only.

6. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 306.

Input Message
VFY:PAUTH

ID . . . . . VFY-PCGRP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . AUTH

1. FORMAT

```
VFY PCGRP COMPLETED

IDENT         PROFL     COMGR

  a             b         c
                .         .
                .         .
                .         .
```

2. REASON FOR OUTPUT

To report the result of entering a VFY:PCGRP input message.

3. VARIABLE FIELD DEFINITIONS

a = Person identity.

b = A profile with a set of command groups.

c = Command group.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This manually-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 305.

Input Message
VFY:PCGRP

Output Message
VFY-PAUTH

ID . . . . . VFY-PROFL
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . AUTH

1. FORMAT

```
VFY PROFL


{PROFILE |PROFILE   COMGR}

{  a     |  a         b  }
{  .     |  .         .  }
{  .     |  .         .  }
{  .     |  .         .  }
```

2. REASON FOR OUTPUT

Format 1 is to output the list of user command group profiles (PROFLs) resulting from the VFY:PROFL input message.

Format 2 is to output entries from the command group profile (PROFL) database that were selected by the VFY:PROFL,IDENT input message.

3. VARIABLE FIELD DEFINITIONS

a = Profile identity.

b = Command group.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This manually-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 305.

Input Messages
ADD:PROFL
CHG:PROFL
DEL:PROFL
VFY:PROFL

ID . . . . . VFY-TAPE-A
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3 and R21.11
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has five formats.

[1] `VFY TAPE STARTED`

[2] `VFY TAPE ABORTED [OPEN ERROR]`
`VFY TAPE STOPPED, LSEEK FAILED`

[3] `VFY TAPE STOPPED {UNABLE TO READ HEADER` *a* `|`
`DATA READ ERROR - BLOCK TOO LARGE - HEADER` *a* `|`
`DATA READ ERROR - HEADER` *a*`, RECORD` *b* `|`
`EOF ON INPUT - HEADER` *a*`, RECORD` *b*
`LSEEK FAILED}`

[4] `VFY TAPE IN PROGRESS {HEADER HASH SUM MATCH - HEADER` *a* `|`
`HEADER HASH SUM MISMATCH - HEADER` *a* `|`
`DATA HASH SUM MISMATCH - HEADER` *a* `|`
c `RETRIES NEEDED TO READ HEADER` *a* `|`
c `RETRIES NEEDED TO READ DATA` *a*`, RECORD` *b*`}`

[5] `VFY TAPE COMPLETED RETRIES =` *d*`, HEADER MISMATCHES =` *e*`,`
`DATA MISMATCHES =` *f*

2. REASON FOR OUTPUT

To output information concerning the condition of a system tape which is being verified in response to the `VFY:TAPE` input message.

3. VARIABLE FIELD DEFINITIONS

a = Number of header (counted from beginning of tape).

b = Number of data record following a given header.

c = Number of retries needed to read successfully.

d = Total number of retries needed in reading system tape.

e = Total number of header hash sum mismatches found on tape.

f = Total number of data hash sum mismatches found on tape.

4. ACTION TO BE TAKEN

A `STOPPED` output message indicates probable physical damage to the tape or an improper end of tape marker. HASH `SUM MISMATCH` output messages indicate an

inconsistency between the data being read and that which was originally written. A `RETRIES NEEDED` output message implies difficulty with reading a certain spot on the tape. An `LSEEK FAILED` output message indicates difficulty when trying to find the offset to re-read the tape when initial read has failed. All of these messages imply that the spot on the tape being read when the message occurred may be unusable.

A `COMPLETED` message with zero retries, zero header mismatches, and zero data mismatches indicates a completely verified tape.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Formats 1 and 2 have an OMDB key of 181.
Format 3 has OMDB keys of 182 and 183.
Format 4 has OMDB keys of 182, 320, and 321.
Format 5 has an OMDB key of 184.

Input Message
`VFY:TAPE`

ID . . . . . VFY-TAPE-B
GENERIC . . . . . UNIX RTR R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

This message has seven formats.

[1] `VFY TAPE STARTED`

[2] `VFY TAPE ABORTED`
`OPEN ERROR`

[3] `VFY TAPE STOPPED {UNABLE TO READ HEADER` *a* `|`
`DATA READ ERROR - BLOCK TOO LARGE - HEADER` *a* `|`
`DATA READ ERROR - HEADER` *a*`, RECORD` *b* `|`
`EOF ON INPUT - HEADER` *a*`, RECORD` *b* `|`
`UNABLE TO POSITION TAPE AT BEGINNING OF SESSION` *g* `|`
`UNABLE TO POSITION TAPE AT BEGINNING OF SESSION` *g* `VOLUME` *h* `|`
`DATA READ ERROR - HEADER` *a*`, RECORD` *b* `IN SESSION` *g* `VOLUME` *h* `|`
`EOF ON INPUT - HEADER` *a*`, RECORD` *b* `IN SESSION` *g* `VOLUME` *h* `|`
`UNEXPECTED END OF DATA - HEADER` *a*`}`

[4] `VFY TAPE STOPPED`
`{LSEEK FAILED |`
`CLOSE ERROR |`
`CANNOT POSITION TAPE AT BEGINNING OF TAPE |`
`CANNOT SPECIFY MULTI-VOLUME OPTIONS WITH A SINGLE VOLUME TAPE |`
`ECD ACCESS FAILED - CANNOT DETERMINE TAPE DRIVE TYPE |`
`UNLINK OF TEMPORARY NOREWIND TAPE SPECIAL DEVICE FILE FAILED |`
`UNABLE TO CREATE TEMPORARY NOREWIND TAPE SPECIAL DEVICE FILE |`
`MULTI-VOLUME TAPES ARE ONLY SUPPORTED ON THE 3B21D |`
`UNABLE TO READ HEADER` *a* `IN SESSION` *g* `VOLUME` *h* `|`
`DATA READ ERROR - BLOCK TOO LARGE - HEADER` *a* `IN SESSION` *g* `VOLUME` *h* `|`
`UNEXPECTED END OF DATA - HEADER` *a* `IN SESSION` *g* `VOLUME` *h*`}`

[5] `VFY TAPE IN PROGRESS {HEADER HASH SUM MATCH - HEADER` *a* `|`
`HEADER HASH SUM MISMATCH - HEADER` *a* `|`
`DATA HASH SUM MISMATCH - HEADER` *a* `|`
c `RETRIES NEEDED TO READ HEADER` *a* `|`
c `RETRIES NEEDED TO READ DATA` *a*`, RECORD` *b* `|`
`MORE THAN TWO TOP VOLUMES ON TAPE |`
`SESSION` *g* `VOLUME` *h* `COMPLETED |`
`SESSION` *g* `VOLUME` *h* `OUT OF SEQUENCE}`

[6] `VFY TAPE IN PROGRESS`
`{HEADER HASH SUM MATCH - HEADER` *a* `IN SESSION` *g* `VOLUME` *h* `|`

HEADER HASH SUM MISMATCH - HEADER *a* IN SESSION *g* VOLUME *h* |
DATA HASH SUM MISMATCH - HEADER *a* IN SESSION *g* VOLUME *h* |
c RETRIES NEEDED TO READ HEADER *a* IN SESSION *g* VOLUME *h* |
c RETRIES NEEDED TO READ DATA *a*, RECORD *b* IN SESSION *g* VOLUME *h*}

[7] VFY TAPE COMPLETED RETRIES = *d*, HEADER MISMATCHES = *e*,
DATA MISMATCHES = *f*

2. REASON FOR OUTPUT

To output information concerning the condition of a system tape which is being verified in response to the VFY:TAPE input message.

3. VARIABLE FIELD DEFINITIONS

a = Number of header (a count that identifies the header within a logical volume).

b = Number of data record following a given header.

c = Number of retries needed to read successfully (0-9).

d = Total number of retries needed in reading system tape.

e = Total number of header hash sum mismatches found on tape.

f = Total number of data hash sum mismatches found on tape.

g = Number of backup session on tape (1-9).

h = Number of logical volume within a backup session (0-9).

4. ACTION TO BE TAKEN

A STOPPED output message indicates probable physical damage to the tape or an improper end of tape marker. HASH SUM MISMATCH output messages indicate an inconsistency between the data being read and that which was originally written. A RETRIES NEEDED output message implies difficulty with reading a particular spot on the tape. An LSEEK FAILED output message indicates difficulty when trying to find the offset to re-read the tape when initial read has failed. All of these messages imply that the spot on the tape being read when the message occurred may be unusable.

A COMPLETED message with zero retries, zero header mismatches, and zero data mismatches indicates a completely verified tape.

5. ALARMS

None. This alarm is a manually-requested report.

SEE PROPRIETARY NOTICE ON COVER PAGE

6. REFERENCES

OMDB Key(s)

Formats 1 and 2 have an OMDB key of 181.
Format 3 has OMDB keys of 182, 183, 752, and 755.
Format 4 has OMDB keys of 181 and 754.
Format 5 has OMDB keys of 182, 320, 321, and 753.
Format 6 has OMDB keys of 181, 754, 756, and 757.
Format 7 has an OMDB key of 184.

Input Message(s)

VFY:TAPE

ID . . . . . VFY-TAUTH
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . AUTH

1. FORMAT

```
VFY TAUTH COMPLETED

TERM

a
.
.
.
```

2. REASON FOR OUTPUT

To verify the requested terminal identities in the terminal authority (TAUTH) database resulting from the VFY:TAUTH input command.

3. VARIABLE FIELD DEFINITIONS

a = List of terminal identities in four characters, starting with "tty".

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This manually-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 305.

Input Messages
ADD:TAUTH
DEL:TAUTH
VFY:TAUTH

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . VFY-TCGRP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . AUTH

1. FORMAT

```
VFY TCGRP COMPLETED


TERM         COMGR

 a             b
               .
               .
               .
```

2. REASON FOR OUTPUT

To print in response to the VFY:TCGRP command, which allows the retrieval of entries from the terminal command group (TCGRP) database.

3. VARIABLE FIELD DEFINITIONS

a = Terminal identity in four characters.

b = Command group.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. This manually-generated report is for information only.

6. REFERENCES

OMDB Key
This message has an OMDB key of 305.

Input Messages
ADD:TCGRP
DEL:TCGRP
VFY:TCGRP

Output Message
VFY-TAUTH

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . WHEN-COND
GENERIC . . . . . UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`WHEN COND E` *a b c #d*

2. REASON FOR OUTPUT

To report the status of processing a breakpoint definition.

3. VARIABLE FIELD DEFINITIONS

a = Termination or progress report:

- `STARTED` — The operation has begun. Some information on the breakpoint is available and is supplied here. Expect another message indicating the termination status.
- `STOPPED` — The operation could not be completed. The cause of the error is also printed. The breakpoint definition has been removed.
- `COMPLETED` — The breakpoint was successfully 'planted'. Supplementary information is also supplied.

If *a* is `STARTED`,

b = H = Hard breakpoint implementation.

If *a* is `STOPPED`,

b = Type of error that was encountered:

- `TOOMANY` — Only 20 breakpoints are allowed to be defined at one time.
- `UCERR` — The utility circuit either does not respond or does not match the circuit present earlier in the debugging session.
- `UCFNAV` — The particular utility circuit function requested is not available.

SEE PROPRIETARY NOTICE ON COVER PAGE

If *a* is COMPLETED,

b = State of the breakpoint:

ENABLED — The breakpoint's action list will be executed as soon as the breakpoint conditions occur.

DISABLED — The breakpoint's action list will not be executed at all unless the breakpoint is allowed with an ALW:UTIL or ALW:UTILFLAG input message.

c = Breakpoint number. This is used in all future references to the breakpoint.

d = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If the termination status was STOPPED because of TOOMANY, NGBPT, or UCFNAV, another breakpoint will have to be cleared with the CLR:UTILFLAG input message before this one can be processed.

If the termination status was STOPPED because of UCERR, the utility circuit hardware may be faulty. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

Input Messages

ALW:UTIL
ALW:UTILFLAG
CLR:UTIL
CLR:UTILFLAG
INIT:UC
OP:ST;PROC
OP:UTIL
WHEN:PID
WHEN:UID

Output Message

OP-UTIL

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ID . . . . . WHEN-PID
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`WHEN PID` *a* `ADDR` *b c d e #f*

2. REASON FOR OUTPUT

To report the status of processing a breakpoint definition.

3. VARIABLE FIELD DEFINITIONS

a = Process ID (PID) of the target process.

b = Address of the breakpoint.

c = Termination or progress report:

`COMPLETED` — The breakpoint was successfully "planted". Supplementary information is also supplied.

`STARTED` — The operation has begun. Some information on the breakpoint is available and is supplied here. Expect another message indicating the termination status.

`STOPPED` — The operation could not be completed. The cause of the error is also printed. The breakpoint definition has been removed.

If *c* is `STARTED`:

d = Breakpoint implementation:

`HARD` — Hardware implementation.
`SOFT` — Software implementation.

If *c* is `STOPPED`:

d = Type of error that was encountered:

`NGADDR` — The address specified is not valid for the specified process.

`NGBPT` — There is already a breakpoint defined for the same address of the same process.

`NGOPC` — The first byte of the specified opcode does not agree with that specified on the `WHEN` input message.

`NGPID` — The process ID specified is not that of a running process.

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TOOMANY — Only 20 breakpoints are allowed to be defined at one time.
UCERR — The utility circuit either does not respond or does not match the circuit present earlier in the debugging session.
UCFNAV — The particular utility circuit function requested is not available.
PLNTFAIL — Attempt to plant software breakpoint failed.

If *c* is COMPLETED:

d = State of the breakpoint:

DISABLED — The breakpoint's action list will not be executed at all unless the breakpoint is allowed with an ALW:UTIL or ALW:UTILFLAG input message.

ENABLED — The breakpoint's action list will be executed as soon as the breakpoint conditions occur.

e = Breakpoint number. This is used in all future references to the breakpoint.

f = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If the termination status was STOPPED because of TOOMANY, NGBPT, or UCFNAV, another breakpoint will have to be cleared with the CLR:UTILFLAG input message before this one can be processed.

If the termination status was STOPPED because of NGADDR or NGOPC, recheck the address or opcode used against the program listings. Consider that the listings themselves might be in error.

If the termination status was STOPPED because of NGPID and it happens repeatedly, consider using the process utility identification (UID) instead of a PID.

If the termination status was STOPPED because of UCERR, the utility circuit hardware may be faulty. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. ALARMS

None.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 493 and, if *c* is STOPPED, 503.

Input Messages

```
ALW:UTIL
ALW:UTILFLAG
CLR:UTIL
CLR:UTILFLAG
INIT:UC
OP:ST;PROC
OP:UTIL
WHEN:PID
WHEN:UID
```

Output Message

```
OP-UTIL
```

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ID . . . . . WHEN-UID
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

1. FORMAT

`WHEN UID` *a* `ADDR` *b c d e #f*

2. REASON FOR OUTPUT

To report the status of processing a breakpoint definition.

3. VARIABLE FIELD DEFINITIONS

a = Utility ID of the target process.

b = Address of the breakpoint.

c = Termination or progress report:

`COMPLETED` — The breakpoint was successfully "planted". Supplementary information is also supplied.
`STARTED` — The operation has begun. Some information on the breakpoint is available and is supplied here. Expect another message indicating the termination status.
`STOPPED` — The operation could not be completed. The cause of the error is also printed. The breakpoint definition has been removed.

If *c* is `STARTED`:

d = Breakpoint implementation:

`HARD` — Hardware implementation.
`SOFT` — Software implementation.

If *c* is `STOPPED`:

d = Type of error that was encountered:

`TOOMANY` — Only 20 breakpoints are allowed to be defined at one time.
`NGADDR` — The specified address is not valid for the specified process.
`NGBPT` — There is already a breakpoint defined for the same address of the same process.
`NGOPC` — The first byte of the specified opcode does not agree with that specified in the `WHEN` message.
`UCFNAV` — The particular utility circuit function requested is not available.

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UCERR — The utility circuit either does not respond or does not match the circuit present earlier in the debugging session.
PLNTFAIL — Attempt to plant software breakpoint failed.

If *c* is COMPLETED:

d = State of the breakpoint:

DISABLED — The breakpoint's action list will not be executed at all unless the breakpoint is allowed with an ALW:UTIL or ALW:UTILFLAG input message.
ENABLED — The breakpoint's action list will be executed as soon as the breakpoint conditions occur.

e = Breakpoint number. This is used in all future references to the breakpoint.

f = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

The termination status was STOPPED because of TOOMANY, NGBPT, or UCFNAV, another breakpoint will have to be cleared with CLR:UTILFLAG before this one can be processed.

If the termination status was STOPPED because of NGADDR or NGOPC, recheck the address or opcode used against the program listing. Consider that the listings themselves might be in error.

If the termination status was STOPPED because of UCERR, the utility circuit hardware may be faulty. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Keys
Format 1 has OMDB keys of 493 and, if *c* is STOPPED, 503.

Input Messages
ALW:UTIL
ALW:UTILFLAG
CLR:UTIL
CLR:UTILFLAG
INIT:UC
OP:ST;PROC
OP:UTIL
WHEN:PID
WHEN:UID

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Output Message
OP-UTIL

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Section 3

Output Message Alphabetical Indexes

Message Name	Message ID	Generic
ACTV OMDB	ACTV-OMDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW AUD	ALW-AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW CONFLOG	ALW-CONFLOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW DMQ	ALW-DMQ-A	UNIX RTR R1.5 only
ALW DMQ	ALW-DMQ-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW EAIINT	ALW-EAIINT	UNIX RTR R21.3, R21.11, R21.15 and later
ALW ERRCHK	ALW-ERRCHK-A	UNIX RTR R1.5 only
ALW ERRCHK	ALW-ERRCHK-B	UNIX RTR R6.4 only
ALW ERRCHK	ALW-ERRCHK-C	UNIX RTR R21.3, R21.11, R21.15 and later
ALW ERRINT	ALW-ERRINT-A	UNIX RTR R1.5 only
ALW ERRINT	ALW-ERRINT-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW ERRSRC	ALW-ERRSRC-A	UNIX RTR R1.5 only
ALW ERRSRC	ALW-ERRSRC-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW FILESYS ACCESS	ALW-F,ACCESS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW FILESYS MOUNT	ALW-F,MOUNT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW FILESYS OWNER	ALW-F,OWNER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW HDWCHK	ALW-HDWCHK-A	UNIX RTR R1.5 only
ALW HDWCHK	ALW-HDWCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW REX	ALW-REX	UNIX RTR R21.3, R21.11, R21.15 and later
ALW SCSD	ALW-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
ALW SFTCHK	ALW-SFTCHK-A	UNIX RTR R1.5 only
ALW SFTCHK	ALW-SFTCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW UMEM	ALW-UMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW UTIL	ALW-UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW UTILFLAG	ALW-UTILFLAG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ANALY TLPFILE	ANALY-TLPFILE-A	UNIX RTR R1.5, R6.4, and R21.3,
ANALY TLPFILE	ANALY-TLPFILE-B	UNIX RTR R21.11, R21.15, R21.17 and R21.31
ANALY TLPFILE	ANALY-TLPFILE-C	UNIX RTR R21.23, R21.27 and R21.30
ANALY TLPFILE	ANALY-TLPFILE-D	UNIX RTR R21.35 and later
APPENDIX ACKDGMNT DATABASE	APP-ACK-DB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT A	APP-AUD-APPA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT B	APP-AUD-APPB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT C	APP-AUD-APPC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUDIT D	APP-AUD-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX AUTHORITY CODE	APP-AUTH-CODE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX BOOTDISKCHK	APP-BOOTDISKCHK	UNIX RTR R21.27 and later
APPENDIX DCI A	APP-DCI-APPA-A	UNIX RTR R21.3 and R21.11
APPENDIX DCI A	APP-DCI-APPA-B	UNIX RTR R21.15 thru R21.30
APPENDIX DCI A	APP-DCI-APPA-C	UNIX RTR R21.31 and later
APPENDIX DCI B	APP-DCI-APPB-A	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI C	APP-DCI-APPC	UNIX RTR R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
APPENDIX DCI D	APP-DCI-APPD	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI E	APP-DCI-APPE	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI F	APP-DCI-APPF	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI G	APP-DCI-APPG	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DCI H	APP-DCI-APPH	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DFC A	APP-DFC-APPA-A	UNIX RTR R1.5 only
APPENDIX DFC A	APP-DFC-APPA-B	UNIX RTR R6.4 only
APPENDIX DFC A	APP-DFC-APPA-C	UNIX RTR R21.3 only
APPENDIX DFC A	APP-DFC-APPA-D	UNIX RTR R21.11, R21.15, 21.19 thru 21.25
APPENDIX DFC A	APP-DFC-APPA-F	UNIX RTR R21.23 only
APPENDIX DFC A	APP-DFC-APPA-G	UNIX RTR R21.27 and R21.30
APPENDIX DFC A	APP-DFC-APPA-H	UNIX RTR R21.31, R21.33 and later
APPENDIX DFC B	APP-DFC-APPB-A	UNIX RTR R1.5 and R6.4
APPENDIX DFC B	APP-DFC-APPB-B	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DFC C	APP-DFC-APPC-A	UNIX RTR R1.5 and R6.4
APPENDIX DFC C	APP-DFC-APPC-B	UNIX RTR R21.3, R21.11, R21.15 and later
APPENDIX DFC D	APP-DFC-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC E	APP-DFC-APPE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC F	APP-DFC-APPF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC G	APP-DFC-APPG-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
APPENDIX DFC G	APP-DFC-APPG-B	UNIX RTR R21.11 and R21.15
APPENDIX DFC H	APP-DFC-APPH-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
APPENDIX DFC H	APP-DFC-APPH-B	UNIX RTR R21.11 and R21.15
APPENDIX DFC I	APP-DFC-APPI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
APPENDIX DFC J	APP-DFC-APPJ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC K	APP-DFC-APPK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC L	APP-DFC-APPL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC M	APP-DFC-APPM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC N	APP-DFC-APPN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC O	APP-DFC-APPO	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX DFC P	APP-DFC-APPP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX FAULT CODE	APP-FAULT-CODE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX FIELD MAINT CODES	APP-FMC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX FLD UDATE ERROR CODES	APP-FUEC-APP	UNIX R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP A	APP-IOP-APPA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP B	APP-IOP-APPB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP C	APP-IOP-APPC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP D	APP-IOP-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP E	APP-IOP-APPE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP F	APP-IOP-APPF-A	UNIX RTR R1.5 and R6.4
APPENDIX IOP F	APP-IOP-APPF-B	UNIX RTR R21.3, R21.11, R21.15 thru R21.25
APPENDIX IOP F	APP-IOP-APPF-C	UNIX RTR R21.27 and later

Message Name	Message ID	Generic
APPENDIX IOP G	APP-IOP-APPG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP H	APP-IOP-APPH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP I	APP-IOP-APPI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX IOP J	APP-IOP-APPJ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX LLA	APP-LLA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MEMBER NUMBERS B	APP-MEM-NUM-APPB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MEMBER NUMBERS C	APP-MEM-NUM-APPC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MEMBER NUMBERS D	APP-MEM-NUM-APPD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX MESSAGE CLASS	APP-MSGCLASS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX OMDB X REF	APP-OMDB-REF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX OP FNAME	APP-OP-FNAME	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX OST	APP-OST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX SUPR	APP-SUPR-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
APPENDIX SUPR	APP-SUPR-B	UNIX RTR R21.27 and later
APPENDIX SUPR MENU PAGE	APP-SUPR-MENU-PG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
APPENDIX SYSTEM ERROR CODES	APP-SYSERR-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
APPENDIX SYSTEM ERROR CODES	APP-SYSERR-B	UNIX RTR R21.11 and R21.15
APPENDIX TAPE LIBRARY ERRORS	APP-TAPE-LIB	UNIX RTR R21.15 and later
APPENDIX UTILITY ID	APP-UTIL-ID-A	UNIX RTR R1.5, R6.4, R21.3, and R21.11
APPENDIX UTILITY ID	APP-UTIL-ID-B	UNIX RTR R21.15 and later

Message Name	Message ID	Generic
APPLY OMDB	APPLY-OMDB-A	UNIX RTR R1.5 only
APPLY OMDB	APPLY-OMDB-B	UNIX RTR R6.4 and R21.3
APPLY OMDB	APPLY-OMDB-C	UNIX RTR R21.11, R21.15 and later
AUD CUMEM	AUD-CUMEM-A	UNIX RTR R1.5 only
AUD CUMEM	AUD-CUMEM-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD CUSTAT	AUD-CUSTAT-A	UNIX RTR R1.5 only
AUD CUSTAT	AUD-CUSTAT-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD ECD	AUD-ECD-A	UNIX RTR R1.5 only
AUD ECD	AUD-ECD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD ECDOWN	AUD-ECDOWN-A	UNIX RTR R1.5 only
AUD ECDOWN	AUD-ECDOWN-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 1	AUD-FMGR1-A	UNIX RTR R1.5 only
AUD FMGR 1	AUD-FMGR1-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 2	AUD-FMGR2-A	UNIX RTR R1.5 only
AUD FMGR 2	AUD-FMGR2-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 3	AUD-FMGR3-A	UNIX RTR R1.5 only
AUD FMGR 3	AUD-FMGR3-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 4	AUD-FMGR4-A	UNIX RTR R1.5 only
AUD FMGR 4	AUD-FMGR4-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 5	AUD-FMGR5-A	UNIX RTR R1.5 only
AUD FMGR 5	AUD-FMGR5-B	UNIX RTR R6.4 only
AUD FMGR 5	AUD-FMGR5-C	UNIX RTR R21.3, R21.11, R21.15 and later
AUD FMGR 6	AUD-FMGR6-A	UNIX RTR R1.5 only
AUD FMGR 6	AUD-FMGR6-B	UNIX RTR R6.4, R21.11, R21.15 thru R21.27
AUD FMGR 6	AUD-FMGR6-C	UNIX RTR R21.3, R21.29 and later
AUD FMGR 7	AUD-FMGR7-A	UNIX RTR R1.5 only
AUD FMGR 7	AUD-FMGR7-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
AUD FMGR 8	AUD-FMGR8-A	UNIX RTR R1.5 only
AUD FMGR 8	AUD-FMGR8-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR 9	AUD-FMGR9-A	UNIX RTR R1.5 only
AUD FMGR 9	AUD-FMGR9-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD FSBLK	AUD-FSBLK-A	UNIX RTR R1.5 only
AUD FSBLK	AUD-FSBLK-B	UNIX RTR R6.4 only
AUD FSBLK	AUD-FSBLK-C	UNIX RTR R21.3 and R21.11
AUD FSBLK	AUD-FSBLK-D	UNIX RTR R21.15 and later
AUD FSCMPT	AUD-FSCMPT-A	UNIX RTR R1.5 only
AUD FSCMPT	AUD-FSCMPT-B	UNIX RTR R6.4 only
AUD FSCMPT	AUD-FSCMPT-C	UNIX RTR R21.3 and R21.11
AUD FSCMPT	AUD-FSCMPT-D	UNIX RTR R21.15 and later
AUD FSLINK	AUD-FSLINK-A	UNIX RTR R1.5 only
AUD FSLINK	AUD-FSLINK-B	UNIX RTR R6.4 only
AUD FSLINK	AUD-FSLINK-C	UNIX RTR R21.3 and R21.11
AUD FSLINK	AUD-FSLINK-D	UNIX RTR R21.15 and later
AUD MMGR	AUD-MMGR-A	UNIX RTR R1.5 only
AUD MMGR	AUD-MMGR-B	UNIX RTR R6.4 only
AUD MMGR	AUD-MMGR-C	UNIX RTR R21.3, R21.11, R21.15 and later
AUD MSGBUF	AUD-MSGBUF-A	UNIX RTR R1.5 only
AUD MSGBUF	AUD-MSGBUF-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
AUD PMS	AUD-PMS-A	UNIX RTR R1.5 only
AUD PMS	AUD-PMS-B	UNIX RTR R6.4, R21.11, R21.15 and R21.17
AUD PMS	AUD-PMS-C	UNIX RTR R21.3, R21.19 and later
AUD PROAD	AUD-PROAD-A	UNIX RTR R1.5 only
AUD PROAD	AUD-PROAD-B	UNIX RTR R6.4 only
AUD PROAD	AUD-PROAD-C	UNIX RTR R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
CFR DUPLEXDISKS	CFR-DUPLEXDISKS	UNIX R21.27 and later
CLR EMERDMP	CLR-EMERDMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR FILESYS DIR	CLR-F,DIR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR FILESYS FILE	CLR-F,FILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR FANALM	CLR-FANALM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR IMCAT	CLR-IMCAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR IODRV	CLR-IODRV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR IOMEM	CLR-IOMEM	UNIX RTR R21.27 and later
CLR MHD MAEC	CLR-M,MAEC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
CLR PTN	CLR-PTN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR UMEM	CLR-UMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR UTIL	CLR-UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CLR UTILFLAG	CLR-UTILFLAG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CMPR DISK CORE	CMPR-D,CORE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CMPR MHD	CMPR-MHD-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
CMPR MHD	CMPR-MHD-B	UNIX RTR R21.11 and R21.15
COPY ACTDISK	COPY-ACTDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY ADDR	COPY-ADDR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY BKDISK	COPY-BKDISK-A	UNIX RTR R1.5 and R6.4
COPY BKDISK	COPY-BKDISK-B	UNIX RTR R21.3 and R21.11
COPY BKDISK	COPY-BKDISK-C	UNIX RTR R21.15 and later
COPY BKTAPE	COPY-BKTAPE	UNIX RTR R21.15 and later

Message Name	Message ID	Generic
COPY DIFF SRC	COPY-DIFF,SRC-A	UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
COPY DIFF SRC	COPY-DIFF,SRC-B	UNIX RTR R21.11 and R21.15
COPY FILESYS CFILE	COPY-F,CFILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY FILESYS FILE	COPY-F,FILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY OOSDISK	COPY-OOSDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY PTN ALL	COPY-P,ALL-A	UNIX RTR R1.5, R6.4, R21.3 and R21.11
COPY PTN ALL	COPY-P,ALL-B	UNIX RTR R21.15 and later
COPY PID	COPY-PID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY REG	COPY-REG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY SPDISK	COPY-SPDISK-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
COPY SPDISK	COPY-SPDISK-B	UNIX RTR R21.27 and later
COPY TAPE EMERDMP	COPY-T,EMERDMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE IN	COPY-T,IN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE OUT	COPY-T,OUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE TEST	COPY-T,TEST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY TAPE TOP	COPY-T,TOP	UNIX RTR R21.3, R21.11, R21.15 and later
COPY UID	COPY-UID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
COPY UVAR	COPY-UVAR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CU RECOVERY	CU-RECOVERY	UNIX RTR R21.11, R21.15 and later
DEL LOG	DEL-LOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
DGN AUDIT	DGN-AUDIT	UNIX RTR R1.5 only
DGN CU	DGN-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN CU MASC	DGN-CU,MASC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN DCI	DGN-DCI	UNIX RTR R21.3, R21.11, R21.15 and later
DGN DFC	DGN-DFC-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
DGN DFC	DGN-DFC-B	UNIX RTR R21.27 and later
DGN DUIC	DGN-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN HSDC	DGN-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN IOP	DGN-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN MHD	DGN-MHD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN MT	DGN-MT	UNIX RTR R21.3, R21.11, R21.15 and later
DGN MTC	DGN-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN MTTYC	DGN-MTTYC-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
DGN MTTYC	DGN-MTTYC-B	UNIX RTR R21.27 and later
DGN SCSDC	DGN-SDSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN SDLC	DGN-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN TTYC	DGN-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP ADDR	DUMP-ADDR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP BKTAPE	DUMP-BKTAPE	UNIX RTR R21.15 and later
DUMP CACHE	DUMP-CACHE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP FILE ALL	DUMP-F,ALL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
DUMP FILE FORMAT	DUMP-F,FORMAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP FILE PARTL	DUMP-F,PARTL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP KERN	DUMP-KERN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP MHD BLOCK	DUMP-MHD,BLK-A	UNIX RTR R1.5 only
DUMP MHD BLOCK	DUMP-MHD,BLK-B	UNIX RTR R6.4 only
DUMP MHD BLOCK	DUMP-MHD,BLK-C	UNIX RTR R21.3, R21.11, R21.15 and later
DUMP MHD DEFECT	DUMP-MHD,DEF-A	UNIX RTR R1.5 only
DUMP MHD DEFECT	DUMP-MHD,DEF-B	UNIX RTR R6.4 only
DUMP MHD DEFECT	DUMP-MHD,DEF-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.21
DUMP MHD DEFECT	DUMP-MHD,DEF-D	UNIX RTR R21.23 and later
DUMP MHD VTOC	DUMP-MHD,VTO-A	UNIX RTR R1.5 only
DUMP MHD VTOC	DUMP-MHD,VTO-B	UNIX RTR R6.4 only
DUMP MHD VTOC	DUMP-MHD,VTO-C	UNIX RTR R21.3, R21.11, R21.15 and later
DUMP PID	DUMP-PID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP PMEM	DUMP-PMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP REG	DUMP-REG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP UID	DUMP-UID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP UVAR	DUMP-UVAR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX CU	EX-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX DCI	EX-DCI	UNIX RTR R21.3, R21.15 and later
EX DFC	EX-DFC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX DUIC	EX-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX HSDC	EX-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
EX IOP	EX-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX LDPARM	EX LDPARM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX LOOP	EX-LOOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX MHD	EX-MHD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX MT	EX-MT	UNIX RTR R21.3, R21.11, R21.15 and later
EX MTC	EX-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX MTTYC	EX-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX PAUSE	EX-PAUSE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX SCSDC	EX-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX SDLC	EX-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
EX STEP	EX-STEP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX STOP	EX-STOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EX TTYC	EX-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EXC ENVIR PROC	EXC-E,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EXC ENVIR UPROC	EXC-E,UPROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
EXC OFLBOOT	EXC-OFLBOOT-A	UNIX RTR R21.3 and R21.11
EXC OFLBOOT	EXC-OFLBOOT-B	UNIX RTR R21.15 and later
IN FILE APND	IN-F,APND	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN FILE DEL	IN-F,DEL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN FILE REPL	IN-F,REPL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN FILESYS DIR	IN-FI,DIR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
IN REMOTE	IN-REM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE ERROR	IN-REM,ERROR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE INITIALIZED	IN-REM,INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE STARTED	IN-REM,START	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE STOPPED	IN-REM,STOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN XFER	IN-XFER	UNIX RTR R21.11, R21.15 and later
INH AUD	INH-AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH CONFLOG	INH-CONFLOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH DMQ	INH-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH EAIINT	INH-EAIINT	UNIX RTR R21.3, R21.11, R21.15 and later
INH ERRCHK	INH-ERRCHK-A	UNIX RTR R1.5 only
INH ERRCHK	INH-ERRCHK-B	UNIX RTR R6.4 only
INH ERRCHK	INH-ERRCHK-C	UNIX RTR R21.3, R21.11, R21.15 and later
INH ERRINT	INH-ERRINT-A	UNIX RTR R1.5 only
INH ERRINT	INH-ERRINT-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH ERRSRC	INH-ERRSRC-A	UNIX RTR R1.5 only
INH ERRSRC	INH-ERRSRC-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH FILESYS UMOUNT	INH-F,UMOUNT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH HDWCHK	INH-HDWCHK-A	UNIX RTR R1.5 only
INH HDWCHK	INH-HDWCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH REX	INH-REX	UNIX RTR R21.3, R21.11, R21.15 and later
INH SCSD	INH-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
INH SFTCHK	INH-SFTCHK-A	UNIX RTR R1.5 only
INH SFTCHK	INH-SFTCHK-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH UMEM	INH-UMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH UTIL	INH-UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH UTILFLAG	INH-UTILFLAG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INIT MHD	INIT-MHD-A	UNIX RTR R1.5 only
INIT MHD	INIT-MHD-B	UNIX RTR R6.4 only
INIT MHD	INIT-MHD-C	UNIX RTR R21.3, R21.11, R21.15 and later
INIT ULARP	INIT-ULARP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INIT UMEM	INIT-UMEM-A	UNIX RTR R1.5 only
INIT UMEM	INIT-UMEM-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
LOAD ADDR	LOAD-ADDR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
LOAD DFC PUMP	LOAD-DFC,PUMP-A	UNIX RTR R6.4 only
LOAD DFC PUMP	LOAD-DFC,PUMP-B	UNIX RTR R21.3 and R21.11
LOAD DFC PUMP	LOAD-DFC,PUMP-C	UNIX RTR R21.15 and later
LOAD DFC RAM	LOAD-DFC,RAM-A	UNIX RTR R6.4 only
LOAD DFC RAM	LOAD-DFC,RAM-B	UNIX RTR R21.3, R21.11, R21.15, and later
LOAD MHD	LOAD-MHD-A	UNIX RTR R1.5 and R6.4
LOAD MHD	LOAD-MHD-B	UNIX RTR R21.3 and R21.11
LOAD MHD	LOAD-MHD-C	UNIX RTR R21.15 and later
LOAD MHD DEFECT	LOAD-MHD,DEF-A	UNIX RTR R1.5 only
LOAD MHD DEFECT	LOAD-MHD,DEF-B	UNIX RTR R6.4 only
LOAD MHD DEFECT	LOAD-MHD,DEF-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.21
LOAD MHD DEFECT	LOAD-MHD,DEF-D	UNIX RTR R21.23 only
LOAD MHD DEFECT	LOAD-MHD,DEF-E	UNIX RTR R21.25 and later
LOAD MHD FIRMWARE	LOAD-MHD,FIRM-A	UNIX RTR R6.4 only
LOAD MHD FIRMWARE	LOAD-MHD,FIRM-B	UNIX RTR R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
LOAD PMEM	LOAD-PMEM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
LOAD REG	LOAD-REG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
LOAD UVAR	LOAD-UVAR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ABD	OP-ABD	UNIX RTR R21.27 and later
OP ACT	OP-ACT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP AUD	OP-AUD-A	UNIX RTR R1.5 only
OP AUD	OP-AUD-B	UNIX RTR R6.4 only
OP AUD	OP-AUD-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP AUDERR	OP-AUDERR-A	UNIX RTR R1.5 only
OP AUDERR	OP-AUDERR-B	UNIX RTR R6.4 only
OP AUDERR	OP-AUDERR-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP CFGSTAT	OP-CFGSTAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP CLK	OP-CLK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP CONTROLLER INFO	OP-CONTROLLER,INFO	UNIX RTR R21.37 and later
OP DEVICE INFO	OP-DEVICE,INFO	UNIX RTR R21.37 and later
OP DFC INFO	OP-DFC,INFO-A	UNIX RTR R1.5 only
OP DFC INFO	OP-DFC,INFO-B	UNIX RTR R6.4 only
OP DFC INFO	OP-DFC,INFO-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.25
OP DFC INFO	OP-DFC-INFO-D	UNIX RTR R21.27 and later
OP DFCELOG	OP-DFCELOG-A	UNIX RTR R1.5 only
OP DFCELOG	OP-DFCELOG-B	UNIX RTR R6.4 only
OP DFCELOG	OP-DFCELOG-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP DMQ	OP-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP EMERSTAT	OP-EMERSTAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
OP ERRCHK	OP-ERRCHK-A	UNIX RTR R1.5 and R6.4
OP ERRCHK	OP-ERRCHK-B	UNIX RTR R21.3, R21.11, R21.15 and later
OP FNAME	OP-FNAME-A	UNIX RTR R1.5 and R6.4
OP FNAME	OP-FNAME-B	UNIX RTR R21.3, R21.11, R21.15 and later
OP GEN READLOG	OP-G,READLOG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP GROW	OP-GROW	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP INIT	OP-INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP IODRV	OP-IODRV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP IOP INFO	OP-IOP,INFO	UNIX RTR R21.27 and later
OP LOG	OP-LOG-A	UNIX RTR R1.5 and R6.4
OP LOG	OP-LOG-B	UNIX RTR R21.3, R21.,11, R21.15 and later
OP MEMERRS	OP-MEMERRS-A	UNIX RTR R1.5 only
OP MEMERRS	OP-MEMERRS-B	UNIX RTR R6.4 only
OP MEMERRS	OP-MEMERRS-C	UNIX RTR R21.3, R21.11, R21.15 and later
OP MHD INFO	OP-MHD,INFO-A	UNIX RTR R1.5 only
OP MHD INFO	OP-MHD,INFO-B	UNIX RTR R6.4 only
OP MHD INFO	OP-MHD,INFO-C	UNIX RTR R21.3, R21.11, R21.15 thru R21.25
OP MHD INFO	OP-MHD,INFO-D	UNIX RTR R21.27 and later
OP MT INFO	OP-MT,INFO	UNIX RTR R21.3, R21.11, R21.15 and later
OP OFL	OP-OFL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP OMDB	OP-OMDB-A	UNIX RTR R1.5, R6.4 and R21.3
OP OMDB	OP-OMDB-B	UNIX RTR R21.11, R21.15 and later

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Message Name	Message ID	Generic
OP OOS	OP-OOS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP PMCR ERROR	OP-PMCR-A	UNIX RTR R1.5, R6.4 and R21.3
OP PMCR ERROR	OP-PMCR-B	UNIX RTR R21.11, R21.15 and later
OP REXINH	OP-REXINH-A	UNIX RTR R1.5 and R6.4
OP REXINH	OP-REXINH-B	UNIX RTR R21.3, R21.11, R21.15 and later
OP SCSD	OP-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS DISKUSE	OP-ST,DISKUSE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS FILESYS	OP-ST,FILESYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS FREEDISK	OP-ST,FRDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP TATUS LISTDIR	OP-ST,LSTDIR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS PORTS	OP-ST,PORTS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS PROCESS	OP-ST,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STATUS SUM	OP-ST,SUM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP STBY	OP-STBY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ULARP COMMAND	OP-ULARP,COM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ULARP EXECSEQ	OP-ULARP,EXEC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP ULARP PROCESS	OP-ULARP,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP UMEM	OP-UMEM-A	UNIX RTR R1.5 only
OP UMEM	OP-UMEM-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
OP UNAV	OP-UNAV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP UNEQIP	OP-UNEQIP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
OP UTIL	OP-UTIL-A	UNIX RTR R1.5 only
OP UTIL	OP-UTIL-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
OP VERSION	OP-VERSION	UNIX RTR R21.11, R21.15 and later
ORD SCSD	ORD-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
PRM 0	PRM-0	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTECD VFY	RCV-DMTECD,VFY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTSG VFY	RCV-DMTSG,VFY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU	RCV-MENU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCVRY ALARM	RCVRY-ALARM	UNIX RTR R21.11, R21.15 and later
RCVRY CU	RCVRY-CU	UNIX RTR R1.5 only
RCVRY DUI	RCVRY-DUI	UNIX RTR R1.5 only
RCVRY DUIC	RCVRY-DUIC	UNIX RTR R1.5 only
RCVRY HSD	RCVRY-HSD	UNIX RTR R1.5 only
RCVRY HSDC	RCVRY-HSDC	UNIX RTR R1.5 only
RCVRY IOP	RCVRY-IOP	UNIX RTR R1.5 only
RCVRY MT	RCVRY-MT	UNIX RTR R1.5 only
RCVRY MTC	RCVRY-MTC	UNIX RTR R1.5 only
RCVRY MTTY	RCVRY-MTTY	UNIX RTR R1.5 only
RCVRY MTTYC	RCVRY-MTTYC	UNIX RTR R1.5 only
RCVRY ROP	RCVRY-ROP	UNIX RTR R1.5 only
RCVRY SCC	RCVRY-SCC	UNIX RTR R1.5 only
RCVRY SCSDC	RCVRY-SCSDC	UNIX RTR R1.5 only
RCVRY SDL	RCVRY-SDL	UNIX RTR R1.5 only
RCVRY SDLC	RCVRY-SDLC	UNIX RTR R1.5 only
RCVRY TTY	RCVRY-TTY	UNIX RTR R1.5 only
RCVRY TTYC	RCVRY-TTYC	UNIX RTR R1.5 only
REPT ADP	REPT-ADP-A	UNIX RTR R1.5 only
REPT ADP	REPT-ADP-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT ADP AUTORST	REPT-ADP,AUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT ADP INHIBIT ACTIVE	REPT-ADP,INHIBIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ADP INTERFACE ERROR	REPT-ADP,INTER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ADPAB	REPT-ADPAB-A	UNIX RTR R1.5 only
REPT ADPAB	REPT-ADPAB-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT ANALY TLP	REPT-ANALY,TLP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT AUDSTAT	REPT-AUDSTAT-A	UNIX RTR R1.5 only
REPT AUDSTAT	REPT-AUDSTAT-B	UNIX RTR R6.4 only
REPT AUDSTAT	REPT-AUDSTAT-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT AUTORST FAILURE	REPT-AUTORST-A	UNIX RTR R1.5 only
REPT AUTORST FAILURE	REPT-AUTORST-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT BAD ALIGN	REPT-BAD,ALIGN	UNIX RTR R1.5 only
REPT BAD OST	REPT-BAD,OST	UNIX RTR R1.5 only
REPT BAD PRTY DIO	REPT-BAD,PRTY-DIO	UNIX RTR R1.5 only
REPT BAD PRTY DMA	REPT-BAD,PRTY-DMA	UNIX RTR R1.5 only
REPT BDG	REPT-BDG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT BWMINT	REPT-BWMINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CCIO COMMAND	REPT-CCIO,CMD	UNIX RTR R1.5 only
REPT CCIO DATA PARITY	REPT-CCIO,DATA	UNIX RTR R1.5 only
REPT CD CIA	REPT-CD,CIA0	UNIX RTR R21.3, R21.11, R21.15 and later
REPT C/D DLGGETTY	REPT-CD,DLGGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT C/D ERROR	REPT-CD,ERROR-A	UNIX RTR R1.5 only
REPT C/D ERROR	REPT-CD,ERROR-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT C/D GETTY	REPT-CD,GETTY-A	UNIX RTR R1.5 only
REPT C/D GETTY	REPT-CD,GETTY-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT C/D POKER	REPT-CD,POKER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT C/D STARTER	REPT-CD,STARTER-A	UNIX RTR R1.5 only
REPT C/D STARTER	REPT-CD,STARTER-B	UNIX RTR R6.4, R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT C/D STARTER	REPT-CD,STARTER-C	UNIX RTR R21.3 only
REPT CFT LIB	REPT-CFT,LIB-A	UNIX RTR R1.5 and R6.4
REPT CFT LIB	REPT-CFT,LIB-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT CFTSHL	REPT-CFTSHL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CONFIG FAULT	REPT-CONFIG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CONFIG RECONFIGURATION	REPT-CONFIG,REC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
REPT CSOP	REPT-CSOP-A	UNIX RTR R1.5 only
REPT CSOP	REPT-CSOP-B	UNIX RTR R6.4 only
REPT CSOP	REPT-CSOP-C	UNIX RTR R21.3 only
REPT CSOP	REPT-CSOP-D	UNIX RTR R21.11, R21.15 and later
REPT CSOP FORMATTING	REPT-CSOP,FORM-A	UNIX RTR R1.5 and R6.4
REPT CSOP FORMATTING	REPT-CSOP,FORM-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT CSOP IN	REPT-CSOP,IN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CSOP PRIM	REPT-CSOP,PRIM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT CU	REPT-CU-A	UNIX RTR R1.5, R6.4, R21.3, R21.11 and R21.15
REPT CU	REPT-CU-B	UNIX RTR R21.17 and later
REPT CURSTRMV FAULT	REPT-CURSTRMV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DCI	REPT-DCI	UNIX RTR R21.3, R21.11, R21.15 thru R21.30
REPT DCI	REPT-DCI	UNIX RTR R21.31 and later
REPT DCIDIP	REPT-DCIDIP	UNIX RTR R21.17 and later
REPT DEGROWTH	REPT-DEGROWTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DFC	REPT-DFC-A	UNIX RTR R1.5 only
REPT DFC	REPT-DFC-B	UNIX RTR R6.4 only.
REPT DFC	REPT-DFC-C	UNIX RTR R21.3 only
REPT DFC	REPT-DFC-D	UNIX RTR R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT DFC PUMP	REPT-DFC,PUMP	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT DFCE	REPT-DFCE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DFCI	REPT-DFCI-A	UNIX RTR R1.5 only
REPT DFCI	REPT-DFCI-B	UNIX RTR R6.4 only
REPT DFCI	REPT-DFCI-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT DFRMVRST ERROR	REPT-DFRMVRST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DGN	REPT-DGN-A	UNIX RTR R1.5 and R6.4
REPT DGN	REPT-DGN-B	UNIX RTR R21.3 only
REPT DGN	REPT-DGN-C	UNIX RTR R21.11, R21.15 and later
REPT DGN AUDIT	REPT-DGN,AUDIT	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT DIAMON	REPT-DIAMON	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DIO ACK	REPT-DIO,ACK	UNIX RTR R1.5 only
REPT DIO READY	REPT-DIO,READY	UNIX RTR R1.5 only
REPT DIOP	REPT-DIOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DKDIP	REPT-DKDIP-A	UNIX RTR R1.5 only
REPT DKDIP	REPT-DKDIP-B	UNIX RTR R6.4 only
REPT DKDIP	REPT-DKDIP-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT DKDRV	REPT-DKDRV-A	UNIX RTR R1.5 only
REPT DKDRV	REPT-DKDRV-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT DLGGETTY	REPT-DLGGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DLGSHL	REPT-DLGSHL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DMA ADDR	REPT-DMA,ADDR	UNIX RTR R1.5 only
REPT DMA ASW	REPT-DMA,ASW	UNIX RTR R1.5 only
REPT DMA CHNL	REPT-DMA,CHNL	UNIX RTR R1.5 only

Message Name	Message ID	Generic
REPT DMA RAM	REPT-DMA,RAM	UNIX RTR R1.5 only
REPT DMA ROM	REPT-DMA,ROM	UNIX RTR R1.5 only
REPT DMQ	REPT-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DUI	REPT-DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT DUIC	REPT-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT EAI	REPT-EAI-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
REPT EAI	REPT-EAI-B	UNIX RTR R21.27 and later
REPT ECDMAN	REPT-ECDMAN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT EMERGENCY DUMP	REPT-EMER,DUMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ERRPORT	REPT-ERRPORT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ERSLOT	REPT-ERSLOT-A	UNIX RTR R6.4 only
REPT ERSLOT	REPT-ERSLOT-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT FAN	REPT-FAN-A	UNIX RTR R1.5 and R6.4
REPT FAN	REPT-FAN-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT FAN MULTI	REPT-FF,MULTI-A	UNIX RTR R1.5, R21.3, R21.11, R21.15 and later
REPT FAN MULTI	REPT-FF,MULTI-B	UNIX RTR R6.4 only
REPT FAN SINGLE	REPT-FF,SING-A	UNIX RTR R1.5, R21.3, R21.11, R21.15 and later
REPT FAN SINGLE	REPT-FF,SING-B	UNIX RTR R6.4 only
REPT FIELD MAINT	REPT-FIELD,MAINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FILESYS	REPT-FILESYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR	REPT-FMGR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR DSW	REPT-FMGR,DSW	UNIX RTR R21.3, R21.11, R21.15 and later
REPT FMGR ECD	REPT-FMGR,ECD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT FMGR FILSYS	REPT-FMGR,FILSYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR MOUNT	REPT-FMGR,MOUNT	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR NONTASK FAULT	REPT-FMGR,NF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR TABLE OVERLOAD	REPT-FMGR,OVLD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR PROCESS	REPT-FMGR,PROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR TASK STATUS	REPT-FMGR,TS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR UMNTFLD	REPT-FMGR-UMNTFLD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR UNMNT	REPT-FMGR,UNMNT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FMGR WNDW	REPT-FMGR,WNDW	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT FUSE ALARM	REPT-FUSE,ALM	UNIX RTR R21.3, R21.11, R21.15 and later
REPT GRASP	REPT-GRASP-A	UNIX RTR R1.5 only
REPT GRASP	REPT-GRASP-B	UNIX RTR R6.4 only
REPT GRASP	REPT-GRASP-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT GROWTH	REPT-GROWTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT HSD	REPT-HSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT HSDC	REPT-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ILL INSTRCT	REPT-ILL,INSTRCT	UNIX RTR R1.5 only
REPT ILL OPRND	REPT-ILL,OPRND	UNIX RTR R1.5 only
REPT ILL STACK	REPT-ILL,STACK	UNIX RTR R1.5 only
REPT INHADM	REPT-INHADM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT INHIBIT	REPT-INHIBIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT INIT	REPT-INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT INVLD ER INT	REPT-INVLD,ER-INT	UNIX RTR R1.5 only
REPT INVLD ER NUM	REPT-INVLD,ER-NUM	UNIX RTR R1.5 only

Message Name	Message ID	Generic
REPT INVLD MNTC	REPT-INVLD,MNTC	UNIX RTR R1.5 only
REPT IO CHNL ERR	REPT-IO,CHNL-ERR	UNIX RTR R1.5 only
REPT IODRV ATTRIBUTE	REPT-IODRV,AT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IODRV	REPT-IODRV,ERR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IODRV	REPT-IODRV,ERROR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IODRV	REPT-IODRV,FAULT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IOP	REPT-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT IORMVRST ERROR	REPT-IORMVRST	UNIX RTR R1.5, R6.4, R21.3, and later
REPT KAUDPRC	REPT-KAUDPRC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT KLLA	REPT-KLLA	UNIX RTR R1.5 only
REPT LIBC ARGU	REPT-LIBC,ARGU	UNIX RTR R21.3, R21.11, R21.15 and later
REPT LIBC ER STRT	REPT-LIBC,ER-STRT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT LIBC EX	REPT-LIBC,EX	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT LIBC FAULT	REPT-LIBC,FL-A	UNIX RTR R1.5 and R6.4
REPT LIBC FAULT	REPT-LIBC,FL-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT LIBC FORK	REPT-LIBC,FO	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT LIBC PROGRAM	REPT-LIBC,PROGRAM	UNIX RTR R21.3, R21.11, R21.15 and later
REPT LIBC SAVE	REPT-LIBC,SAVE	UNIX RTR R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT LIBC START	REPT-LIBC,START	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MAINTENANCE REQUESTS	REPT-MAINT,REQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MAPFILE	REPT-MAPFILE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MAXINTVL	REPT-MAXINTVL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MBD	REPT-MBD	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MEMORY PRTY	REPT-MEMORY,PRTY	UNIX RTR R1.5 only
REPT MHD	REPT-MHD-A	UNIX RTR R1.5 only
REPT MHD	REPT-MHD-B	UNIX RTR R6.4 only
REPT MHD	REPT-MHD-C	UNIX RTR R21.3, R21.11, R21.15 and later
REPT MIRA	REPT-MIRA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MKDSK	REPT-MKDSK	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR001	REPT-MMGR001	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR002	REPT-MMGR002	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR003	REPT-MMGR003-A	UNIX RTR R1.5 only
REPT MMGR003	REPT-MMGR003-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR004	REPT-MMGR004	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MMGR005	REPT-MMGR005	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT MOP	REPT-MOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MT	REPT-MT-A	UNIX RTR R1.5 and R6.4
REPT MT	REPT-MT-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT MTC	REPT-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT MTTY	REPT-MTTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MTTYC	REPT-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT MY STORE A	REPT-MY,STORE-A	UNIX RTR R1.5 only
REPT MY STORE B	REPT-MY,STORE-B	UNIX RTR R1.5 only
REPT MY STORE C	REPT-MY,STORE-C	UNIX RTR R1.5 and R6.4
REPT NONCORR PRTY	REPT-NONCORR,PRTY	UNIX RTR R1.5 only
REPT OFFLINE	REPT-OFFLINE	UNIX RTR R21.3, R21.11, R21.15 thru R21.33
REPT OFFLINE	REPT-OFFLINE	UNIX RTR R21.35 and later
REPT OFLBOOT	REPT-OFLBOOT	UNIX RTR R21.3, R21.11, R21.15 and later
REPT OLBCONFIG FAULT	REPT-OLBCONFIG	UNIX RTR R21.3, R21.11, R21.15 and later
REPT OUT OF RANGE MEM	REPT-OORMR	UNIX RTR R1.5 only
REPT OUT OF RANGE MEM OTHER	REPT-OORMR,OTHR	UNIX RTR R1.5 only
REPT OP PMCR	REPT-OP,PMCR-A	UNIX RTR R1.5 and R6.4
REPT OP PMCR	REPT-OP,PMCR-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT OP PMCR ERROR	REPT-OP,PMER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT OTHER STORE HARDWARE	REPT-OTHR,SHE	UNIX RTR R1.5 and R6.4
REPT OTHER STORE READ	REPT-OTHR,SRDPE	UNIX RTR R1.5 and R6.4
REPT OTHER STORE REFRESH	REPT-OTHR,SRFPE	UNIX RTR R1.5 and R6.4
REPT OTHER STORE TIME OUT	REPT-OTHR,STOE	UNIX RTR R1.5 only
REPT OUTPUT	REPT-OUTPUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PASSWORD	REPT-PASSWORD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PCPAUD	REPT-PCPAUD-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
REPT PCPAUD	REPT-PCPAUD-B	UNIX RTR R21.27 only
REPT PCPAUD	REPT-PCPAUD-C	UNIX RTR R21.29 and later
REPT PCPMD FAULT	REPT-PCPMD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PHASE	REPT-PHASE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PINV	REPT-PINV	UNIX RTR R1.5 only

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Message Name	Message ID	Generic
REPT PLDMON ERROR	REPT-PLDMON,ERR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PMDBCOPY	REPT-PMDBCOPY-A	UNIX RTR R1.5, R6.4, R21.11, R21.15 thru R21.17
REPT PMDBCOPY	REPT-PMDBCOPY-B	UNIX RTR R21.3, R21.19 and later
REPT PMGR ERROR	REPT-PMGR,ERR-A	UNIX RTR R1.5 only
REPT PMGR ERROR	REPT-PMGR,ERR-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT PMSLOT	REPT-PMSLOT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT POWER	REPT-POWER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PREPHASE	REPT-PREPHASE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT PRIV INSTR VIOL	REPT-PRIV,INSTRCT	UNIX RTR R1.5 only
REPT PROTECTION VIOLATION	REPT-PROTECT,VLTN	UNIX RTR R1.5 only
REPT PARITY DIVERT	REPT-PRTY-DVRT	UNIX RTR R1.5 only
REPT PSM	REPT-PSM-A	UNIX RTR R1.5 and R6.4
REPT PSM	REPT-PSM-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT PWRFLTC	REPT-PWRFLTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY CU	REPT-RCVRY,CU	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY DUI	REPT-RCVRY,DUI	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY DUIC	REPT-RCVRY,DUIC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY HSD	REPT-RCVRY,HSD	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY HSDC	REPT-RCVRY,HSDC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY IOP	REPT-RCVRY,IOP	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY MT	REPT-RCVRY,MT	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY MTC	REPT-RCVRY,MTC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY MTTY	REPT-RCVRY,MTTY	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
REPT RCVRY MTTYC	REPT-RCVRY,MTTYC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY ROP	REPT-RCVRY,ROP	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SCC	REPT-RCVRY,SCC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SCSDC	REPT-RCVRY,SCSDC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SDL	REPT-RCVRY,SDL	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY SDLC	REPT-RCVRY,SDLC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY TTY	REPT-RCVRY,TTY	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT RCVRY TTYC	REPT-RCVRY,TTYC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT REX UNABLE	REPT-REX	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT REX SUMMARY	REPT-REX,SUM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RMF	REPT-RMF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RMTGETTY	REPT-RMTGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ROP	REPT-ROP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT RTS	REPT-RTS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SCC	REPT-SCC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
REPT SCSD	REPT-SCSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SCSDA	REPT-SCSDA-A	UNIX RTR R1.5 and R6.4
REPT SCSDA	REPT-SCSDA-B	UNIX RTR R21.3, R21.11, R21.15 and later
REPT SCSDC	REPT-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
REPT SDL	REPT-SDL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SDLC	REPT-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SDLRTC	REPT-SDLRTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SDLRTN	REPT-SDLRTN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SHLGETTY	REPT-SHLGETTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SIM	REPT-SIM	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT SIMCHK	REPT-SIMCHK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SIND	REPT-SIND	UNIX RTR R1.5 only
REPT SINV	REPT-SINV	UNIX RTR R1.5 only
REPT SIOF ERROR	REPT-SIOF,ERROR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SOP	REPT-SOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SPL SYNTAX ERROR	REPT-SPL,SYN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT SYSTEM	REPT-SYSTEM	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
REPT TIME	REPT-TIME	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT TLP ERROR	REPT-TLP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT 3/6 MAIN CHAN ADDR	REPT-TS,MCASE	UNIX RTR R1.5 only
REPT 3/6 MAIN CHAN IO RESP	REPT-TS,MCIORE	UNIX RTR R1.5 only
REPT TTY	REPT-TTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT TTYC	REPT-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT ULARP	REPT-ULARP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT UNIX INIT	REPT-UNIX,INIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
REPT VIRTUAL ADDR	REPT-VIRTUAL,ADDR	UNIX RTR R1.5 only

Message Name	Message ID	Generic
RFT FDUMP	RFT-FDUMP	UNIX RTR R1.5 only
RMV CU	RMV-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV DCI	RMV-DCI	UNIX RTR R21.3, R21.15 and later
RMV DFC	RMV-DFC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV DUI	RMV-DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV DUIC	RMV-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV HSD	RMV-HSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV HSDC	RMV-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV IOP	RMV-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV MHD	RMV-MHD-A	UNIX RTR R6.4, R21.3, R21.17 and later
RMV MHD	RMV-MHD-B	UNIX RTR R21.11 and R21.15
RMV MT	RMV-MT-A	UNIX RTR R1.5 and R6.4
RMV MT	RMV-MT-B	UNIX RTR R21.3, R21.11, R21.15 and later
RMV MTC	RMV-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV MTTY	RMV-MTTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV MTTYC	RMV-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV ROP	RMV-ROP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SBUS	RMV-SBUS-A	UNIX RTR R6.4 only
RMV SBUS	RMV-SBUS-B	UNIX RTR R21.3, R1.11, R21.15 and later
RMV SCC	RMV-SCC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SCSDC	RMV-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SDL	RMV-SDL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV SDLC	RMV-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
RMV TTY	RMV-TTY	UNIX RTR R1.5, R6.4, R21.3, and later
RMV TTYC	RMV-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST CU	RST-CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST DCI	RST-DCI	UNIX RTR R21.3, R21.15 and later
RST DFC	RST-DFC-A	UNIX RTR R1.5 and R6.4
RST DFC	RST-DFC-B	UNIX RTR R21.3, R21.11, R21.15 and later
RST DUI	RST-DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST DUIC	RST-DUIC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST HSD	RST-HSD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST HSDC	RST-HSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
RST IOP	RST-IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
RST MHD	RST-MHD-A	UNIX RTR R1.5 and R6.4
RST MHD	RST-MHD-B	UNIX RTR R21.3, R21.11, R21.15 and later
RST MT	RST-MT-A	UNIX RTR R1.5 and R6.4
RST MT	RST-MT-B	UNIX RTR R21.3, R21.11, R21.15 and later
RST MTC	RST-MTC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST MTTY	RST-MTTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST MTTYC	RST-MTTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST ROP	RST-ROP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST SBUS	RST-SBUS-A	UNIX RTR R6.4 only
RST SBUS	RST-SBUS-B	UNIX RTR R21.3, R21.11, R21.15, and later
RST SCC	RST-SCC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST SCSDC	RST-SCSDC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST SDL	RST-SDL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
RST SDLC	RST-SDLC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST TTY	RST-TTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST TTYC	RST-TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
SET CLK	SET-CLK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
SET IODRV	SET-IODRV	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
START OF	START-OF	UNIX RTR R21.11, R21.15 and later
STOP AUD	STOP-AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
STOP BKDISK	STOP-BKDISK-A	UNIX RTR R1.5, R6.4, R21.3 and R21.11
STOP BKDISK	STOP-BKDISK-B	UNIX RTR R21.15 and later
STOP DCI	STOP-DCI	UNIX RTR R21.3, R21.11, R21.15 and later
STOP DMQ	STOP-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP EXC ANY	STOP-EXC,ANY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP EXC USER	STOP-EXC,USER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP GEN	STOP-GEN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP OFLBOOT	STOP-OFLBOOT	UNIX RTR R21.3, R21.11, R21.15 and later
STP DMQ	STP-DMQ	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STP GEN	STP-GEN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
SW CU	SW-CU-A	UNIX RTR R1.5 only
SW CU	SW-CU-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
SW OFLBOOT	SW-OFLBOOT	UNIX RTR R21.3, R21.11, R21.15 and later
SW PORTSW	SW-PORTSW	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TST SPL	TST-SPL	UNIX RTR R1.5 only
UPD APPLY	UPD-APPLY	UNIX RTR R1.5, R6.4 and R21.3
UPD AUTOCHK REPORT	UPD-AUTOCHK	UNIX RTR R21.11, R21.15 and later
UPD AUTOMATION	UPD-AUTOMATION	UNIX RTR R21.11, R21.15 and later
UPD BKOUT	UPD-BKOUT	UNIX RTR R1.5, R6.4 and R21.3
UPD BLDBOOT	UPD-BLDBOOT	UNIX RTR R1.5, R6.4, R21.3 R21.11, R21.15 and later
UPD CLR	UPD-CLR	UNIX RTR R1.5, R6.4 and R21.3
UPD COMMAND	UPD-COMMAND	UNIX RTR R21.11, R21.15 and later
UPD CSCANS	UPD-CSCANS	UNIX RTR R21.11, R21.15 and later
UPD CSCANS REPORT	UPD-CSCANS-REPT	UNIX RTR R21.11, R21.11, R21.15 and later
UPD DFC FLASH	UPD-DFC,FLASH	UNIX RTR R21.11, R21.15 and later
UPD DISPLAY	UPD-DISPLAY-A	UNIX RTR R1.5, R6.4 and R21.3
UPD DISPLAY	UPD-DISPLAY-B	UNIX RTR R21.11, R21.15 and later
UPD FLASH	UPD-FLASH	UNIX RTR R21.11, R21.15 and later
UPD FTRC	UPD-FTRC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN APPLPROC	UPD-G,APPLPROC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN BACKOUT	UPD-G,BKOUT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN COMMIT	UPD-G,COMMIT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN CONTINUE	UPD-G,CONT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN ENTER	UPD-G,ENTER	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GEN PROCEED	UPD-G,PROCD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15and later
UPD GEN RESTORE	UPD-G,RESTR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

Message Name	Message ID	Generic
UPD ISG	UPD-ISG-A	UNIX RTR R1.5 and R6.4
UPD ISG	UPD-ISG-B	UNIX RTR R21.3, R21.11, R21.15 and later
UPD OMDB	UPD-OMDB-A	UNIX RTR R1.5, R6.4 and R21.3
UPD OMDB	UPD-OMDB-B	UNIX RTR R21.11, R21.15 and later
UPD OMIT	UPD-OMIT	UNIX RTR R1.5, R6.4 and R21.3
UPD PERM	UPD-PERM	UNIX RTR R1.5, R6.4 and R21.3
UPD PURGE	UPD-PURGE	UNIX RTR R1.5, R6.4 and R21.3
UPD RECLAIM	UPD-RECLAIM	UNIX RTR R1.5, R6.4 and R21.3
UPD REPT	UPD-REPT-A	UNIX RTR R1.5, R6.4 and R21.3
UPD REPT	UPD-REPT-B	UNIX RTR R21.11, R21.15 and later
UPD RESET	UPD-RESET	UNIX RTR R1.5, R6.4 and R21.3
UPD UPNM	UPD-UPNM	UNIX RTR R1.5, R6.4 and R21.3
UPD VERSION	UPD-VERSION	UNIX RTR R21.11, R21.15 and later
UPD VFY	UPD-VFY	UNIX RTR R1.5, R6.4 and R21.3
UPD VFYCON	UPD-VFYCON	UNIX RTR R21.11, R21.15 and later
VFY FILE	VFY-FILE-A	UNIX RTR R1.5 only
VFY FILE	VFY-FILE-B	UNIX RTR R6.4 only
VFY FILE	VFY-FILE-C	UNIX RTR R21.3, R21.11, R21.15 and later
VFY MHD	VFY-MHD-A	UNIX RTR R1.5 only
VFY MHD	VFY-MHD-B	UNIX RTR R6.4 only
VFY MHD	VFY-MHD-C	UNIX RTR R21.3, R21.11, R21.15 and later
VFY PAUTH	VFY-PAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
VFY PCGRP	VFY-PCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
VFY PROFL	VFY-PROFL	UNIX RTR R21.3, R21.11, R21.15 and later
VFY TAPE	VFY-TAPE-A	UNIX RTR R1.5, R6.4, R21.3 and R21.11
VFY TAPE	VFY-TAPE-B	UNIX RTR R21.15 and later

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Message Name	Message ID	Generic
VFY TAUTH	VFY-TAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
VFY TCGRP	VFY-TCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
WHEN COND	WHEN-COND	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
WHEN PID	WHEN-PID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
WHEN UID	WHEN-UID	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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ID . . . . . APP-ACK-DB
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

ACKNOWLEDGEMENT DATABASE APPENDIX

If an error is encountered with the Acknowledgement Database, an input message acknowledgement of the following format may appear.

NA BAD ACKDB <key *1*> <key *2*> <key *3*> <key *4*>

where key = a numerical value.

This appendix lists the text associated with each key.

To clear the condition where every command results in the NA BAD ACKDB acknowledgement, enter the CLR:ACKDB command followed by the 808 and 805 pokes on the 103 page.

The following list contains acknowledgements which print after an input indicator (; ! or ?) or delete command character (DEL or CAN) is entered. The ACKDB key assigned to each acknowledgement is also given.

KEY	TEXT
0	
1	OK
2	NG
3	RL
4	IP
5	PF
6	?V
7	?A
8	?I
9	?D
10	?E
11	?C
12	?P
13	?T
14	?O
15	?X

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KEY TEXT *(continued)*

KEY		TEXT
16		NA
17	-	FIRST PARAMETER BLOCK
18	-	SECOND PARAMETER BLOCK
19	-	THIRD PARAMETER BLOCK
20	-	DATA BLOCK
21	-	FIRST KEYWORD
22	-	SECOND KEYWORD
23	-	THIRD KEYWORD
24	-	FOURTH KEYWORD
25	-	OPTIONAL KEYWORD
26	-	PUNCTUATION ERROR
27	-	INVALID CHARACTER
28	-	MISSING KEYWORD
29	-	EXTRA KEYWORD
30	-	INVALID KEYWORD
31	-	INCONSISTENT KEYWORD
32	-	MISSING DATA
33	-	RANGE ERROR
34	-	INVALID DATA
35	-	INCONSISTENT DATA
36	-	INPUT ERROR
37	-	INVALID KEY
38	-	INVALID EQUIPMENT ID
39	-	BLOCK
40		REPT
41		CFTSHL
42		DLGSHL
43		ABORTED
44		NOT STARTED
45		COMPLETED
46		CONFLICT WITH CURRENT SYSTEM STATUS
47		RETRY LATER
48		INVALID ACTION FIELD
49		INVALID ID FIELD
50		INVALID DATA FIELD
51		UNABLE TO IDENTIFY ERROR
52		ERROR
53		ACKDB UNAVAILABLE
54		TERMINAL IN SERVICE
55		UNIDENTIFIED ERROR
56		HANGUP SIGNAL RECEIVED
57		UNABLE TO READ LINE
58		CANNOT CHANGE DIRECTORY TO

KEY TEXT *(continued)*

```
 59     CANNOT CREATE
 60     EOF ENCOUNTERED
 61     SETGID TO
 62     SETUID TO
 63     INTERRUPT RECEIVED
 64     IMPROPERLY TERMINATED INPUT
 65     INVALID ENVIRONMENT ARGUMENT PASSED TO ALTERNATE SHELL
 66     TERMINAL READING ERROR,
 67     UNABLE TO EXECUTE PROCESS
 68     UNABLE TO INITIATE COMMAND
 69     UNABLE TO MATCH COMMAND
 70     UNABLE TO FORK PROCESS
 71     CANNOT EXECUTE 'EXC:UCL' ITSELF
 72     TERMINAL SECURITY VIOLATION
 73     PREVIOUS COMMAND HAD A SYNTAX ERROR
 74     NO PREVIOUS COMMAND AVAILABLE
 75     BAD IM CATALOG
 76     CAPABILITY MODE
 77     OF .pname FILE
 78     INSTALL a .pname FILE IN DIRECTORY
 79     AND SHELL WILL RECOVER
 80     ALTERNATE SHELL
 81     FAILED
 82     ERRNO
 83     OF .pname FILE FOR ALTERNATE SHELL
 84     AND ENVIRONMENT ARGUMENT MISSING
 85     'EXC:UCL' INVALID IN PART MODE
 86     IMPROPERLY ESCAPED INPUT
 87     INSUFFICIENT AUTHORITY
 88     INVALID POSITIONAL PARAMETER
 89  -  KEYWORD
 90     TYPED OUT OF ORDER
 91  -  UNRECOGNIZABLE MESSAGE
 92     MISSING POSITIONAL PARAMETERS
 93     TOO MANY POSITIONAL PARAMETERS
 94     INCORRECT VALUE
 95     FOR POSITIONAL PARAMETERS
 96     NOT ENOUGH VALUES WERE TYPED FOR
 97     TOO MANY VALUES WERE TYPED FOR
 98     ARG
 99  -  ONLY ONE MAY BE USED
100     OF
101     OR
```

KEY TEXT *(continued)*

KEY		TEXT
102	-	DUPLICATED KEYWORD
103	-	INVALID VERB
104	-	MISSING VERB
105		TO EXECUTE COMMAND
106	-	INVALID TERMINATOR
107		FILE INACCESSIBLE
108		SEGMENT NAME CANNOT BE CLEARED
109		CANCELED
110		COMMAND CANCELED WHILE IN EXECUTION
111		Enter Password
112		Identification Terminated
113		UNABLE TO ACCESS AUTHORITY ADMINISTRATION
114		Illegal Password
115		Identification Aborted
116		UNABLE TO RETRIEVE AUTHORITY GROUPS
117		Terminal out of service. Restarting.
118	-	SEGCODE CANNOT BE DETERMINED
119		TOO MANY KEYS
120		SYNTAX ERROR
121		INVALID MESSAGE CLASS
122		INVALID ALARM
123		INVALID OMDB COPY
124	-	NON-EXISTENT PERSON IDENTITY
125	-	NON-EXISTENT TERMINAL IDENTITY
126	-	PASSWORD PREFIX NOT UNIQUE
127	-	PASSWORD PREFIX
128		AND/OR SUFFIX INCORRECT
129	-	COMMAND GROUP NOT ASSIGNED TO
130		THIS PERSON
131		THIS TERMINAL
132	-	TERMINAL ID ALREADY EXISTS
133	-	INVALID TERMINAL IDENTITY
134	-	PERSON IDENTITY NOT UNIQUE
135	-	MISSING PARAMETER(S)
136		ILLEGAL LENGTH
137	-	AUTHORITY ADMINISTRATION UNDER UPDATE
138	-	COMMAND GROUP ALREADY ASSIGNED TO
139	-	NO PERSON AUTHORITY PRESENT
140	-	NO TERMINAL AUTHORITY PRESENT
141	-	NO AUTHORITY GROUPS ASSIGNED TO
142	-	INSUFFICIENT RESOURCES
143	-	PASSWORD SUFFIX

ID . . . . . APP-AUD-APPA
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

Audit Parsing Errors Following ?D

Explanation	Reason for Failure
EXTRA KEYWORD	Too many keywords in data field.
INVALID CHARACTER	Member number given was not numeric.
INVALID DATA, ERROR 101	Cannot specify a range of member numbers.
INVALID DATA, ERROR 102	Only one member number allowed.
INVALID DATA, ERROR 103	The record for the specified audit name and member number is not found in the Equipment Configuration Database.
INVALID DATA, ERROR 105	An instance can be associated with one and only one audit name and member number.
INVALID DATA, ERROR 201	The data field must be empty.
INVALID DATA, ERROR 202	Only one instance can be specified.
INVALID DATA, ERROR 203	The record for the specified instance is not in the Equipment Configuration Database for the given audit name and member number.
INVALID DATA, ERROR 204	No additional data can be entered when ALL is used in an input or RUN is used with the OP:AUD input message.

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Audit Parsing Errors Following ?D *(continued)*

Explanation	Reason for Failure
INVALID DATA, ERROR 501	Data string to AUD command too long.
INVALID DATA, ERROR 502	Only one additional parameter string can be specified.
INVALID KEYWORD, ERROR 101	The audit name is too long.
INVALID KEYWORD, ERROR 102	No records for specified audit name were found in the Equipment Configuration Database.
INVALID KEYWORD, ERROR 201	The keyword is not INS.
INVALID KEYWORD, ERROR 501	Keyword is not PARAM.
MISSING DATA, ERROR 101	No member number was given.
MISSING DATA, ERROR 201	The INS keyword was entered but no instance name was specified.
MISSING DATA, ERROR 501	The PARAM keyword was entered but no additional parameter string was specified.
RANGE ERROR	Member number out of range.

ID . . . . . APP-AUD-APPB
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

Audit Parsing Errors Following `?I`

Explanation	Reason for Failure
`INCONSISTENT KEYWORDS`	Conflicting action items.
`INVALID DATA, ERROR 101`	Cannot specify a range.
`INVALID DATA, ERROR 102`	Only one member number allowed.
`INVALID DATA, ERROR 103`	The record for the specified audit name and member number is not found in the Equipment Configuration Database.
`INVALID DATA, ERROR 201`	The instance name is too long.
`INVALID DATA, ERROR 202`	Only one instance can be specified.
`INVALID DATA, ERROR 203`	The record for the specified instance is not in the Equipment Configuration Database for the given audit name and member number.
`INVALID DATA, ERROR 301`	First action option keyword must not have a keyword data field.
`INVALID DATA, ERROR 302`	Second action option keyword must not have a keyword data field.
`INVALID DATA, ERROR 401`	Keyword data cannot follow keyword `AUD`.
`EXTRA KEYWORD, ERROR 1`	Too many action options.

Audit Parsing Errors Following `?I` *(continued)*

Explanation	Reason for Failure
`EXTRA KEYWORD, ERROR 2`	The third identification field subfield must be empty.
`INVALID KEYWORD, ERROR 101`	The audit name is too long.
`INVALID KEYWORD, ERROR 201`	The keyword is not `INS`.
`INVALID KEYWORD, ERROR 202`	The keyword is invalid.
`INVALID KEYWORD, ERROR 203`	The keyword `RUN` is valid only with the `OP:AUD` input message.
`INVALID KEYWORD, ERROR 301`	The first action option is not valid.
`INVALID KEYWORD, ERROR 401`	The second action option is not valid.
`INVALID KEYWORD, ERROR 501`	ID keywords cannot follow `AUD` keyword.
`MISSING DATA, ERROR 101`	No member number was given.
`MISSING DATA, ERROR 201`	The `INS` keyword was entered but no instance name was specified.
`MISSING KEYWORD, ERROR 1`	No audit name was given.
`MISSING KEYWORD, ERROR 2`	The `INS` keyword (and its data) is missing.
`RANGE ERROR`	Member number out of range.

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ID . . . . . APP-AUD-APPC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

Audit Errors Resulting from a Conflict with System States

Explanation	Reason for Failure
ALREADY ALLOWED, ERROR 1	All member numbers associated with the audit name are already allowed. At least one member must not be currently allowed for the ALW:AUD input message to be executed.
ALREADY ALLOWED, ERROR 2	At least one of the specified members is already allowed. Use the OP:AUD input message to determine which members associated with the audit are currently allowed and which are not.
ALREADY ALLOWED, ERROR 3	The instance of the audit is already allowed.
ALREADY INHIBITED, ERROR 1	All the member numbers associated with the audit name are already inhibited. There must be at least one member number which is not inhibited.
ALREADY INHIBITED, ERROR 2	At least one of the specified members is already inhibited. Use the OP:AUD input message to determine which members associated with the audit are currently inhibited and which are not.
ALREADY INHIBITED, ERROR 3	The instance of the audit is already inhibited.
NO CHANGE	
NOT MANUAL AUDIT	
NOT RUNNING	The audit specified to be stopped is not running.

ID . . . . . APP-AUD-APPD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

Explanation for Retry Later Audit Errors

Explanation	Reason for Failure
ALREADY RUNNING	The requested audit is already running.
AUDIT BLOCKED	Audit blocked.
AUDIT PROCESS NOT FULLY CREATED	Audit has not been dispatched yet, retry STOP:AUD later.
DIFFERENT MEMBER OF THIS AUDIT RUNNING	Another audit with the same name is already running. Only uniquely-named audits are permitted to run at the same time. The OP:AUD input message may be used to obtain further information about currently-running audits which may be preventing the initiation of the requested audit.
ECD INTERFACE ERROR 1	Cannot attach the segments of the equipment configuration database to the command.
ECD INTERFACE ERROR 2	Cannot connect to the equipment configuration database.
ECD INTERFACE ERROR 3	Cannot read the equipment configuration database control record.
ECD INTERFACE ERROR 4	Cannot open a sequence for all audits with the specified name.
ECD INTERFACE ERROR 5	Error occurred while obtaining an audit record sequentially.

Explanation for Retry Later Audit Errors *(continued)*

Explanation	Reason for Failure
ECD INTERFACE ERROR 6	Error occurred while obtaining an audit record by key.
ECD INTERFACE ERROR 7	Error occurred while obtaining an instance record.
ECD INTERFACE ERROR 8	Cannot read SIM control record. If these equipment configuration database error conditions continue, obtain technical assistance.
MAXIMUM KERNEL AUDITS RUNNING	A kernel process audit is already running, and only one kernel process audit may run at one time. (It may have been initiated manually, or by a system process.) The OP:AUD input message may be used to obtain further information about currently-running audits which may be preventing the initiation of the requested audit.
MAXIMUM SUPERVISOR AUDITS RUNNING	The maximum number of supervisor process audits is already running. (They may have been initiated manually, or by a system process.) This number is controlled by a parameter in the SIMCNTL record in the equipment configuration database. The OP:AUD input message may be used to obtain further information about currently-running audits which may be preventing the initiation of the requested audit.
RUNNING AUDIT, ERROR 6	The requested audit is already running.

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Explanation for Retry Later Audit Errors *(continued)*

Explanation	Reason for Failure
RUNNING AUDIT, ERROR 7	A kernel process audit is already running, and only one kernel process audit may run at one time. (It may have been initiated manually, or by a system process.) The OP:AUD input message may be used to obtain further information about currently-running audits which may be preventing the initiation of the requested audit.
RUNNING AUDIT, ERROR 8	The maximum number of supervisor process audits is already running. (They may have been initiated manually, or by a system process.) This number is controlled by a parameter in the SIMCNTL record in the equipment configuration database. The OP:AUD input message may be used to obtain further information about currently-running audits which may be preventing the initiation of the requested audit.
RUNNING AUDIT, ERROR 11	Another audit with the same name is already running. Only uniquely-named audits are permitted to run at the same time. The OP:AUD input message may be used to obtain further information about currently-running audits which may be preventing the initiation of the requested audit.
SIM INTERFACE ERROR 3	Audit system initialization is in progress.
SIM INTERFACE ERROR 4	Audit system initialization failed.

Explanation for Retry Later Audit Errors *(continued)*

Explanation	Reason for Failure
SIM INTERFACE ERROR 5	SIM was unable to access an equipment configuration database record using a record identifier (RID) passed to it by the command program.
SIM INTERFACE ERROR 10	SIM failed to start the audit.
SIM INTERFACE ERROR 15	System integrity output formatter is dead.
SIM INTERFACE ERROR 19	An invalid RID was passed to SIM by the command program.
SIM INTERFACE ERROR 20	An invalid instance RID was passed to SIM by the command program.
SIM INTERFACE ERROR 23	Cannot stop a non-segmented audit.

ID . . . . . APP-AUTH-CODE
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

AUTHORITY CODE APPENDIX

The authority group code was implemented with the introduction of the Dialogue Shell in Release 1.5 (see *System Maintenance Manual*). This code is used by the Dialogue Shell to determine whether a person or terminal has the proper authority to execute the requested input command. Each input message in Release 1.5 will belong to only one authority group. The valid authority group code are as follows:

Group	Description
ALARM	Alarm Manipulation
AUDIT	Audits
AUTH	Command and Authority Administration
ECCR	Central Complex Data Retrieval
ECCSC	Central Complex Service Condition Modification
ECCT	Central Complex test and Diagnostic
FHADM	File Handling and Administration
MISC	Miscellaneous
PASS	Personal Password Modification
SERV	Service Observation
SFTMGT	Software Management
SFTUTIL	Software Utilities
SYSINH	System Inhibits
SYSINIT	System Initialization

The following is a cross reference of the input message and its associated authority group code.

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Message	Authority Code
ADD:PAUTH	AUTH
ADD:PCGRP	AUTH
ADD:TAUTH	AUTH
ADD:TCGRP	AUTH
ALW:AUD	AUDIT
ALW:CONFLOG	FHADM
ALW:DMQ	ECCT
ALW:ERRCHK	SYSINH
ALW:ERRINH	SYSINH
ALW:ERRSRC	SYSINH
ALW:FILESYS:ACCESS	FHADM
ALW:FILESYS:MOUNT	FHADM
ALW:FILESYS:OWNER	FHADM
ALW:HDWCHK	SYSINH
ALW:REX	ECCT
ALW:SCSD	ECCSC
ALW:SFTCHK	SYSINH
ALW:UMEM	SFTUTIL
ALW:UTIL	SFTUTIL
ALW:UTILFLAG	SFTUTIL
AUD:CUMEM	AUDIT
AUD:CUSTAT	AUDIT
AUD:ECD	AUDIT
AUD:ECDOWN	AUDIT
AUD:FMGR	AUDIT
AUD:FSBLK	AUDIT
AUD:FSLINK	AUDIT
AUD:MMGR	AUDIT
AUD:MSGBUF	AUDIT
AUD:PMS	AUDIT
AUD:PROAD	AUDIT
CHG:PAUTH	AUTH
CLR:EMERDMP	SYSINIT
CLR:FANALM	ALARM
CLR:FILESYS:DIR	FHADM
CLR:FILESYS:FILE	FHADM
CLR:IMCAT	SFTMGT
CLR:IODRV	ECCSC
CLR:PTN	FHADM
CLR:UMEM	SFTUTIL
CLR:UTIL	SFTUTIL
CLR:UTILFLAG	SFTUTIL

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Message	Authority Code *(continued)*
CMPR:DISK:CORE	FHADM
CMPR:MHD	FHADM
COPY:ACTDISK	FHADM
COPY:BKDISK:ACK	FHADM
COPY:BKDISK:START	FHADM
COPY:DIFF:MHD	FHADM
COPY:FILESYS:CFILE	FHADM
COPY:FILESYS:FILE	FHADM
COPY:OOSDISK	FHADM
COPY:PID	FHADM
COPY:PTN:ALL	FHADM
COPY:REG	FHADM
COPY:SPDISK	FHADM
COPY:TAPE:EMERDMP	FHADM
COPY:TAPE:IN	FHADM
COPY:TAPE:OUT	FHADM
COPY:TAPE:TEST	FHADM
COPY:UID	FHADM
COPY:UVAR	FHADM
DEL:LOG	FHADM
DEL:PAUTH	AUTH
DEL:PCGRP	AUTH
DEL:TAUTH	AUTH
DEL:TCGRP	AUTH
DGN:CU	ECCT
DGN:DFC	ECCT
DGN:DUIC	ECCT
DGN:HSDC	ECCT
DGN:IOP	ECCT
DGN:MHD	ECCT
DGN:MTC	ECCT
DGN:MTTYC	ECCT
DGN:SCSDC	ECCT
DGN:SDLC	ECCT
DGN:TTYC	ECCT
DUMP:CACHE	FHADM
DUMP:FILE:ALL	FHADM
DUMP:FILE:FORMAT	FHADM
DUMP:FILE:PARTL	FHADM
DUMP:KERN	SFTUTIL
DUMP:MHD:BLOCK	FHADM
DUMP:MHD:DEFECT	FHADM
DUMP:MHD:VTOC	FHADM

Message	Authority Code *(continued)*
DUMP:PID	SFTUTIL
DUMP:PMEM	SFTUTIL
DUMP:UID	SFTUTIL
EX:CU	ECCT
EX:DFC	ECCT
EX:DUIC	ECCT
EX:HSDC	ECCT
EX:IOP	ECCT
EX:MHD	ECCT
EX:MTC	ECCT
EX:MTTYC	ECCT
EX:SCSDC	ECCT
EX:SDLC	ECCT
EX:TTYC	ECCT
EXC:ENVIR:PROC	SFTMGT
EXC:ENVIR:UPROC	SFTMGT
IN:DTIME	SFTUTIL
IN:FILE:APND	FHADM
IN:FILE:DEL	FHADM
IN:FILE:REPL	FHADM
IN:FILESYS:DIR	FHADM
IN:REMOTE:REPT	SFTMGT
IN:REMOTE:START	SFTMGT
IN:REMOTE:STOP	SFTMGT
IN:STIME	SFTUTIL
INH:AUD	AUDIT
INH:CONFLOG	FHADM
INH:DMQ	ECCT
INH:ERRCHK	SYSINH
INH:ERRINT	SYSINH
INH:ERRSRC	SYSINH
INH:FILESYS:UMOUNT	FHADM
INH:HDWCHK	SYSINH
INH:REX	ECCT
INH:SCSD	ECCSC
INH:SFTCHK	SYSINH
INH:UMEM	SFTUTIL
INH:UTIL	SFTUTIL
INH:UTILFLAG	SFTUTIL
INIT:MHD	FHADM
INIT:UC	SFTUTIL
INIT:ULARP	SYSINIT
INIT:UMEM	SFTUTIL
LOAD:MHD	FHADM

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Message	Authority Code *(continued)*
LOAD:PMEM	SFTUTIL
LOAD:UVAR	SFTUTIL
OP:ACT	ECCR
OP:AUD	AUDIT
OP:AUDERR	AUDIT
OP:CFGSTAT	ECCR
OP:CLK	MISC
OP:DFC	ECCSC
OP:DMQ	ECCR
OP:EMERSTAT	SYSINIT
OP:ERRCHK	SYSINH
OP:FNAME	FHADM
OP:GEN:READLOG	SFTMGT
OP:GROW	ECCR
OP:INIT	ECCR
OP:IODRV	ECCSC
OP:LOG	FHADM
OP:MEMERRS	FHADM
OP:MHD	ECCSC
OP:OFL	ECCR
OP:OOS	ECCR
OP:PMCR	SERV
OP:REXINH	ECCT
OP:SCSD	ECCSC
OP:STATUS:DISKUSE	FHADM
OP:STATUS:FILESYS	FHADM
OP:STATUS:FREEDISK	FHADM
OP:STATUS:LISTDIR	FHADM
OP:STATUS:PORTS	FHADM
OP:STATUS:PROCESS	FHADM
OP:STATUS:SUM	FHADM
OP:STBY	ECCR
OP:ULARP:COMMAND	ECCR
OP:ULARP:EXECSEQ	ECCR
OP:ULARP:PROCESS	ECCR
OP:UMEM	SFTUTIL
OP:UNAV	ECCR
OP:UNEQIP	ECCR
OP:UTIL	SFTUTIL
ORD:SCSD	ECCT
RCV:DMTECD:RC	FHADM
RCV:DMTECD:VFY	FHADM
RCV:DMTSG:RC	FHADM

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Message	Authority Code *(continued)*
RCV:DMTSG:VFY	FHADM
RCV:MEMU:BROWSE	SFTUTIL
RCV:MENU:COMPAREDB	FHADM
RCV:MENU:CREATEECD	FHADM
RCV:MENU:CREATESG	FHADM
RCV:MENU:EVOL	FHADM
RCV:MENU:FDIFF	FHADM
RCV:MENU:KEYCMP	FHADM
RCV:MENU:KEYCOMM	FHADM
RCV:MENU:KEYS	FHADM
RCV:MENU:LOADF3B	FHADM
RCV:MENU:NEWDB	FHADM
RCV:MENU:PRINTDB	FHADM
RCV:MENU:PRINTFRM	FHADM
RCV:MENU:RCVECD	FHADM
RCV:MENU:RCVSG	FHADM
RCV:MENU:TRANSGEN	FHADM
RCV:MENU:TREEBLD	FHADM
RFT:ABORT	SFTMGT
RFT:BACKOUT	SFTMGT
RFT:BEGINPOST	SFTMGT
RFT:BEGINPRE	SFTMGT
RFT:CHECK	SFTMGT
RFT:CHGDIR	SFTMGT
RFT:CLEAR	SFTMGT
RFT:CONT	SFTMGT
RFT:CURRENT	SFTMGT
RFT:DIAGCU	SFTMGT
RFT:DIAGDFC	SFTMGT
RFT:DIAGIOP	SFTMGT
RFT:DUMP	SFTMGT
RFT:EXEC	SFTMGT
RFT:FDUMP	SFTMGT
RFT:NEXT	SFTMGT
RFT:PERFORM	SFTMGT
RFT:PREV	SFTMGT
RFT:PRINT	SFTMGT
RFT:RESET	SFTMGT
RFT:RESTORE	SFTMGT
RFT:RHASHLOG	SFTMGT
RFT:STATUS	SFTMGT
RFT:TESTTAPE	SFTMGT
RMV:CU	ECCSC

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Message	Authority Code *(continued)*
RMV:DFC	ECCSC
RMV:DUI	ECCSC
RMV:DUIC	ECCSC
RMV:HSD	ECCSC
RMV:HSDC	ECCSC
RMV:IOP	ECCSC
RMV:MHD	ECCSC
RMV:MT	ECCSC
RMV:MTC	ECCSC
RMV:MTTY	ECCSC
RMV:MTTYC	ECCSC
RMV:ROP	ECCSC
RMV:SCC	ECCSC
RMV:SCSDC	ECCSC
RMV:SDL	ECCSC
RMV:SDLC	ECCSC
RMV:TTY	ECCSC
RMV:TTYC	ECCSC
RNM:PSSWD	PASS
RST:CU	ECCSC
RST:DFC	ECCSC
RST:DUI	ECCSC
RST:DUIC	ECCSC
RST:HSD	ECCSC
RST:HSDC	ECCSC
RST:IOP	ECCSC
RST:MHD	ECCSC
RST:MT	ECCSC
RST:MTC	ECCSC
RST:MTTY	ECCSC
RST:MTTYC	ECCSC
RST:ROP	ECCSC
RST:SCC	ECCSC
RST:SCSDC	ECCSC
RST:SDL	ECCSC
RST:SDLC	ECCSC

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Message	Authority Code *(continued)*
RST:TTY	ECCSC
RST:TTYC	ECCSC
SET:CLK	ECCT
SET:IODRV	ECCSC
STOP:AUD	AUDIT
STOP:BKDISK	FHADM
STOP:CMPR:MHD	FHADM
STOP:COPY:DIFF	FHADM
STOP:DMQ	ECCT
STOP:EXC:ANY	SFTMGT
STOP:EXC:USER	SFTMGT
STOP:GEN	SFTMGT
STP:AUD	AUDIT
STP:BKDISK	FHADM
STP:CMPR:MHD	FHADM
STP:COPY:DIFF	FHADM
STP:DMQ	ECCT
STP:EXC:ANY	SFTMGT
STP:EXC:USER	SFTMGT
STP:GEN	SFTMGT
SW:CU	ECCSC
SW:PORTSW	ECCSC
TST:ACKU	SFTMGT
TST:ALT	SFTMGT
TST:SHL	SFTMGT
TST:SPL	SFTMGT
UPD:APPLY:BYTER	SFTMGT
UPD:APPLY:FILER	SFTMGT
UPD:APPLY:FUNCR	SFTMGT
UPD:BKOUT	SFTMGT
UPD:BLDBOOT	SFTMGT
UPD:CLR	SFTMGT
UPD:DISPLAY	SFTMGT
UPD:FTRC	SFTMGT
UPD:GEN:BACKOUT	SFTMGT
UPD:GEN:COMMIT	SFTMGT
UPD:GEN:CONTINUE	SFTMGT
UPD:GEN:ENTER	SFTMGT
UPD:GEN:PROCEED	SFTMGT
UPD:GEN:RESTORE	SFTMGT
UPD:OMIT	SFTMGT
UPD:PERM	SFTMGT
UPD:PURGE	SFTMGT
UPD:RECLAIM	SFTMGT

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Message	Authority Code *(continued)*
UPD:RESET	SFTMGT
UPD:VFY	SFTMGT
VFY:MHD	ECCT
VFY:PAUTH	AUTH
VFY:PCGRP	AUTH
VFY:TAPE	FHADM
VFY:TAUTH	AUTH
VFY:TCGRP	AUTH
WHEN:PID	SFTUTIL
WHEN:UID	SFTUTIL

ID . . . . . APP-BOOTDISKCHK
GENERIC . . . . . UNIX RTR R21.27 and later
TYPE . . . . . Output
MESSAGE CLASS . . N/A

BOOTDISKCHK CODE NUMBERS

Result Code	Description
1	UCB RID is set to IDNULL.
2	Could not get UCB record using specified RID.
3	Unit is marked UNEQIP.
4	Could not get UCB record for controlling unit.
5	Controlling unit is not marked ACT.
6	Could not reserve the unit.
7	Failed to fill in special device file name.
8	Failed to open special device file.
9	Could not set up physical I/O.
10	Could not read VTOC on the unit.
11	No LBOOT21 partition with size greater than zero.
12	No BBOOT partition with size greater than zero.
13	No SWAP partition with size greater than zero.
14	No ROOT partition with size greater than zero.
15	ROOT partition is not a file system.
16	No ECD partition with size greater than zero.
17	ECD partition is not a file system.
18	No ETC partition with size greater than zero.
19	ETC partition is not a file system.
20	Seek error while accessing root inode.
21	Read error while accessing root inode.
22	UCB specified by RID is not for a MHD.
23	Seek error while accessing "time stamp" inode.
24	Read error while accessing "time stamp" inode.
25	Seek error while accessing direct data block.
26	Read error while accessing direct data block.
27	Seek error while accessing single indirect header block.
28	Read error while accessing single indirect header block.
29	Seek error while accessing single indirect data block.
30	Read error while accessing single indirect data block.
31	Seek error while accessing double indirect header block.
32	Read error while accessing double indirect header block.

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Result Code	Description
33	Seek error while accessing single from double indirect header block.
34	Read error while accessing single from double indirect header block.
35	Seek error while accessing double indirect data block.
36	Read error while accessing double indirect data block.
37	Seek error while accessing triple indirect header block.
38	Read error while accessing triple indirect header block.
39	Seek error while accessing double from triple indirect header block.
40	Read error while accessing double from triple indirect header block.
41	Seek error while accessing single from triple indirect header block.
42	Read error while accessing single from triple indirect header block.
43	Seek error while accessing triple indirect data block.
44	Read error while accessing triple indirect data block.
45	MHD number is not in the range of 0-15 inclusive.
46	MHDs attached to DFC are not cabled to the expected DMAC, channel and device.
47	Up UCB from the SBUS is not a DFC.
48	Up UCB from the MHD is not a SBUS.
49	MHD number and internal device number do not correspond.
50	MHD number and SBUS internal device number do not correspond.
51	Cannot get to the DFC using up RID.
52	Cannot get to the channel using up RID.
53	Cannot get to the DMAC using up RID.
54	Up UCB from the DFC is not a channel.
55	Up UCB from the channel is not a DMAC.
56	No VTOC partition with size greater than zero.
57	VTOC partition does not start at address zero.
58	VTOC partition too small to hold "vtoc" data.

Exit Code	Description
1	Unable to enable messages.
2	Message returned not of size requested.
3	Unable to open /dev/ecd.
4	Received message is not of expected size.
5	Received message is not of expected inter-process type.
6	Received message is not of expected internal type.
7	Timed out waiting for message.
8	Unable to send event - parent process gone.
9-64	Not used at present.
65-97	Exiting due to signal. Subtract 64 to calculate the specific signal value.

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ID . . . . . APP-DCI-APPA-A
GENERIC . . . . . UNIX RTR R21.3 and R21.11
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

ERROR CODES GENERATED BY DCIDRV

NOTE These error codes are in hexadecimal notation.

DCIDRV

FILE	CODE	COMMENT
deljob.c	0x039	IO job has no associated IO message
deljob.c	0x040	IO message "ms_to" field is invalid
deljob.c	0x045	message type not valid for IOJOB or MIJOB
deljob.c	0x050	invalid completion code returned
deljob.c	0x05a	response contains jobid not in use
dciserv.c	0x070	mode command: base queue full
dciserv.c	0x073	bhqjobid failed for MODE job
dci_cmds.c	0x098	DCI version command base queue full
dci_cmds.c	0x09a	DCI version command bhqjobid failed
do_init.c	0x0a0	initmem1() failed
do_init.c	0x0a3	DCIDRV timing index 0 already assigned
do_init.c	0x0a4	DCIDRV port attach failed
do_msg.c	0x0d0	DMA_OK flag not set in msg
do_msg.c	0x0d7	maintenance job failure
do_msg.c	0x0dd	unknown ACK message received
do_msg.c	0x0df	unrecognizable message type
do_msg.c	0x0ef	unknown ACK message received
getpta.c	0x140	virtual addr does not map into segment no
getpta.c	0x145	iolock() failed
getpta.c	0x14a	uniolock() failed
getjobid.c	0x14e	Job inventory table is full
getjobid.c	0x14f	Job inventory table is no longer full
inhadm.c	0x160	RID to UCB conversion failed
inhadm.c	0x162	UCB update and release failed
inhadm.c	0x164	invalid inhibit administrator opcode
initkint.c	0x1a0	dtchintr call returned fail
initkint.c	0x1a5	atchintr call returned fail
initkint.c	0x1aa	enabintr call returned fail

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FILE	CODE	COMMENT *(continued)*
initmem.c	0x1b0	ECD attach failed
kfault.c	0x1b1	clear DDSBS command failed
kfault.c	0x1b2	clear BIC, FIFO and SWDMD command failed
kfault.c	0x1b3	Set interface enable command failed
kfault.c	0x1b4	initmem5() function failed
initmem.c	0x1b5	CONFIG OPEN failed
kfault.c	0x1b6	dtchintr() function call failed
kfault.c	0x1b7	atchintr() function call failed
initmem.c	0x1b8	atchdata call to the ECD failed
kfault.c	0x1b9	enabintr() function call failed
kfault.c	0x1bc	enabintr() function call failed
initmem.c	0x1bc	no DCIs in ECD
initmem.c	0x1be	DCI growth failed
initmem.c	0x1d6	RID to UCB conversion failed
initmem.c	0x1d8	invalid device type
initmem.c	0x1dc	RID update and release failed
initmem.c	0x1de	device is unequipped
initmem.c	0x1df	invalid DCI internal device id
initmem.c	0x1e1	channel RID to UCB conversion failed
initmem.c	0x1e2	failed to get DCI option record
initmem.c	0x1fc	memory initialization failed
initmem.c	0x203	getpta() function failed
initmem.c	0x209	idmadev() (write to DMAC RAM) failed
initmem.c	0x20f	RID not known by DCIDRV
initmem.c	0x213	DCI being degrown is being used
initmem.c	0x216	RID to UCB conversion failed
initmem.c	0x219	DCI being degrown not UNEQIP
iomsg.c	0x252	job request not allowed for non ACT DCI
cancel.c	0x257	READ job for IOCANCEL not found
iomsg.c	0x259	bad message
kfault.c	0x25a	progio(RETRY cmd to PIC) failed
io_ucbs.c	0x260	incorrect MDCT from IO message
io_ucbs.c	0x263	unknown device
io_ucbs.c	0x268	warning - enlarge DCIDRV's internal MDCT
delay.c	0x30	access to BIC failed
jobrsp.c	0x305	unrecognizable DCIDRV internal job type
kevent.c	0x32a	unexpected event
kevent.c	0x32c	driver is terminating itself
kevent.c	0x32d	pdfptr does not have valid value
kfault.c	0x343	failed to restart driver
kfault.c	0x344	failed to partially initialize DCI
kfault.c	0x345	dtchintr call returned fail
kfault.c	0x346	nonqueued audit error message
kfault.c	0x347	atchintr call returned fail
kfault.c	0x349	unexpected fault code

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FILE	CODE	COMMENT *(continued)*
kfault.c	0x34a	critical hit - S_RSP
kfault.c	0x34b	critical hit - S_RSP
delay.c	0x35	desired BIC status not obtained
kfault.c	0x350	driver is processing the PIO failure fault
kfault.c	0x353	driver state error
kfault.c	0x373	unknown RID faulted
kfault.c	0x376	PIO lost for a unit
kfault.c	0x379	unknown RID faulted
kfault.c	0x37c	unexpected fault code
kfault.c	0x383	timereq() failed -dciinit
kfault.c	0x39b	major DCI reinitialization
kfault.c	0x3a6	invalid dciinit() sequence
kint.c	0x3ba	failed to clear BIC INTP
kint.c	0x3bc	stray interrupts detected
maint.c	0x3d0	RID not known by DCIDRV
maint.c	0x3d3	DCIDRV has aborted client
maint.c	0x3d5	invalid maintenance state
maint.c	0x3d8	device file not open
maint.c	0x3dc	another process has device file open
maint.c	0x3de	request prohibited on S_ACT DCI
maint.c	0x3e1	maint attach interrupt failed
maint.c	0x3e3	maint enable interrupt failed
maint.c	0x3e8	DMAC ram init failed
maint.c	0x3ec	detach / attach / enable interrupt failed
maint.c	0x3ef	detach intr function call failed
maint.c	0x409	CONFIG denied request to remove unit
maint.c	0x40c	may only restore S_OOS units
maint.c	0x40d	cannot restore DCI if CU OFFLINE
maint.c	0x40e	cannot restore DCI if CU OFFLINE
maint.c	0x43c	getdmaa function failed
maint.c	0x43e	received WSETUP0 before SPECDMA
maint.c	0x442	WSETUP1 received before WSETUP0
maint.c	0x445	uniolock failed
maint.c	0x448	getdmaa function failed
maint.c	0x4aa	device must be non-ACT to init error msg inhibit flag
maint.c	0x4ac	invalid opercode in maintenance message
maint.c	0x4ae	unexpected maint interrupt
maint.c	0x4b3	dtchintr() function call failed
maint.c	0x4b6	maintenance work timed out
maint.c	0x4b8	unexpected timeout
pdfmsg.c	0x550	physical device file not opened
pdfmsg.c	0x556	iolock() function call failed
pdfmsg.c	0x55b	getjobid() function call failed
pdfmsg.c	0x573	this physical device file already open
pdfmsg.c	0x575	RID to UCB conversion failed
pdfmsg.c	0x57a	update of device file variables failed

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FILE	CODE	COMMENT *(continued)*
pdfmsg.c	0x585	uniolock() function call failed
progio.c	0x5a0	command to BIC failed
progio.c	0x5a5	command to PIC failed
progio.c	0x5aa	clear of DDSBS failed
progio.c	0x5bc	read status of BIC failed
progio.c	0x5c5	progio() cmdtype not defined
remove.c	0x600	requested maintenance message is not a unit remove
remove.c	0x60e	CONFIG chgstate() call failed
remove.c	0x613	dtchintr() failed
remove.c	0x614	progio(MODE cmd to PIC) failed
remove.c	0x615	failed to get timer
restore.c	0x6be	rstdcis() failed to get timer
restore.c	0x6bf	rstdcis() - invalid argument
restore.c	0x6c0	RID to UCB conversion failed
restore.c	0x6c3	chgstate() function call failed
restore.c	0x6c5	initmem3() function call failed
restore.c	0x6c8	initmem5() function call failed
restore.c	0x6ce	progio() function call to clear DDSBS failed
restore.c	0x6d1	progio() (BIC init and PIC reset) failed
restore.c	0x6d3	enabintr() function call failed
restore.c	0x6d5	sysgen() function call failed
restore.c	0x6d7	version of SUN and 3B driver are not same
restore.c	0x6d8	sysgen() function returned fail
restore.c	0x6df	dciserv() function call failed
restore.c	0x6e2	dciserv() function returned fail
restore.c	0x6e5	call to chgstate() failed
restore.c	0x6ea	RID to UCB conversion failed
restore.c	0x6eb	failed to get timer
restore.c	0x6ef	invalid DCI restore sequence number
sysgen.c	0x760	progio(set BIC IFEN flag) failed
sysgen.c	0x761	Job Inventory table corrupted
queuejob.c	0x762	resume pio failed
queuejob.c	0x763	base queue no longer full
sysgen.c	0x765	progio(SYSGEN cmd to PIC) failed
timeock.c	0x770	job timed out
timeock.c	0x771	Failed to queue heartbeat job
timeock.c	0x778	Heartbeat job timed out
timeock.c	0x77e	Removed DCI, CU OFFLINE
timeock.c	0x77f	DCI usability audit failed
timer.c	0x790	timing table full
timer.c	0x795	timeout request is out of range
timeock.c	0x799	Write job timed out
timeock.c	0x79a	Open job timed out
timeock.c	0x79b	Close job timed out
timeock.c	0x79c	invalid jobtype timed out
timeock.c	0x79d	READ CANCEL IO job timed out

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FILE	CODE	COMMENT *(continued)*
reljobid.c	0x801	Removing job that is not in use
restore.c	0xaca	atchintr() function call failed
sndcmd.c	0xce2	DCI device not online
sndcmd.c	0xce8	DCI sndcmd: job queue full
sndcmd.c	0xcea	failed to get job id
sndcmd.c	0xceb	invalid cmd type
sndcmd.c	0xdeb	invalid cmd type

ID . . . . . APP-DCI-APPA-B
GENERIC . . . . . UNIX RTR R21.15 thru R21.30
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

ERROR CODES GENERATED BY DCIDRV

NOTE These error codes are in hexadecimal notation.

DCIDRV

FILE	CODE	COMMENT
delay.c	0x030	access to BIC failed
deljob.c	0x039	IO job has no associated IO message
deljob.c	0x040	IO message "ms_to" field is invalid
deljob.c	0x045	message type not valid for IOJOB or MIJOB
deljob.c	0x050	invalid completion code returned
deljob.c	0x05a	response contains jobid not in use
dciserv.c	0x070	mode command: base queue full
dciserv.c	0x073	bhqjobid failed for MODE job
dci_cmds.c	0x098	DCI version command base queue full
dci_cmds.c	0x09a	DCI version command bhqjobid failed
do_init.c	0x0a0	initmem1() failed
do_init.c	0x0a3	DCIDRV timing index 0 already assigned
do_init.c	0x0a4	DCIDRV port attach failed
do_msg.c	0x0d0	DMA_OK flag not set in msg
do_msg.c	0x0d7	maintenance job failure
do_msg.c	0x0dd	unknown ACK message received
do_msg.c	0x0df	unrecognizable message type
do_msg.c	0x0ef	unknown ACK message received
dcidip.c	0x0f4	message alloc failed for DCIDIP message
dcidip.c	0x0f6	message alloc failed for DCIDIP message
dcidip.c	0x0f8	message alloc failed for DCIDIP message
dcidip.c	0x0fc	invalid opercode in util message
getpta.c	0x140	virtual addr does not map into segment no
getpta.c	0x145	iolock() failed
getpta.c	0x14a	uniolock() failed
getjobid.c	0x14e	Job inventory table is full
getjobid.c	0x14f	Job inventory table is no longer full
inhadm.c	0x160	RID to UCB conversion failed

FILE	CODE	COMMENT *(continued)*
inhadm.c	0x162	UCB update and release failed
inhadm.c	0x164	invalid inhibit administrator opcode
initkint.c	0x1a0	dtchintr call returned fail
initkint.c	0x1a5	atchintr call returned fail
initkint.c	0x1aa	enabintr call returned fail
initmem.c	0x1b0	ECD attach failed
kfault.c	0x1b1	clear DDSBS command failed
kfault.c	0x1b2	clear BIC, FIFO and SWDMD command failed
kfault.c	0x1b3	Set interface enable command failed
kfault.c	0x1b4	initmem5() function failed
initmem.c	0x1b5	CONFIG OPEN failed
kfault.c	0x1b6	dtchintr() function call failed
kfault.c	0x1b7	atchintr() function call failed
initmem.c	0x1b8	atchdata call to ECD failed
kfault.c	0x1b9	enabintr() function call failed
kfault.c	0x1bc	enabintr() function call failed
initmem.c	0x1bc	no DCIs in ECD
initmem.c	0x1be	DCI growth failed
initmem.c	0x1d6	RID to UCB conversion failed
initmem.c	0x1d8	invalid device type
initmem.c	0x1dc	RID update and release failed
initmem.c	0x1de	device is unequipped
initmem.c	0x1df	invalid DCI internal device id
initmem.c	0x1e1	channel RID to UCB conversion failed
initmem.c	0x1e2	failed to get DCI option record
initmem.c	0x1fc	memory initialization failed
initmem.c	0x203	getpta() function failed
initmem.c	0x204	bad Adjunct UCB RID
initmem.c	0x209	idmadev() (write to DMAC RAM) failed
initmem.c	0x20f	RID not known by DCIDRV
initmem.c	0x213	DCI being degrown is being used
initmem.c	0x216	RID to UCB conversion failed
initmem.c	0x219	DCI being degrown not UNEQIP
iomsg.c	0x252	job request not allowed for non ACT DCI
cancel.c	0x257	job for IOCANCEL not found
iomsg.c	0x259	bad message
kfault.c	0x25a	progio(RETRY cmd to PIC) failed
io_ucbs.c	0x260	incorrect MDCT from IO message
io_ucbs.c	0x263	unknown device
io_ucbs.c	0x268	warning - enlarge DCIDRV's internal MDCT
trtpdf.c	0x270	MDCT points to non-HA-OMP DCI unit
trtpdf.c	0x271	MDCT backup ucb field is empty
io_ucbs.c	0x272	Cannot find adjunct device that is ACT
io_ucbs.c	0x273	Cannot find adjunct device that is STBY
io_ucbs.c	0x274	Cannot access STBY adjunct if no ACT mate

FILE	CODE	COMMENT *(continued)*
io_ucbs.c	0x275	Cannot access a STBY adjunct in simplex configuration
io_ucbs.c	0x278	Non HA-OMP Device using STBY Range
jobrsp.c	0x305	unrecognizable DCIDRV internal job type
rcc.c	0x308	failed to set unsolicited job timeout
rcc.c	0x310	failed to get DCI option record
rcc.c	0x315	failed to update DCI option record
rcc.c	0x320	changing adjunct's state, followed by the old state and the new state. The states are S_ACT through S_GROW as defined in head/lla/ecd.h
rcc.c	0x325	unsolicited job response timeout, this message includes the timeout value in seconds
kevent.c	0x32a	unexpected event
kevent.c	0x32c	driver is terminating itself
kevent.c	0x32d	pdfptr does not have valid value
kfault.c	0x32e	general message for all faults
kfault.c	0x343	failed to restart driver
kfault.c	0x344	failed to partially initialize DCI
kfault.c	0x345	dtchintr call returned fail
kfault.c	0x346	nonqueued audit error message
kfault.c	0x347	atchintr call returned fail
kfault.c	0x349	unexpected fault code
kfault.c	0x34a	critical hit - S_RSP
kfault.c	0x34b	critical hit - S_RSP
delay.c	0x35	desired BIC status not obtained
kfault.c	0x350	driver is processing the PIO failure fault
kfault.c	0x353	driver state error
kfault.c	0x373	unknown RID faulted
kfault.c	0x376	PIO lost for a unit
kfault.c	0x379	unknown RID faulted
kfault.c	0x37c	unexpected fault code
kfault.c	0x383	timereq() failed -dciinit
kfault.c	0x39b	major DCI reinitialization
kfault.c	0x3a6	invalid dciinit() sequence
kint.c	0x3ba	failed to clear BIC INTP
kint.c	0x3bc	stray interrupts detected
maint.c	0x3d0	RID not known by DCIDRV
maint.c	0x3d3	DCIDRV has aborted client
maint.c	0x3d5	invalid maintenance state
maint.c	0x3d8	device file not open
maint.c	0x3dc	another process has device file open
maint.c	0x3de	request prohibited on S_ACT DCI
maint.c	0x3e1	maint attach interrupt failed
maint.c	0x3e3	maint enable interrupt failed
maint.c	0x3e8	DMAC ram init failed
maint.c	0x3ec	detach/attach/enable interrupt failed
maint.c	0x3ef	detach intr function call failed

SEE PROPRIETARY NOTICE ON COVER PAGE

FILE	CODE	COMMENT *(continued)*
maint.c	0x409	CONFIG denied request to remove unit
maint.c	0x40c	may only restore S_OOS units
maint.c	0x40d	cannot restore DCI if CU OFFLINE
maint.c	0x40e	cannot restore DCI if CU OFFLINE
maint.c	0x43c	getdmaa function failed
maint.c	0x43e	received WSETUP0 before SPECDMA
maint.c	0x442	WSETUP1 received before WSETUP0
maint.c	0x445	uniolock failed
maint.c	0x448	getdmaa function failed
maint.c	0x4aa	device must be non-ACT to init error msg inhibit flag
maint.c	0x4ac	invalid opercode in maintenance message
maint.c	0x4ae	unexpected maint interrupt
maint.c	0x4b3	dtchintr() function call failed
maint.c	0x4b6	maintenance work timed out
maint.c	0x4b8	unexpected timeout
pdfmsg.c	0x550	physical device file not opened
pdfmsg.c	0x556	iolock() function call failed
pdfmsg.c	0x55b	getjobid() function call failed
pdfmsg.c	0x573	this physical device file already open
pdfmsg.c	0x575	RID to UCB conversion failed
pdfmsg.c	0x57a	update of device file variables failed
pdfmsg.c	0x585	uniolock() function call failed
progio.c	0x5a0	command to BIC failed
progio.c	0x5a5	command to PIC failed
progio.c	0x5aa	clear of DDSBS failed
progio.c	0x5bc	read status of BIC failed
progio.c	0x5c5	progio() cmdtype not defined
remove.c	0x600	requested maintenance message is not a unit remove
remove.c	0x60e	CONFIG chgstate() call failed
remove.c	0x613	dtchintr() failed
remove.c	0x614	progio(MODE cmd to PIC) failed
remove.c	0x615	failed to get timer
restore.c	0x6be	rstdcis() failed to get timer
restore.c	0x6bf	rstdcis() - invalid argument
restore.c	0x6c0	RID to UCB conversion failed
restore.c	0x6c3	chgstate() function call failed
restore.c	0x6c5	initmem3() function call failed
restore.c	0x6c8	initmem5() function call failed
restore.c	0x6ce	progio() function call to clear DDSBS failed
restore.c	0x6d1	progio() (BIC init and PIC reset) failed
restore.c	0x6d3	enabintr() function call failed
restore.c	0x6d5	sysgen() function call failed
restore.c	0x6d7	version of SUN and 3B driver are not same
restore.c	0x6d8	sysgen() function returned fail
restore.c	0x6df	dciserv() function call failed
restore.c	0x6e2	dciserv() function returned fail

SEE PROPRIETARY NOTICE ON COVER PAGE

FILE	CODE	COMMENT *(continued)*
restore.c	0x6e5	call to chgstate() failed
restore.c	0x6ea	RID to UCB conversion failed
restore.c	0x6eb	failed to get timer
restore.c	0x6ef	invalid DCI restore sequence number
sysgen.c	0x760	progio(set BIC IFEN flag) failed
sysgen.c	0x761	Job Inventory table corrupted
queuejob.c	0x762	resume pio failed
queuejob.c	0x763	base queue no longer full
sysgen.c	0x765	progio(SYSGEN cmd to PIC) failed
timeock.c	0x770	job timed out
timeock.c	0x771	Failed to queue heartbeat job
timeock.c	0x778	Heartbeat job timed out
timeock.c	0x77e	Removed DCI, CU OFFLINE
timeock.c	0x77f	DCI usability audit failed
timer.c	0x790	timing table full
timer.c	0x795	timeout request is out of range
timeock.c	0x799	Write job timed out
timeock.c	0x79a	Open job timed out
timeock.c	0x79b	Close job timed out
timeock.c	0x79c	invalid jobtype timed out
timeock.c	0x79d	READ CANCEL IO job timed out
reljobid.c	0x801	Removing job that is not in use
restore.c	0xaca	atchintr() function call failed
sndcmd.c	0xce2	DCI device not online
sndcmd.c	0xce8	DCI sndcmd: job queue full
sndcmd.c	0xcea	failed to get job id
sndcmd.c	0xceb	invalid cmd type
sndcmd.c	0xdeb	invalid cmd type

ID . . . . . APP-DCI-APPA-C
GENERIC . . . . . UNIX RTR R21.31 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

ERROR CODES GENERATED BY DCIDRV

NOTE These error codes are in hexadecimal notation.

DCIDRV

CODE	COMMENT	PLAFORM
0x030	access to BIC failed.	3B20/21D only.
0x039	IO job has no associated IO message.	3B20/21D only.
0x040	IO message "ms_to" field is invalid.	3B20/21D only.
0x045	message type not valid for IOJOB or MIJOB.	3B20/21D only.
0x050	invalid completion code returned.	3B20/21D only.
0x051	Job reported error.	3B20/21D only.
0x05a	response contains jobid not in use.	3B20/21D only.
0x070	mode command: base queue full.	3B20/21D only.
0x073	bhqjobid failed for MODE job.	3B20/21D only.
0x098	DCI version command base queue full.	3B20/21D only.
0x09a	DCI version command bhqjobid failed.	3B20/21D only.
0x0a0	initmem1() failed.	3B20/21D only.
0x0a1	start i/o assist failed.	3B21E only.
0x0a2	atchchan() failed.	3B21E only.
0x0a3	DCIDRV timing index 0 already assigned.	3B20/21D only.
0x0a3	atchintr() failed.	3B31E only.
0x0a4	DCIDRV port attach failed	3B20/21D only.
0x0a4	enabintr() failed.	3B21E only.
0x0a5	initmem1() failed.	3B21E only.
0x0a6	DVIDRV timing index 0 already assigned.	3B21E only.
0x0a7	DCIDRV port attach failed.	3B21E only.
0x0d0	DMA_OK flag not set in msg.	3B20/21D only.
0x0d7	maintenance job failure	
0x0dd	unknown ACK message received	
0x0df	unrecognizable message type	
0x0ef	unknown ACK message received	
0x0f4	message alloc failed for DCIDIP message	
0x0f6	message alloc failed for DCIDIP message	

CODE	COMMENT	PLAFORM
0x0f8	message alloc failed for DCIDIP message	
0x0fc	invalid opercode in util message	
0x140	virtual addr does not map into segment no.	3B20/21D only.
0x145	iolock() failed.	3B20/21D only.
0x14a	uniolock() failed.	3B20/21D only.
0x14e	Job inventory table is full.	3B20/21D only.
0x14f	Job inventory table is no longer full.	3B20/21D only.
0x160	RID to UCB conversion failed	
0x162	UCB update and release failed	
0x164	invalid inhibit administrator opcode	
0x1a0	dtchintr call returned fail.	3B20/21D only.
0x1a5	atchintr call returned fail.	3B20/21D only.
0x1aa	enabintr call returned fail.	3B20/21D only.
0x1b0	ECD attach failed	
0x1b5	CONFIG OPEN failed	
0x1b8	atchdata call to ECD failed	
0x1bc	enabintr() function call failed.	3B20/21D only.
0x1be	DCI growth failed	
0x1d6	RID to UCB conversion failed	
0x1d8	invalid device type	
0x1dc	RID update and release failed	
0x1de	device is unequipped	
0x1df	invalid DCI internal device id	
0x1e1	channel RID to UCB conversion failed.	3B20/21D only.
0x1e2	failed to get DCI option record	
0x1fc	memory initialization failed	
0x203	getpta() function failed.	3B20/21D only.
0x204	bad Adjunct UCB RID	
0x209	idmadev() (write to DMAC RAM) failed.	3B20/21D only.
0x20f	RID not known by DCIDRV	
0x213	DCI being degrown is being used	
0x216	RID to UCB conversion failed	
0x219	DCI being degrown not UNEQIP	
0x256	CANCEL_IO failed because job queue is full.	3B21E only.
0x257	job for IOCANCEL not found	
0x258	CANCEL_IO job failed.	3B21E only.
0x259	bad message	
0x260	incorrect MDCT from IO message	
0x263	unknown device	
0x268	warning - enlarge DCIDRV's internal MDCT	
0x270	MDCT points to non-HA-OMP DCI unit	
0x272	Cannot find adjunct device that is ACT	
0x273	Cannot find adjunct device that is STBY	

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CODE	COMMENT	PLAFORM
0x274	Cannot access STBY adjunct if no ACT mate	
0x275	Cannot access a STBY adjunct in simplex configuration	
0x278	Non HA-OMP Device using STBY Range	
0x279	DCI driver in overload - no free job table entries.	3B21E only.
0x30	Access to BIC failed.	3B20/21D only.
0x301	Heartbeat job inconsistency, queued heartbeat not in use.	3B20/21D only.
0x302	Heartbeat job inconsistancy, queued job not heartbeat.	3B20/21D only.
0x305	unrecognizable DCIDRV internal job type.	3B20/21D only.
0x308	failed to set unsolicited job timeout	
0x310	failed to get DCI option record.	3B20/21D only.
0x310	Failed to get adjunct UCB record.	3B21E only.
0x315	failed to update DCI option record.	3B20/21D only.
0x315	failed to update adjunct UCB record.	3B21E only.
0x320	changing adjunct's state, followed by the old state and the new state. The states are S_ACT through S_GROW as defined in head/lla/ecd.h	
0x325	unsolicited job response timeout, this message includes the timeout value in seconds.	3B20/21D only.
0x32a	unexpected event	
0x32c	driver is terminating itself.	3B20/21D only.
0x32c	TWO OF THESE FOR EMDCIDRV & DRIVER!!	3B21E only.
0x32d	expected DCI not found and not removed.	
0x32e	general message for all faults.	
0x32f	fault on fault, terminate driver.	
0x330	message not found.	
0x345	dtchintr call returned fail.	3B20/21D only.
0x346	old nonqueued audit error message.	
0x347	atchintr call returned fail.	3B20/21D only.
0x349	unexpected fault code.	
0x35	desired BIC status not obtained.	3B20/21D only.
0x350	driver is processing the PIO failure fault.	3B20/21D only.
0x373	unknown RID faulted	
0x376	PIO lost for a unit	
0x379	unknown RID faulted	
0x37c	unexpected fault code.	
0x383	timereq() failed -dciinit.	3B20/21D only.
0x39b	major DCI reinitialization.	3B20/21D only.
0x3a6	invalid dciinit() sequence.	3B20/21D only.
0x3b4	Heartbeat job inconsistency, queued heartbeat not in use.	3B21E only.
0x3b9	heartbeat job inconsistancy, queued job not heartbeat.	3B21E only.
0x3ba	failed to clear BIC INTP.	3B20/21D only.
0x3bc	stray interrupts detected.	3B20/21D only.
0x3bd	go ONLINE job returned error.	3B21E only.
0x3be	VERSION command failed.	3B21E only.

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CODE	COMMENT	PLAFORM

CODE	COMMENT	PLAFORM
0x3d0	RID not known by DCIDRV	
0x3d3	DCIDRV has aborted client	
0x3d5	invalid maintenance state	
0x3d8	device file not open	
0x3dc	another process has device file open	
0x3de	request prohibited on S_ACT DCI	
0x3e1	maint attach interrupt failed.	3B20/21D only.
0x3e3	maint enable interrupt failed.	3B20/21D only.
0x3e8	DMAC ram init failed.	3B20/21D only.
0x3ec	detach/attach/enable interrupt failed.	3B20/21D only.
0x3ef	detach intr function call failed.	3B20/21D only.
0x409	CONFIG denied request to remove unit	
0x40c	may only restore S_OOS units	
0x40d	cannot restore DCI if CU OFFLINE.	3B20/21D only.
0x40e	cannot restore DCI if CU OFFLINE.	3B20/21D only.
0x43c	getdmaa function failed.	3B20/21D only.
0x43e	received WSETUP0 before SPECDMA.	3B20/21D only.
0x442	WSETUP1 received before WSETUP0.	3B20/21D only.
0x445	uniolock failed.	3B20/21D only.
0x448	getdmaa function failed.	3B20/21D only.
0x4aa	device must be non-ACT to init error msg inhibit flag.	3B20/21D only.
0x4ac	invalid opercode in maintenance message.	
0x4ae	unexpected maint interrupt.	3B20/21D only.
0x4b3	dtchintr() function call failed.	3B20/21D only.
0x4b6	maintenance work timed out	
0x4b8	unexpected timeout	
0x550	physical device file not opened	
0x556	iolock() function call failed.	3B20/21D only.
0x55b	getjobid() function call failed.	3B20/21D only.
0x573	this physical device file already open	
0x575	RID to UCB conversion failed	
0x57a	update of device file variables failed	
0x585	uniolock() function call failed.	3B20/21D only.
0x5a0	command to BIC failed.	3B20/21D only.
0x5a5	command to PIC failed.	3B20/21D only.
0x5aa	clear of DDSBS failed.	3B20/21D only.
0x5bc	read status of BIC failed.	3B20/21D only.
0x5c5	progio() cmdtype not defined.	3B20/21D only.
0x600	requested maintenance message is not a unit remove	
0x60e	CONFIG chgstate() call failed	
0x613	dtchintr() failed.	3B20/21D only.
0x615	failed to get timer	
0x678	RID to UCB LLA call failed.	
0x6bf	rstdcis() - invalid argument	
0x6c0	RID to UCB conversion failed	

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CODE	COMMENT	PLAFORM
0x6c1	Cannot restore from GROW state.	3B21E only
0x6c3	chgstate() function call failed	
0x6c5	initmem3() function call failed	
0x6c8	initmem5() function call failed.	3B20/21D only.
0x6ce	progio() function call to clear DDSBS failed.	3B20/21D only.
0x6d1	progio() (BIC init and PIC reset) failed.	3B20/21D only.
0x6d3	enabintr() function call failed.	3B20/21D only.
0x6d5	sysgen() function call failed.	3B20/21D only.
0x6d5	Could not send "go online" command.	3B21E only.
0x6d7	version numbers of 3B and Solaris drivers do not match.	3B20/21D only.
0x6d8	sysgen() function returned fail.	3B20/21D only.
0x6df	dciserv() function call failed.	3B20/21D only.
0x6e2	dciserv() function returned fail.	3B20/21D only.
0x6e2	"go online" command failed.	3B21E only.
0x6e3	Could not send "version" command.	3B21E only.
0x6e4	"version" command failed.	3B21E only.
0x6e5	call to chgstate() failed	
0x6ea	RID to UCB conversion failed	
0x6eb	failed to get timer.	3B20/21D only.
0x6ef	invalid DCI restore sequence number	
0x760	progio(set BIC IFEN flag) failed.	3B20/21D only.
0x761	Job Inventory table corrupted.	3B20/21D only.
0x762	resume pio failed.	3B20/21D only.
0x763	base queue no longer full.	3B20/21D only.
0x765	progio(SYSGEN cmd to PIC) failed.	3B20/21D only.
0x770	job timed out.	3B20/21D only.
0x771	Failed to queue heartbeat job	
0x773	VDCI job timeout.	3B21E only.
0x778	Heartbeat job timed out	
0x77b	Too many heartbeat timeouts, DCI will be removed.	
0x77e	Removed DCI, CU OFFLINE.	3B20/21D only.
0x77f	DCI usability audit failed.	3B20/21D only.
0x790	timing table full	
0x795	timeout request is out of range	
0x797	ONLINE job timed out	3B21E only.
0x798	Job Timeout unable to start I/O Assist	3B21E only.
0x799	Write job timed out, CANCEL_IO.	
0x79a	Open job timed out	
0x79b	Close job timed out	
0x79c	invalid jobtype timed out	
0x79d	READ job timed out, CANCEL_IO.	
0x79e	CANCEL_IO job failed.	3B21E only.
0x79f	CANCEL_IO failed because job queue is full.	3B21E only.
0x801	Removing job that is not in use.	3B20/21D only.
0x949	Invalid segment size requested.	3B20/21D only.

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CODE	COMMENT	PLAFORM
0x94c	Fail to get segment index for new segment.	3B20/21D only.
0x951	Fail to allocate a message buffer.	3B20/21D only.
0x953	Fail to allocate a message buffer.	3B20/21D only.
0xaca	atchintr() function call failed.	3B20/21D only.
0xce2	DCI device not online	
0xce4	IO job failed because job queue is full.	3B21E only.
0xce8	DCI sndcmd: job queue full.	3B20/21D only.
0xcea	failed to get job id.	3B20/21D only.
0xceb	invalid cmd type	
0xced	IO job failed.	3B21E only.
0xdeb	invalid cmd type.	3B20/21D only.

ID . . . . . APP-DCI-APPA-D
GENERIC . . . . . UNIX RTR R21.31 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

ERROR CODES GENERATED BY DCIDRV

NOTE These error codes are in hexadecimal notation.

DCIDRV

CODE	COMMENT	PLAFORM
0x030	access to BIC failed.	3B20/21D only.
0x039	IO job has no associated IO message.	3B20/21D only.
0x040	IO message "ms_to" field is invalid.	3B20/21D only.
0x045	message type not valid for IOJOB or MIJOB.	3B20/21D only.
0x050	invalid completion code returned.	3B20/21D only.
0x051	Job reported error.	3B20/21D only.
0x05a	response contains jobid not in use.	3B20/21D only.
0x070	mode command: base queue full.	3B20/21D only.
0x073	bhqjobid failed for MODE job.	3B20/21D only.
0x098	DCI version command base queue full.	3B20/21D only.
0x09a	DCI version command bhqjobid failed.	3B20/21D only.
0x0a0	initmem1() failed.	3B20/21D only.
0x0a1	start i/o assist failed.	3B21E only.
ox0a2	atchchan() failed.	3B21E only.
0x0a3	DCIDRV timing index 0 already assigned.	3B20/21D only.
0x0a3	atchintr() failed.	3B31E only.
0x0a4	DCIDRV port attach failed	3B20/21D only.
0x0a4	enabintr() failed.	3B21E only.
0x0a5	initmem1() failed.	3B21E only.
0x0a6	DVIDRV timing index 0 already assigned.	3B21E only.
0x0a7	DCIDRV port attach failed.	3B21E only.
0x0d0	DMA_OK flag not set in msg.	3B20/21D only.
0x0d7	maintenance job failure	
0x0dd	unknown ACK message received	
0x0df	unrecognizable message type	
0x0ef	unknown ACK message received	
0x0f4	message alloc failed for DCIDIP message	
0x0f6	message alloc failed for DCIDIP message	

CODE	COMMENT	PLAFORM
0x0f8	message alloc failed for DCIDIP message	
0x0fc	invalid opercode in util message	
0x140	virtual addr does not map into segment no.	3B20/21D only.
0x145	iolock() failed.	3B20/21D only.
0x14a	uniolock() failed.	3B20/21D only.
0x14e	Job inventory table is full.	3B20/21D only.
0x14f	Job inventory table is no longer full.	3B20/21D only.
0x160	RID to UCB conversion failed	
0x162	UCB update and release failed	
0x164	invalid inhibit administrator opcode	
0x1a0	dtchintr call returned fail.	3B20/21D only.
0x1a5	atchintr call returned fail.	3B20/21D only.
0x1aa	enabintr call returned fail.	3B20/21D only.
0x1b0	ECD attach failed	
0x1b5	CONFIG OPEN failed	
0x1b8	atchdata call to ECD failed	
0x1bc	enabintr() function call failed.	3B20/21D only.
0x1be	DCI growth failed	
0x1d6	RID to UCB conversion failed	
0x1d8	invalid device type	
0x1dc	RID update and release failed	
0x1de	device is unequipped	
0x1df	invalid DCI internal device id	
0x1e1	channel RID to UCB conversion failed.	3B20/21D only.
0x1e2	failed to get DCI option record	
0x1fc	memory initialization failed	
0x203	getpta() function failed.	3B20/21D only.
0x204	bad Adjunct UCB RID	
0x209	idmadev() (write to DMAC RAM) failed.	3B20/21D only.
0x20f	RID not known by DCIDRV	
0x213	DCI being degrown is being used	
0x216	RID to UCB conversion failed	
0x219	DCI being degrown not UNEQIP	
0x256	CANCEL_IO failed because job queue is full.	3B21E only.
0x257	job for IOCANCEL not found	
0x258	CANCEL_IO job failed.	3B21E only.
0x259	bad message	
0x260	incorrect MDCT from IO message	
0x263	unknown device	
0x268	warning - enlarge DCIDRV's internal MDCT	
0x270	MDCT points to non-HA-OMP DCI unit	
0x272	Cannot find adjunct device that is ACT	
0x273	Cannot find adjunct device that is STBY	
0x274	Cannot access STBY adjunct if no ACT mate	
0x275	Cannot access a STBY adjunct in simplex configuration	

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CODE	COMMENT	PLAFORM
0x278	Non HA-OMP Device using STBY Range	
0x279	DCI driver in overload - no free job table entries.	3B21E only.
0x30	Access to BIC failed.	3B20/21D only.
0x305	unrecognizable DCIDRV internal job type.	3B20/21D only.
0x308	failed to set unsolicited job timeout	
0x310	failed to get DCI option record.	3B20/31D only.
0x310	Failed to get adjunct UCB record.	3B21E only.
0x315	failed to update DCI option record.	3B20/21D only.
0x315	failed to update adjunct UCB record.	3B21E only.
0x320	changing adjunct's state, followed by the old state and the new state. The states are S_ACT through S_GROW as defined in head/lla/ecd.h	
0x325	unsolicited job response timeout, this message includes the timeout value in seconds.	3B20/21D only.
0x32a	unexpected event	
0x32c	driver is terminating itself.	3B20/21D only.
0x32c	TWO OF THESE FOR EMDCIDRV & DRIVER!!	3B21E only.
0c32d	expected DCI not found and not removed.	
0x32e	general message for all faults.	
0x32f	fault on fault, terminate driver.	
0x330	message not found.	
0x345	dtchintr call returned fail.	3B20/21D only.
0x346	old nonqueued audit error message.	
0x347	atchintr call returned fail.	3B20/21D only.
0x349	unexpected fault code.	
0x35	desired BIC status not obtained.	3B20/21D only.
0x350	driver is processing the PIO failure fault.	3B20/21D only.
0x373	unknown RID faulted	
0x376	PIO lost for a unit	
0x379	unknown RID faulted	
0x37c	unexpected fault code.	
0x383	timereq() failed -dciinit.	3B20/21D only.
0x39b	major DCI reinitialization.	3B20/21D only.
0x3a6	invalid dciinit() sequence.	3B20/21D only.
0x3b4	Heartbeat job inconsistency, queued heartbeat not in use.	3B21E only.
0x3b9	heartbeat job inconsistancy, queued job not heartbeat.	3B21E only.
0x3ba	failed to clear BIC INTP.	3B20/21D only.
0x3bc	stray interrupts detected.	3B20/21D only.
0x3d0	RID not known by DCIDRV	
0x3d3	DCIDRV has aborted client	
0x3d5	invalid maintenance state	
0x3d8	device file not open	
0x3dc	another process has device file open	
0x3de	request prohibited on S_ACT DCI	
0x3e1	maint attach interrupt failed.	3B20/21D only.

CODE	COMMENT	PLAFORM
0x3e3	maint enable interrupt failed.	3B20/21D only.
0x3e8	DMAC ram init failed.	3B20/21D only.
0x3ec	detach/attach/enable interrupt failed.	3B20/21D only.
0x3ef	detach intr function call failed.	3B20/21D only.
0x409	CONFIG denied request to remove unit	
0x40c	may only restore S_OOS units	
0x40d	cannot restore DCI if CU OFFLINE.	3B20/21D only.
0x40e	cannot restore DCI if CU OFFLINE.	3B20/21D only.
0x43c	getdmaa function failed.	3B20/21D only.
0x43e	received WSETUP0 before SPECDMA.	3B20/21D only.
0x442	WSETUP1 received before WSETUP0.	3B20/21D only.
0x445	uniolock failed.	3B20/21D only.
0x448	getdmaa function failed.	3B20/21D only.
0x4aa	device must be non-ACT to init error msg inhibit flag.	3B20/21D only.
0x4ac	invalid opercode in maintenance message.	
0x4ae	unexpected maint interrupt.	3B20/21D only.
0x4b3	dtchintr() function call failed.	3B20/21D only.
0x4b6	maintenance work timed out	
0x4b8	unexpected timeout	
0x550	physical device file not opened	
0x556	iolock() function call failed.	3B20/21D only.
0x55b	getjobid() function call failed.	3B20/21D only.
0x573	this physical device file already open	
0x575	RID to UCB conversion failed	
0x57a	update of device file variables failed	
0x585	uniolock() function call failed.	3B20/21D only.
0x5a0	command to BIC failed.	3B20/21D only.
0x5a5	command to PIC failed.	3B20/21D only.
0x5aa	clear of DDSBS failed.	3B20/21D only.
0x5bc	read status of BIC failed.	3B20/21D only.
0x5c5	progio() cmdtype not defined.	3B20/21D only.
0x600	requested maintenance message is not a unit remove	
0x60e	CONFIG chgstate() call failed	
0x613	dtchintr() failed.	3B20/21D only.
0x615	failed to get timer	
0x678	RID to UCB LLA call failed.	
0x6bf	rstdcis() - invalid argument	
0x6c0	RID to UCB conversion failed	
0x6c1	Cannot restore from GROW state.	3B21E only
0x6c3	chgstate() function call failed	
0x6c5	initmem3() function call failed	
0x6c8	initmem5() function call failed.	3B20/21D only.
0x6ce	progio() function call to clear DDSBS failed.	3B20/21D only.
0x6d1	progio() (BIC init and PIC reset) failed.	3B20/21D only.
0x6d3	enabintr() function call failed.	3B20/21D only.
0x6d5	sysgen() function call failed.	3B20/21D only.

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CODE	COMMENT	PLAFORM
0x6d5	Could not send "go online" command.	3B21E only.
0x6d7	version of SUN and 3B driver are not same.	3B20/21D only.
0x6d8	sysgen() function returned fail.	3B20/21D only.
0x6df	dciserv() function call failed.	3B20/21D only.
0x6e2	dciserv() function returned fail.	3B20/21D only.
0x6e2	"go online" command failed.	3B21E only.
0x6e5	call to chgstate() failed	
0x6ea	RID to UCB conversion failed	
0x6eb	failed to get timer.	3B20/21D only.
0x6ef	invalid DCI restore sequence number	
0x760	progio(set BIC IFEN flag) failed.	3B20/21D only.
0x761	Job Inventory table corrupted.	3B20/21D only.
0x762	resume pio failed.	3B20/21D only.
0x763	base queue no longer full.	3B20/21D only.
0x765	progio(SYSGEN cmd to PIC) failed.	3B20/21D only.
0x770	job timed out.	3B20/21D only.
0x771	Failed to queue heartbeat job	
0x773	VDCI job timeout.	3B21E only.
0x778	Heartbeat job timed out	
0x77b	Too many heartbeat timeouts, VDCI will be removed.	3B21E only.
0x77e	Removed DCI, CU OFFLINE.	3B20/21D only.
0x77f	DCI usability audit failed.	3B20/21D only.
0x790	timing table full	
0x795	timeout request is out of range	
0x797	ONLINE job timed out	3B21E only.
0x798	Job Timeout unable to start I/O Assist	3B21E only.
0x799	Write job timed out, CANCEL_IO.	
0x79a	Open job timed out	
0x79b	Close job timed out	
0x79c	invalid jobtype timed out	
0x79d	READ job timed out, CANCEL_IO.	
0x79e	CANCEL_IO job failed.	3B21E only.
0x79f	CANCEL_IO failed because job queue is full.	3B21E only.
0x801	Removing job that is not in use.	3B20/21D only.
0x949	Invalid segment size requested.	3B20/21D only.
0x94c	Fail to get segment index for new segment.	3B20/21D only.
0x951	Fail to allocate a message buffer.	3B20/21D only.
0x953	Fail to allocate a message buffer.	3B20/21D only.
0xaca	atchintr() function call failed.	3B20/21D only.
0xce2	DCI device not online	
0xce4	IO job failed because job queue is full.	3B21E only.
0xce8	DCI sndcmd: job queue full.	3B20/21D only.
0xcea	failed to get job id.	3B20/21D only.
0xceb	invalid cmd type	
0xced	IO job failed.	3B21E only.
0xdeb	invalid cmd type.	3B20/21D only.

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ID . . . . . APP-DCI-APPB-A
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

This appendix contains a table describing the DCI driver special completion codes, which are applicable for autonomous response output messages.

All error codes are in hexadecimal notation.

Table 1 - Autonomous Response Special Completion Code

Code	Definition
3	SYSGEN command completed. The DCI is reporting the completion of a SYSGEN command. The job id code for the SYSGEN command is zero by design.
5	DCI idle. This is in response to a SUN driver initiated ABORT sequence, simply indicating that the DCI was idle when the SUN driver sent abort command.
6	Illegal command. The DCI received a bit pattern in the command field which it could not decode.
7	DCI Autonomous Error. When BIC reports software error during data transfer, the Sun driver aborts the data transfer if it is in progress.

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ID . . . . . APP-DCI-APPC
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

DSCH STATUS LAYOUT

BIT	DESCRIPTION	
00	Low return code	*
01	Low return code	* high 3 bits
02	Low return code	*
03	High return code	*
04	High return code	* high 3 bits
05	High return code	*
06	Channel busy f-f	
07	I/O inhibit override f-f	
08	Sequencer error	
09	Illegal 3 out of 6 device address	
10	Command error	
11	Channel error (or of previous command)	
12	Maintenance f-f	

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ID . . . . . APP-DCI-APPD
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

D2SBS STATUS LAYOUT

BIT	DESCRIPTION
00	Device reported error
01	Overflow error
02	Sequencer error
03	Illegal D2SBS command
04	Maintenance f-f
05	Device interrupt request
06	Device setup request
07	Device transfer request

ID . . . . . APP-DCI-APPE
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

BIC STATUS LAYOUT

BIT	DESCRIPTION	
00	Unit address	
01	Unit address	
02	Unit address	
03	Unit address	
04	DMA setup overwrite	*
05	PBI parity error - byte 0	*
06	PBI parity error - byte 1	*
07	PBI parity error - byte 2	*
08	PBI parity error - byte 3	*
09	EOD error	* ERROR
10	PIC fatal error summary	* FLAGS
11	PIC sanity error	*
12	PIC data bus parity error - lo byte	*
13	PIC data bus parity error - hi byte	*
14	Data FIFO overflow / underflow	*
15	Command register overflow	*
16	FIFO word count	
17	FIFO word count	
18	FIFO word count	
19	FIFO word count	
20	FIFO word count	
21	Interrupt	
22	Transfer	
23	Setup	
24	EOD expected	
25	EOD received	

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BIC STATUS LAYOUT

BIT	DESCRIPTION
26	Transfer mode (0=WRD, 1=BLK)
27	Enable PIC data bus parity check
28	Interface enabled
29	Data flag (0=3B, 1=PIC)
30	Command in progress (CIP)
31	Command present flag (CP)

ID . . . . . APP-DCI-APPF
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

REMOVE/RESTORE PROCESS ERROR CODES

NOTE: These remove/restore process error codes are in hexadecimal notation.

CODE	DESCRIPTION
1	Cannot enable message reception
2	recvw function error
3	Cannot open spooler
4	Cannot open ECD manager
5	Cannot get UCB
6	UCB not for requested unit
7	Cannot get special device file
8	Cannot open special device file
9	Invalid command tag from DIAMON
a	Cannot reset reserve bit
b	sendw function error
c	Cannot set `u_tnum` in UCB
d	Request type from DIAMON not manual or auto
e	Cannot set `u_manrqst` in UCB
f	Cannot release special device file
10	Abort request made via DIAMON, reasons for abort request are by manual input by recovery process

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . APP-DCI-APPG
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

REMOVE/RESTORE STOPPED CODES

CODE	DESCRIPTION
1	Diagnostic had failures
2	ROS (power control switch) is off normal
3	Diagnostic request only, not remove or restore
4	Unit is already active
5	Unit is already out of service
6	Unit is off-line
7	Unit is unavailable (forced)
8	Unit is in the `INIT` state
9	Unit is in the `GROWTH` state
a	Diagnostic abort, request denied
b	Unit is essential

ID . . . . . APP-DCI-APPH
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

FAULT CODES

NOTE: These fault codes are in hexadecimal notation.

No Fault

00	No fault (normal)

Peripheral Faults - With Accompanying Message

b1	Device reported error - device implicated - pio in progress
b2	Parity divert error - device implicated - pio in progress
b3	Channel error - device not implicated but possibly affected - pio in progress
b4	Device reported error - device implicated
b5	DMA addressing error - device implicated
b6	DMA used OOR address - device implicated
b7	Channel error - device not implicated but possibly affected

Peripheral Faults - Without Accompanying Message

b8	Device reported error - cannot identify unit
b9	Parity divert error - cannot identify unit
ba	Addressing error - cannot identify unit

Configuration Manager Fault Codes - With Accompanying Message

c3	Informative - excessive recoverable errors
c4	Remove directive - excessive errors
c5	Remove request - attempt restoral of oos usable unit
c6	Limp mode - attempt restoral of oos unusable unit
c7	Limp mode - no replacement avail
c8	Manual remove
c9	Unconditional remove
cc	Config. manager remove under fault conditions

Software Errors - No Accompanying Message

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d1	Memory Management - page invalid or not in memory
d3	Memory Management - segment invalid
d4	Memory Management - segment index too large
d5	Illegal operating system trap (OST)
d6	Protection violation
d7	Byte or halfword addressing violation
d8	Instruction privilege violation
d9	Illegal op code

System Initialization - No Accompanying Message

e1	Substantial system recovery has occurred

Message Buffer Audit Faults

bc	Message buffer audit fault for queued error messages
bd	Message buffer audit fault for non-queued error messages

ID . . . . . APP-DFC-APPA-A
GENERIC . . . . . UNIX RTR R1.5 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

DKDRV Error / Warning Codes

NOTE: These error / warning codes are in hexadecimal notation.

`005` Branch to virtual address 0 detected.
`010` No inventory room - restructure disk driver (DKDRV).
`020` Just report failure.
`030` Access to bus interface controller (BIC) failed.
`035` Desired BIC status not obtained.
`040` Input / Output (I / O) job has no associated I / O message.
`045` Message type not IOREAD or IOWRITE.
`04a` No job found in inventory data.
`055` Job reported error.
`05a` Response contains job ID not in use.
`060` Response specified an unknown device.
`06f` Driver status error.
`075` Special queue full.
`076` `queuejob` failed.
`077` `spqjobid` failed.
`07a` `intpwait` function failed.
`090` `Dfcpump` base queue full.
`092` `Dfcpump getjobid` failed.
`094` `Dfcpump queuejob` failed.
`096` `Dfcpump intpwait` function failed.
`098` `Dfcpump special` queue full.
`09a` `Dfcpump spqjobid` failed.
`09c` `Dfcpump queuejob` failed.
`09e` `Dfcpump intpwait` function failed.
`0a0` `initmem1()` failed.
`0a5` Disk file controller (DFC) restore failed.
`0aa` Moving head disk (MHD) marked `S_ACT` but DFC not marked `S_ACT`.
`0b0` Simplex MHD restore failed config denied removal.
`0b1` Simplex MHD restore failed config OKed removal.
`0b5` MHD restore failed and no `S_ACT` mate.
`0c0` `initkint` (intr detach / attach) failed.
`0c5` `DKDRV` timing chain index 0 already assigned.
`0cf` Duplicate fields in the msg do not match.
`0d0` `DMA_OK` flag not set in msg.
`0d5` Byte offset not on word boundary.
`0e0` Unknown `ACK` message received.
`0e1` Power switch monitor (PSM) sent a bad power transmission message.

SEE PROPRIETARY NOTICE ON COVER PAGE

0e5 Unrecognizable message type.
0ea maint job failure - see DKDRV error report.
0ee temmmmmp.
0ef temp msg - old msg returned.
0f0 Incorrect swap LOG_REC RID from ECDORG.
0f1 Incorrect SWAP MDCT RID.
0f2 dlm indicator msg alloc failed (to SIM).
0f3 Can't update the ROOT/SWAP device table.
0f4 dlm indicator msg alloc failed (to DKDIP).
0f6 dlm indicator msg alloc failed (to DKDIP).
0f8 dlm indicator msg alloc failed (to DKDIP).
0fa Could not get a CDLM timer entry.
0fb dlmstrt ost returned SWFAIL.
0fd Microstore limpmode flag set.
0fe Bad return from dlmstrt.
0ff Invalid opercode in util message.
100 Power down of a non-out of service (OOS) unit.
101 DFC power down msg received - unit still usable.
102 MHD power down msg received - unit still usable.
103 dlm indicator msg alloc failed.
105 Special priority queue full.
106 Queuejob failed.
107 Spqjobid failed.
10a intpwait function failed.
110 No volume table of contents (VTOC) on disk pack.
113 VTOC too large for DKDRV to handle.
116 Invalid partition number in vtoc entry.
119 Invalid partition number in msg.
130 DFCDRV should not see this type job.
135 DFCDRV should not see this type job.
13a Illegal command type.
140 v. addr does not map into segment no.
145 iolock() failed.
14a uniolock() failed.
160 Record identification number (RID) to unit control block (UCB) low level access (LLA) call failed.
165 RID update and release failed.
16a RID unknown by DKDRV.
170 RID to UCB LLA call failed.
175 RID update and release failed.
17a RID to UCB LLA call failed.
180 RID update and release failed.
185 RID to UCB LLA call failed.
18a RID update and release failed.
190 Invalid inhibit administration opcode.
1a0 dtchintr call returned fail.
1a5 atchintr call returned fail.
1aa enabintr call returned fail.
1b0 Equipment configuration data base (ECD) attach failed.
1b1 DLM INIT failed.

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`1b5` `CONFIG OPEN` failed.
`1ba` `atchdata` call to ECD failed.
`1c0` No DFCs in ECD.
`1c5` DFC growth failed.
`1ca` `downucbs` ECD call failed.
`1d0` MHD growth failed.
`1d5` Too many devices.
`1da` RID to UCB conversion failed.
`1e0` Device not DFC or MHD.
`1e5` RID update and release failed.
`1ea` Device is unequipped.
`1f0` Channel RID to UCB conversion failed.
`1f5` DFC RID to UCB conversion failed.
`1fa` No DKDRV memory allocated for DFC.
`200` No DKDRV memory allocated for MHD.
`205` Memory initialization failed.
`20a` DKDRV port attach failed.
`210` `getpta()` function failed.
`215` RID to UCB conversion failed.
`21a` `idmadev()` (write to DMAC RAM) failed.
`220` `atchintr` call failed.
`222` RID not known to DKDRV.
`224` DFC being degrown is being used.
`225` Update of DKDRV local DFC UCB failed.
`226` DFC being degrown not UNEQIP.
`22a` MHD being degrown is being used.
`22b` Update of DKDRV local MHD UCB failed.
`22c` MHD being degrown not UNEQIP.
`230` RID to UCB conversion failed.
`231` RID update and release failed.
`232` Drive type in ECD does not agree with backplane - restore aborted. For SMD MHDs with UCB device_id field = 0 (first MHD on DFC, usually MHD 0 or 1): MHD type read from DFC backplane may not agree with MHD UCB equipage field or may not be read correctly by DFC TN65 or UN64 board.
`233` RID to UCB conversion failed.
`234` RID update and release failed.
`240` Delay (failed to find intr set in BIC).
`250` Job complete code == fail.
`260` Incorrect minor device chain table (MDCT) from I/O message.
`263` Warning - enlarge DKDRV's internal MDCT.
`265` Growth of device failed.
`26a` No RIDs in ECD MDCT.
`26c` Disk specific write not allowed.
`26f` No `S_ACT` device - open.
`270` No `S_ACT` device - read.
`275` Invalid partition number in read msg.
`27a` Unable to inventory job.
`27d` `bhqjobid` failed.
`280` `io_blk` exceeds partition size - read.
`290` No `S_ACT` device - write.

295 Invalid partition number in write msg.
29a Tried to write into protected partition.
2b1 No job ID's left.
2ba Unable to inventory all jobs.
2c0 `io_blk` exceeds partition size - write.
305 Unrecognizable DKDRV internal job type.
320 Boot indicator msg allocation failed.
325 INIT entry failed.
32a Unexpected event.
341 Failed to restart driver.
34b Old nonqueued audit error message.
34c Msg buffer audit error - abort maint on this unit.
350 Unexpected fault code.
351 Critical hit - `S_RSP`.
352 Critical hit - `S_MSG`.
353 Driver state error.
362 `ss32b()` failed.
365 PIC never reset `CMD IN PROG` flag.
367 `progio` (D2SBS clear) failed.
36a `progio` (BIC init & PIC reset) failed.
370 `initmem5` (DMAC RAM init) failed.
375 `enabintr` function failed.
37a `progio` (send ABORT cmd to PIC) failed.
380 `progio` (set BIC IFEN flag) failed.
385 Unknown RID faulted.
38a PIO lost for a unit.
390 Unknown RID faulted.
391 Invalid `pdfptr`.
392 Invalid `pdfptr`.
393 Unexpected fault code.
395 RID to UCB LLA call failed.
397 `msg alloc` failed (to file manager (FMGR)).
398 Could not get a timer entry for FMGR.
39a `timereq()` failed -`dfcinit`.
39b Operational problems - major reinitialization.
39d Warning - queue full detected.
3a0 Invalid `dfcinit()` sequence.
3a3 Can't identify panic dump device.
3a6 Incorrect `PANIC DUMP RID`.
3a9 `ss32b()` failed.
3ac PIC never reset `CMD IN PROG` flag.
3af `progio` (D2SBS clear) failed.
3b0 `progio` (BIC init & PIC reset) failed.
3ba Failed to clear `BIC INTP`.
3bc `kint` - stray interrupts detected.
3d0 Device file not open.
3d5 DKDRV has aborted client.
3da Invalid maintenance state.
3e0 Request prohibited on `S_ACT DFC`.
3e5 `Maint attach intr` failed.

3ea `Maint enable intr` failed.
3f0 UCB is not a DFC.
3f5 Direct memory access controller (DMAC) ram init failed.
3fa `Detach/attach/enable intr` failed.
400 `Detach intr` failed.
405 CONFIG denied request to remove unit.
40a MHD restore `NG` not `S_ACT`.
40b `compare/correct` - unit not a disk.
40c `compare/correct` - `DFC` not `S_ACT`.
40d May not `compare/correct` a `S_INIT` unit.
410 May only restore `S_OOS` units.
412 DFC restore `NG` device.
414 May only restore `S_OOS` units.
415 `DIAG SYSGEN pio` failed.
41a UCB is not a DFC UCB.
420 Not allowed to DGN an `S_ACT` unit.
426 Special queue full.
427 `queuejob` failed.
428 `spqjobid` failed.
430 `getdmaa` function failed.
435 Received `WSETUP0` before `SPECDMA`.
43a `WSETUP1` received before `WSETUP0`.
440 `uniolock` failed.
450 `getdmaa` function failed.
455 `queuejob` failed.
456 Base queue full.
457 `bhqjobid` failed.
458 Version job failed.
45a RID not known by DKDRV.
460 `FORMAT` requires non-`S_ACT MHD`.
465 `FORMAT/VERIFY` requires `S_ACT DFC`.
467 MHD usability changed because of INIT operation.
46a `VERIFY` in progress - retry later.
470 Start track > last track.
475 Base queue full.
476 `bhqjobid` failed.
477 `queuejob` failed.
47a Another process has device file open.
480 Invalid when MHD is `S_ACT`.
485 DFC must be `S_ACT`.
48a Invalid when MHD is `S_ACT`.
490 DFC must be `S_ACT`.
495 REMAP `dskserv()` failed.
496 Device major status update failed.
499 Request is not for `MOD_0` - job failed.
4a0 Base queue full.
4a3 Unable to queue LM job.
4a5 No base / high job ID's left.
4a7 Failed to get page table address.
4a9 No job ID's left for base / high Q.

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`4b0` Invalid opercode in maintenance message.
`4b5` Unexpected maint interrupt.
`4ba` `dtchintr` call failed.
`4c0` `maint. work` timed out.
`4d0` `readvtoc()` function failed.
`4d5` `readvtoc` job failed.
`4da` VTOC sort function failed.
`4e0` Invalid `newvtoc()` sequence.
`4e5` Partition number out of range for DKDRV.
`4e8` Partition number out of range for VTOC.
`500` Tried to use invalid VTOC.
`505` Invalid partition number in msg.
`508` Invalid blk in ptn.
`50a` Unable to inventory job.
`50c` Base queue full.
`50d` `bhqjobid` failed.
`510` Invalid blk on disk.
`520` Tried to use invalid VTOC.
`525` Tried to write into protected partition.
`528` Invalid partition number in msg.
`530` Invalid blk in ptn.
`532` Invalid blk on disk.
`535` Unable to inventory job.
`536` Base queue full.
`537` MHD usability changed because of `pdfwrite` job.
`538` `bhqjobid` failed.
`550` Physical device file not opened.
`555` Can't write to read only (RO) disk.
`55a` `iolock` failed.
`55b` `getjobid` failed.
`56a` DISK read or write requires active DFC.
`570` This physical device file already open.
`575` Device major status update failed.
`57a` Update of device file variables failed.
`580` May not maint write ACT device.
`585` `uniolock` failed.
`5a0` Command to BIC failed.
`5a5` Command to peripheral interface controller (PIC) failed.
`5aa` Clear of duplex dual serial bus selector (DDSBS) failed.
`5b0` Read status of DDSBS failed.
`5b5` Read of BIC first-in, first-out (FIFO) failed.
`5ba` Write of BIC FIFO failed.
`5c0` Read status of BIC failed.
`5c5` `progio cmdtype` not defined.
`5d0` `progio` (RDSTAT command to PIC) failed.
`5d5` `progio` (rd wd from BIC FIFO) failed.
`5e0` Queuejob failed.
`5e1` Base queue full.
`5e2` `getjobid` failed.
`5ec` `intpwait` function failed.

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5f0 Readdisk queuejob failed.
5f1 Readdisk basequeue full.
5f2 Readdisk getjobid failed.
5fc Readdisk intpwait function failed.
600 CONFIG chgstate() call failed.
602 Excessive errors, device being reset.
603 MHD work terminated, DFC going S_OOS.
615 dtchintr() failed.
62a dskserv(OFFLINE) function failed.
630 dskserv(OFFLINE) job failed.
650 RID to UCB LLA call failed.
655 RID to UCB LLA call failed.
65a RID to UCB LLA call failed.
660 RID to UCB LLA call failed.
665 RID to UCB LLA call failed.
66a RID to UCB LLA call failed.
670 RID to UCB LLA call failed.
675 RID to UCB LLA call failed.
67a RID to UCB LLA call failed.
680 RID to UCB LLA call failed.
685 RID to UCB LLA call failed.
68a RID to UCB LLA call failed.
68c RID to UCB LLA call failed.
68d RID to UCB LLA call failed.
68e RID to UCB LLA call failed.
68f RID to UCB LLA call failed.
6a9 Retry PIO failed.
6aa Failed to requeue job.
6b0 Remake: job ID not in use.
6b5 Remake: bad msg type.
6c0 CONFIG chgstate call failed.
6c1 Unable to change usable bit for DFC.
6c5 DKDRV DFC memory init failed.
6ca initmem5() (DMAC init) failed.
6d0 initmem6() (atchintr) failed.
6d5 progio (D2SBS clear) failed.
6da progio (BIC init & PIC reset) failed.
6db dfc_vers function failed.
6dd dfc_vers job failed.
6e0 enabintr() failed.
6e5 SYSGEN function failed.
6ea sysgen job failed.
6f0 dfcserv(ONLINE) function failed.
6f5 dfcserv(ONLINE) job failed.
6fa CONFIG chgstate call failed.
6fc Unable to change usable bit for DFC.
700 Invalid DFC restore sequence number.
702 Unable to change usable bit for MHD.
703 Unit is in full DLM - abort restore.
704 Mate unit is in full DLM - abort restore.

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705 CONFIG `chgstate` call failed.
70a DKDRV MHD memory init failed.
70b `readdisk()` function failed.
70c `Disk job (readdisk)` failed.
710 `dskserv(ONLINE,RSTJOB)` function failed.
715 DFC failed to put MHD online.
71a `readvtoc()` function failed.
720 `Disk job (readvtoc)` failed.
725 VTOC integrity check failed.
72a CONFIG chgstate call failed.
72c Unable to change usable bit for MHD.
730 Invalid MHD restore sequence number.
732 Invalid MHD compcor sequence number.
73a Maintenance state audit requested.
750 `rdstat(JPEND)` function failed.
760 `progio` (set BIC IFEN flag) failed.
761 Wakeup pio failed.
762 Resume pio failed.
765 `progio` (send SYSGEN cmd to PIC) failed.
76a `intpwait` function failed.
770 Job timed out (40 second).
775 DFC timed out (2 second).
77a DFC entering overload.
77c DFC leaving overload.
77f DFC usability audit failed.
790 Timing table full.
795 Timeout request is out of range.
7a0 Audit - queue full error.
7c0 No job ID's left for base / high Q.
7c1 No job ID's left for special Q.
7c2 No base / high job ID's left.
800 `/prc/s_update` terminated abnormally.
801 `/prc/s_dskutil` terminated abnormally.
805 Invalid disk lock process.
825 Could not `alloc` msg buf.
830 Could not `pcreat` process.
835 Could not `alloc` msg buf.
900 DKDIP pid is null.
903 `alocmsg` failed.
999 RID to UCB LLA call failed.
a01 `s_update` started.
a0a Bad MAINT msg opercode.
a15 Can't open ECD.
a1a Can not get specified unit UCB.
a20 Specified unit UCB not reserved.
a25 Failed to get "TO" unit SDF.
a2a Open of "to" SDF failed.
a30 `ugucbm()` failed.
a35 No active mate found.
a3a Failed to reserve active mate UCB.

`a40` Failed to get "FROM" unit SDF.
`a45` Open of "from" SDF failed.
`a48` Can't read VTOC on active disk.
`a4a` Invalid VTOC on active disk.
`a50` Not able to make `s_update` unswappable.
`a55` Asynchronous write failure.
`a5a` Asynchronous write failure.
`a60` VTOC read (SRC disk) failed.
`a65` VTOC write (dst disk) failed.
`a6a` Too many partitions.
`a70` Block number not within VTOC.
`a75` Primary BBOOT partition is INVALID.
`a7a` Backup BBOOT partition is INVALID.
`a80` Tried to access unopened file.
`a85` `segoff` failure.
`a8a` `movetrap` failure.
`a90` Disk read error.
`a95` Disk read error - correctly reread.
`a9a` Invalid file descriptor.
`aa0` `IOQUEUEM` failure.
`aa5` Maintenance job to DKDRV failed.
`aaa` Received application abort restore request.
`ab5` Invalid argument.
`aba` `segname` already exists.
`ac0` Segment exists.
`ac5` No segments available.
`aca` Not enough space.
`ad0` Bad `segndx`.
`ad3` Can't find a free `segindex`.
`ad5` `segoff` failure.
`ada` Driver startup msg not received.
`ae0` Terminated externally.
`ae5` Invalid `U_ABRTRST` msg.
`aea` Invalid maintenance msg.
`af0` Unknown ack msg.
`af5` Process was faulted.
`b01` `s_dskutil` started.
`b06` Can not connect to port `PT_DSKUTL`.
`b09` Bad MAINT msg opercode.
`b10` Can't open ECD.
`b13` "DEST" unit not specified.
`b16` `ugucbm()` failed for "DEST" unit.
`b19` Can not get "DEST" unit UCB.
`b1c` "DEST" unit UCB not reserved.
`b20` Failed to get "TO" unit SDF.
`b23` Open of "TO" SDF failed.
`b26` Dup of "TO" SDF failed.
`b29` `ugetucb()` failed for "FROM" unit.
`b36` Failed to reserve "FROM" unit UCB.
`b39` Failed to get "FROM" unit SDF.

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b3c Open of "FROM" SDF failed.
b40 Remove mate of "DEST" unit and reenter command.
b46 Dup of "FROM" SDF failed.
b48 Failed to read VTOC on "TO" disk.
b49 Invalid VTOC on "TO" disk.
b4b Failed to read VTOC on "FROM" disk.
b4c Invalid VTOC on "FROM" disk.
b50 Both VTOCs don't match.
b53 Not able to make `s_dskutil` unswappable.
b5c Read failure (DEST disk).
b60 Read failure (SRC disk).
b63 Too many partitions.
b66 VTOCs don't match in size.
b69 sync write failure (DEST disk).
b6c Block number not within VTOC.
b70 Block number not within VTOC.
b73 Block number not within VTOC.
b80 Tried to access unopened file.
b85 `segoff` failure.
b8a `movetrap` failure.
b90 Disk read error.
b95 Disk read error - correctly reread.
b9a Invalid file descriptor.
ba0 `IOQUEUEM` failure.
ba5 Maintenance job to DKDRV failed.
baa Received application abort restore request.
bb5 Invalid argument.
bba `segname` already exists.
bc0 Segment exists.
bc5 No segments available.
bca Not enough space.
bd0 Bad `segndx`.
bd3 Can't find a free `segindex`.
bd5 `segoff` failure.
bda Driver startup msg not received.
be0 Terminated externally.
be5 Invalid `U_ABRTRST` msg.
bea Invalid maintenance msg.
bf0 Unknown ack msg.
bf5 Process was faulted.

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ID . . . . . APP-DFC-APPA-B
GENERIC . . . . . UNIX RTR R6.4 Only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

DKDRV Information Codes

NOTE: These information codes are in hexadecimal notation.

`005` Branch to virtual address 0 detected.
`010` No inventory room - restructure DKDRV.
`020` Report failure.
`030` Access to BIC failed.
`035` Desired BIC status not obtained.
`039` IO job has no associated IO message.
`040` IO message "ms_to" field is invalid.
`045` Message type not IOREAD or IOWRITE.
`04a` No job found in inventory data.
`050` Invalid completion code returned by DFC.
`055` Job reported error.
`05a` Response contains job ID not in use.
`060` Response specified an unknown device.
`06f` Drive status error.
`070` Special queue full.
`073` `spqjobid` failed.
`076` `queuejob` failed for DFC change maintenance mode command.
`07a` `intpwait` function failed for DFC change maintenance mode.
`07c` Special queue full for SBUS change mode job.
`07e` `spqjobid` failed for SBUS change mode command.
`082` `queuejob` for SBUS change maintenance mode failed.
`085` `intpwait` function failed for SBUS change maintenance mode.
`098` DFC version command: special queue full.
`09a` DFC version command: `spqjobid` failed.
`09c` Version command fail.
`09e` `dfc_vers: intpwait` function failed.
`0a0` `initmem1()` failed.
`0a2` Timeout request to get DIOP feature level failed.
`0a3` DKDRV timing chain index 0 already assigned.
`0a4` Failed to read `btparm` record.
`0a5` No mate for boot device found.
`0a8` DFC restore failed during boot.
`0ab` Fail to change the usable bit for SBUS.
`0af` MHD marked `S_ACT` but DFC not marked `S_ACT`.
`0b1` MHD marked `S_ACT` but SBUS not marked `S_ACT`.
`0b3` Simplex MHD restore failed config denied removal.
`0b5` Simplex MHD restore failed config OKed removal.

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0b8 MHD restore failed and no S_ACT mate.
0c0 initkint (interrupt detach / attach) failed.
0c3 Fail to request pump after boot.
0c6 Invalid MHD to be restored during boot.
0c9 Invalid mate MHD.
0cf Duplicate fields in the message do not match.
0d0 DMA_OK flag not set in message.
0d5 Byte offset not on word boundary.
0d7 Maintenance job failure - see DKDRV error report.
0d9 PSM sent a bad power transition message.
0db temp message - old message returned.
0dd Unknown maintenance ACK received.
0df Unrecognizable message type.
0e2 Unrecognizable device.
0e5 Unknown FMGR ACK message received.
0e6 Segment removed failed, pump buffer retained.
0e8 Unknown MMGR ACK message received.
0ec Unknown DKDRV ACK message received.
0ef Unknown ACK message received.
0f0 Incorrect swap LOG_REC RID from ECDORG.
0f1 Incorrect SWAP MDCT RID.
0f2 Can't update the ROOT / SWAP device table.
0f3 dlm indicator msg alloc failed (to SIM).
0f4 dlm indicator msg alloc failed (to DKDIP).
0f6 dlm indicator msg alloc failed(to DKDIP).
0f8 dlm indicator msg alloc failed(to DKDIP).
0fa Could not get a CDLM timer entry.
0fb dlmstrt ost returned SWFAIL.
0fd microstore limpmode flag set.
0fe Bad return from dlmstrt.
0ff Invalid opercode in util message.
100 Power down of a non-OOS unit.
101 DFC power down message received - unit still usable.
102 MHD is powered down - abort client.
103 MHD power down message received - unit still usable.
104 dlm indicator msg alloc failed.
105 Special priority queue full.
106 queuejob failed.
107 spqjobid failed.
10a intpwait function failed.
110 No VTOC on disk pack.
113 VTOC too large for DKDRV to handle.
116 Invalid partition number in VTOC entry.
119 Invalid partition number in message.
130 DFCDRV should not see this type job.
135 DFCDRV should not see this type job.
13a Illegal command type.
140 Virtual address does not map into segment number.
145 iolock() failed.
14a uniolock() failed.

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160 RID to UCB LLA call failed.
165 RID update and release failed.
16a RID unknown by DKDRV.
170 RID to UCB LLA call failed.
175 RID update and release failed.
17a RID to UCB LLA call failed.
180 RID update and release failed.
185 RID to UCB LLA call failed.
18a RID update and release failed.
190 Invalid inhibit administration opcode.
1a0 `dtchintr` call returned fail.
1a5 `atchintr` call returned fail.
1aa `enabintr` call returned fail.
1b0 ECD attach failed.
1b3 DLM INIT failed.
1b5 CONFIG OPEN failed.
1b8 atchdata call to ECD failed.
1bc No DFCs in ECD.
1be DFC growth failed.
1c3 downucbs ECD call failed.
1c6 SBUS growth failed.
1c9 downucbs ECD call failed.
1cc SCSI MHD growth failed.
1ce downucbs ECD call failed.
1d1 SCSI MHD growth failed.
1d3 Too many devices.
1d6 RID to UCB conversion failed.
1d8 Device not DFC or SBUS or MHD.
1dc RID update and release failed.
1de Device is unequipped.
1df Invalid DFC internal device ID.
1e1 Channel RID to UCB conversion failed.
1e3 Invalid SBUS internal device ID.
1e5 DFC RID to UCB conversion failed.
1e7 Invalid device ID for SCSI MHD.
1e9 SBUS RID to UCB conversion failed.
1eb Invalid SBUS internal device id.
1ed DFC RID to UCB conversion failed.
1ef Invalid device ID for SMD MHD.
1f2 DFC RID to UCB conversion failed.
1f4 Incorrect device type for the MHD's control unit.
1f8 Incorrect "u_mv" value in the UCB.
1fc Memory initialization failed.
1fe DKDRV port attach failed.
203 `getpta()` function failed.
206 RID to UCB conversion failed.
209 `idmadev()` (write to DMAC RAM) failed.
20c `atchintr` call failed.
20f RID not known by DKDRV.
213 DFC being degrown is being used.

216 Update of DKDRV local DFC UCB failed.
219 DFC being degrown not UNEQIP.
21c SBUS being degrown is being used.
21f Update of DKDRV local SBUS UCB failed.
223 SBUS being degrown not UNEQIP.
226 MHD being degrown is being used.
229 Update of DKDRV local MHD UCB failed.
22c MHD being degrown not UNEQIP.
22f RID to UCB conversion failed.
233 RID update and release failed.
236 Drive type in ECD does not agree with backplane - restore aborted.
239 RID to UCB conversion failed.
23a RID update and release failed.
23b RID to UCB conversion failed.
23c Get option block for DFC failed.
23d Invalid `eirflag` field in DFC option block.
23e Get option block for MHD failed.
240 Delay (failed to find interrupt set in BIC).
250 Job complete code == fail.
260 Incorrect MDCT from IO message.
263 Growth of device failed.
265 No RIDs in ECD MDCT.
268 Warning - enlarge DKDRV's internal MDCT.
26c Disk specific write not allowed.
26f No `S_ACT` device - open.
270 No `S_ACT` device - read.
275 Invalid partition number in read message.
278 Access to DIAG partition is not allowed - read.
27a Unable to inventory job.
27d `bhqjobid` failed.
280 `io_blk` exceeds partition size - read.
290 No `S_ACT` device - write.
295 Invalid partition number in write message.
29a Tried to write into protected partition.
2b1 No job IDs left.
2ba Unable to inventory all jobs.
2be Access to DIAG partition is not allowed - write.
2c0 `io_blk` exceeds partition size - write.
305 Unrecognizable DKDRV internal job type.
307 Unexpected denial of request to remove MHD.
308 Duplex operation compromised due to removing MHD.
320 Boot indicator message allocation failed.
325 INIT entry failed.
32a Unexpected event.
343 Failed to restart driver.
346 Old non-queued audit error message.
349 Unexpected fault code.
34c Critical hit - `S_RSP`.
34f Critical hit - `S_MSG`.
353 Driver state error.

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355 Calling `dfcinit()` for lack of "warm" restart.
356 `ss32b()` failed.
359 PIC never reset CMD IN PROG flag.
35f `progio` (D2SBS clear) failed.
363 `progio` (BIC initialization and PIC reset) failed.
366 `initmem5` (DMAC RAM initialization) failed.
369 `enabintr` function failed.
36c `progio` (send ABORT command to PIC) failed.
36f `progio` (set BIC IFEN flag) failed.
373 Unknown RID faulted.
376 PIO lost for a unit.
379 Unknown RID faulted.
37c Unexpected fault code.
37f Message buffer audit error - abort maintenance on this unit.
383 `timereq()` failed - `dfcinit()`.
391 invalid `pdfptr`.
392 invalid `pdfptr`.
395 RID to UCB LLA call failed.
397 Message alloc failed (to FMGR).
398 Could not get a timer entry for FMGR.
39b Major DFC reinitialization due to either operational problems or manual request.
39e Warning - queue full detected.
3a6 Invalid `dfcinit()` sequence.
3a9 Can't identify panic dump device.
3ac Incorrect PANIC DUMP RID.
3af `ss32b()` failed.
3b3 PIC never reset CMD IN PROG flag.
3b6 `progio` (D2SBS clear) failed.
3b9 `progio` (BIC initialization and PIC reset) failed.
3ba Failed to clear BIC INTP.
3bc `kint()` - stray interrupts detected.
3be `kint()` entered before `kfault()` after panic dump.
3d0 RID not known by DKDRV.
3d3 DKDRV has aborted client.
3d5 Invalid maintenance state.
3d8 Device file not open.
3dc Another process has device file open.
3de Request prohibited on `S_ACT` DFC.
3e1 `maint()` attach interrupt failed.
3e3 `maint()` enable interrupt failed.
3e5 UCB is not a DFC.
3e8 DMAC RAM initialization failed.
3ec Detach / attach / enable interrupt failed.
3ef Detach interrupt failed.
401 Device type is not SCSI.
403 Device type is not SCSI for explicit SCSI command.
404 DFC must be active.
405 DFC is not ACTIVE for SCSI command.
406 SBUS must be active.
407 SBUS is not ACTIVE for SCSI command.

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409 CONFIG denied request to remove unit.
40a Base queue full.
40b Time limit exceeds capability.
40c May only restore S_OOS units.
40d Failed to get job id.
40e MHD/SBUS restore no good - DFC not S_ACT.
40f queuejob failed.
412 MHD restore no good - SBUS not S_ACT.
415 Compare/correct - unit not a disk.
418 Compare/correct - DFC not S_ACT.
41b Compare/correct - SBUS not ACTIVE.
41d May not compare/correct a S_INIT unit.
41f DFC/SBUS restore no good - device not a DFC/SBUS.
422 May only restore S_OOS units.
425 SBUS restore - DFC is not ACTIVE.
428 DIAG SYSGEN PIO failed.
42a UCB is not a DFC UCB.
42c Not allowed to DGN an S_ACT unit.
42e Special queue full.
432 Invalid device to be diagnosed.
435 spqjobid failed.
438 queuejob failed.
43c getdmaa function failed.
43e Received WSETUP0 before SPECDMA.
442 WSETUP1 received before WSETUP0.
445 uniolock failed.
448 getdmaa function failed.
44c Invalid disk lock process.
44f Base queue full.
452 bhqjobid failed.
455 queuejob failed.
458 Version job failed.
460 FORMAT requires non-S_ACT MHD.
465 FORMAT/VERIFY requires S_ACT DFC.
468 INIT/VFY MHD - SBUS not S_ACT.
46a VERIFY in progress - retry later.
470 Start track/block greater than last track/block.
473 Base queue full.
476 bhqjobid failed.
479 MHD usability changed because of INIT operation.
47c queuejob failed.
480 Invalid when MHD is S_ACT.
483 DFC must be S_ACT.
486 Invalid when MHD is S_ACT.
489 DFC must be S_ACT.
48b REMAP dskserv() failed.
48d Device major status update failed.
48f Failed to initialize device status.
492 Base queue full.
494 Unable to queue LM job.

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`496` Invalid DFC type for DFC reset request.
`498` DFC is not ACTIVE to be reset.
`49a` Firmware is running - cannot reset DFC.
`49f` DFC type does not support pump.
`4a3` DFC is not ACTIVE for pumpcode downloading.
`4a6` Other pump in progress - retry later.
`4a9` Unable to queue pump job.
`4aa` Device must be non-ACT to initialize error message inhibit flag.
`4ac` Invalid opercode in maintenance message.
`4ae` Unexpected maintenance interrupt.
`4b3` `dtchintr` call failed.
`4b6` Maintenance work timed out.
`4b9` No base or high job IDs left.
`4bc` Failed to get page table address.
`4be` No job IDs left for base or high queue.
`4c2` Offset of the SCSI command is not on word boundary.
`4c5` Explicit SCSI command, response and data are not on the same segment.
`4c8` Base queue full for SCSI command.
`4ca` DFC not running `PUMPCODE`.
`4cb` Invalid second device for SCSI command.
`4cd` Unable to queue the SCSI command.
`4d0` `readvtoc()` function failed.
`4d5` `readvtoc()` job failed.
`4da` VTOC sort function failed.
`4e0` invalid `newvtoc()` sequence.
`4e5` Partition number out of range for DKDRV.
`4e8` Partition number out of range for VTOC.
`500` Base queue full for maintenance read.
`503` Tried to use invalid VTOC for maintenance read.
`505` Invalid partition number in message.
`508` Invalid block in partition.
`50a` Invalid block on disk.
`50c` `bhqjobid` failed for maintenance read.
`50e` Unable to inventory job for maintenance read.
`520` Base queue full for maintenance write.
`523` Tried to use invalid VTOC for maintenance write.
`526` Invalid partition number in message.
`529` Tried to write into protected partition.
`52c` Invalid block in partition.
`532` Invalid block on disk.
`537` MHD usability changed because of pdfwrite job.
`539` `bhqjobid` failed for maintenance write.
`53b` Unable to inventory job for maintenance write.
`550` Physical device file not opened.
`553` Cannot write to Read Only disk.
`556` `iolock` failed.
`55b` `getjobid` failed.
`55f` Maintenance I/O request to a non-disk device.
`56a` DISK read or write requires active DFC.
`56f` DISK read or write requires active SBUS.

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573 This physical device file already open.
575 Device major status update failed.
57a Update of device file variables failed.
580 May not maintenance write ACT device.
583 SDF prematurely closed during a restore.
585 `uniolock` failed.
5a0 Command to BIC failed.
5a5 Command to PIC failed.
5aa Clear of DDSBS failed.
5b0 Read status of DDSBS failed.
5b5 Read of BIC FIFO failed.
5ba Write of BIC FIFO failed.
5bc Read status of BIC failed.
5bf BIC command to read HA shadow register failed.
5c3 Read status of SCSI HA shadow register failed.
5c5 `progio` cmdtype not defined.
5d0 `progio` (RDSTAT command to PIC) failed.
5d5 `progio` (read word from BIC FIFO) failed.
5e0 `queuejob` failed.
5e1 Base queue full.
5e2 `getjobid` failed.
5ec `intpwait` function failed.
5f0 `Readdisk queuejob` failed.
5f1 `Readdisk` base queue full.
5f2 `Readdisk getjobid` failed.
5fc `Readdisk intpwait` function failed.
600 Excessive errors - device being reset.
603 SBUS work terminated - DFC going S_OOS.
609 MHD work terminated - DFC going S_OOS.
60c MHD work terminated - SBUS going S_OOS.
60e CONFIG `chgstate()` call failed.
613 `dtchintr()` failed.
615 `dskserv(OFFLINE)` function failed.
618 `dskserv(OFFLINE)` job failed.
61c `sbuserv(OFFLINE)` function failed.
61f `sbuserv(OFFLINE)` job failed.
650 RID to UCB LLA call failed.
653 RID to UCB LLA call failed.
655 RID to UCB LLA call failed.
658 RID to UCB LLA call failed.
65c RID to UCB LLA call failed.
65e RID to UCB LLA call failed.
661 RID to UCB LLA call failed.
663 RID to UCB LLA call failed.
666 RID to UCB LLA call failed.
667 RID to UCB LLA call failed.
669 RID to UCB LLA call failed.
66c RID to UCB LLA call failed.
66f RID to UCB LLA call failed.
671 RID to UCB LLA call failed.

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673 RID to UCB LLA call failed.
675 RID to UCB LLA call failed.
678 RID to UCB LLA call failed.
67a EIR contains job ID not in use.
67b RID to UCB LLA call failed.
67c RID to UCB LLA call failed.
67e RID to UCB LLA call failed.
682 RID to UCB LLA call failed.
6a9 Retry PIO failed.
6aa Failed to requeue job.
6b0 Remake: job ID not in use.
6b5 Remake: bad message type.
6c0 Unable to change usable bit for DFC.
6c3 CONFIG chgstate call failed.
6c5 DKDRV DFC memory init failed.
6c8 `initmem5()` (DMAC init) failed.
6ca `initmem6()` (atchintr) failed.
6ce `progio` (D2SBS clear) failed.
6d1 `progio` (BIC initialization and PIC reset) failed.
6d3 `enabintr()` failed.
6d5 SYSGEN function failed.
6d8 `sysgen` job failed.
6db `dfc_vers` request function failed.
6dd `dfc_vers` job failed.
6df `dfcserv(ONLINE)` function failed.
6e2 `dfcserv(ONLINE)` job failed.
6e5 CONFIG chgstate call failed.
6e8 Unable to change usable bit for DFC.
6eb Cannot request a timer for pump after DFC restore.
6ef Invalid DFC restore sequence number.
6f2 Unit is in FULL DLM - abort restore.
6f5 Mate unit is in FULL DLM - abort restore.
6f8 Unable to change usable bit for MHD.
6fb CONFIG chgstate call failed.
6fe DKDRV MHD memory initialization failed.
701 `readdisk()` function failed.
703 Disk job `(readdisk)` failed.
706 `dskserv(ONLINE,RSTJOB)` function failed.
709 DFC failed to put MHD on-line.
70c `readvtoc()` function failed.
70e Disk job `(readvtoc)` failed.
711 VTOC integrity check failed.
713 CONFIG chgstate call failed.
715 Unable to change usable bit for MHD.
718 Invalid MHD restore sequence number.
71c CONFIG chgstate call failed.
71e `sbuserv(ONLINE)` function failed.
722 `sbuserv(ONLINE)` job failed.
725 CONFIG chgstate call failed.
728 Unable to change usable bit for SBUS.

72c Invalid SBUS restore sequence number.
730 Maintenance state audit requested.
732 Invalid MHD "compcor" sequence number.
750 rdstat(JPEND) function failed.
760 progio (set BIC IFEN flag) failed.
761 Wakeup PIO failed.
762 Resume PIO failed.
765 progio (send SYSGEN command to PIC) failed.
76a intpwait function failed.
770 Job timed out (40 * second).
775 DFC timed out (2 second).
776 Invalid pump state.
778 Cannot request timer for DFC pump.
77a DFC entering overload.
77c DFC leaving overload.
77f DFC usability audit failed.
790 Timing table full.
795 Timeout request is out of range.
7a0 Audit - queue full error.
7c0 No base or high job IDs left.
7c3 No job IDs left for base or high queue.
7c5 No job IDs left for special queue.
800 prc/s_update terminated abnormally.
801 prc/s_dskutil terminated abnormally.
825 Could not alloc msg buf.
830 Could not pcreat process.
835 Could not alloc msg buf.
900 DKDIP pid is null.
903 alocmsg failed.
906 Failed to remove the segment.
909 Cannot pump - other pump in progress.
90c Invalid DFC state for pump.
90e Cannot perform pump at this time.
911 DFC is not S_ACT for pump.
913 Invalid global pump state.
916 DFC is scheduled for major reinitialization - can't pump.
919 Pump not started - DFC is reserved.
91c Failed to allocate message for FMGR.
91e File stat error.
91f Pump-file is zero byte in size.
921 Pump-file is not a contiguous single extent file.
923 Can't get segnum.
926 Fail to queue the pump request.
929 Can't get segnum.
92c Fail to determine pump type.
92d Can't get segnum for DKDRV's internal pump buffer.
92e Failed to download the pumpcode.
931 Request to read pump-file failed.
933 Failed to read pump-file.
936 Failed to send the pump request.

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939 Pump failed at last pump.
93c Failed to queue a version command in pump procedure.
93e Pumpcode version command failed.
93f Failed to start new pump.
943 Invalid pump sequence.
946 Invalid MDCT RID for pump file.
949 Invalid segment size requested.
94c Failed to get a segment index for new segment.
94e Failed to get a segment number for new segment.
951 Failed to allocate a message buffer.
953 Failed to allocate a message buffer.
956 Can't `iolock` the buffer.
959 Can't allocate the message buffer for reading pumpfile.
95c Can't send the I/O message.
95f DFC pump: high priority queue full.
963 DFC pump: base priority queue full.
966 DFC pump: `getjobid` failed.
969 DFC pump: `queuejob` failed.
96c Can't remove the segment used for pump buffer.
96f Invalid time out for pump procedure.
971 Pump timeout - abort pump.
980 Incorrect root `LOG_REC RID` from ECDORG.
981 Incorrect root MDCT RID.
a01 `s_update` started.
a0a Bad MAINT message opercode.
a15 Can't open ECD.
a1a Cannot get specified unit UCB.
a20 Specified unit UCB not reserved.
a25 Failed to get "to" unit SDF.
a2a Open of "to" SDF failed.
a30 `ugucbm()` failed.
a35 No active mate found.
a3a Failed to reserve active mate UCB.
a40 Failed to get "from" unit SDF.
a45 Open of "from" SDF failed.
a48 Can't read VTOC on active disk.
a4a Invalid VTOC on active disk.
a55 Asynchronous write failure.
a5a Asynchronous write failure.
a60 VTOC read (source disk) failed.
a65 VTOC write (destination disk) failed.
a6a Too many partitions.
a70 Block number not within VTOC.
a75 Primary BBOOT partition is INVALID.
a7a Backup BBOOT partition is INVALID.
a80 Tried to access unopened file.
a85 `segoff` failure.
a8a `movetrap` failure.
a90 Disk read error.
a95 Disk read error - correctly reread.

a9a Invalid file descriptor.
aa0 IOQUEUEM failure.
aa5 Maintenance job to DKDRV failed.
aaa Received application abort restore request.
ab5 Invalid argument.
aba segname already exists.
ac0 Segment exists.
ac5 No segments available.
aca Not enough space.
ad0 Bad segndx.
ad3 Can't find a free segindex.
ad5 segoff failure.
ada Driver startup message not received.
ae0 Terminated externally.
ae5 Invalid U_ABRTRST message.
aea Invalid maintenance message.
af0 Unknown ACK message.
af5 Process was faulted.
b01 s_dskutil started.
b06 Cannot connect to port PT_DSKUTL.
b09 Bad MAINT message opercode.
b10 Can't open ECD.
b13 "DEST" unit not specified.
b16 ugucbm() failed for "DEST" unit.
b19 Cannot get "DEST" unit UCB.
b1c "DEST" unit UCB not reserved.
b20 Failed to get "TO" unit SDF.
b23 Open of "TO" SDF failed.
b26 Dup of "TO" SDF failed.
b29 ugetucb() failed for "FROM" unit.
b36 Failed to reserve "FROM" unit UCB.
b39 Failed to get "FROM" unit SDF.
b3c Open of "FROM" SDF failed.
b40 Remove mate of "DEST" unit and re-enter command.
b46 Dup of "FROM" SDF failed.
b48 Failed to read VTOC on "TO" disk.
b49 Invalid VTOC on "TO" disk.
b4b Failed to read VTOC on "FROM" disk.
b4c Invalid VTOC on "FROM" disk.
b50 Both VTOCs do not match.
b5c Read failure (DEST disk).
b60 Read failure (SRC disk).
b63 Too many partitions.
b66 VTOCs do not match in size.
b69 Sync write failure (DEST disk).
b6c Block number not within VTOC.
b70 Block number not within VTOC.
b73 Block number not within VTOC.
b80 Tried to access unopened file.
b85 segoff failure.

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b8a `movetrap` failure.
b90 Disk read error.
b95 Disk read error - correctly reread.
b9a Invalid file descriptor.
ba0 `IOQUEUEM` failure.
ba5 Maintenance job to DKDRV failed.
baa Received application abort restore request.
bb5 Invalid argument.
bba `segname` already exists.
bc0 segment exists.
bc5 No segments available.
bca Not enough space.
bd0 Bad `segndx`.
bd3 Can't find a free `segindex`.
bd5 `segoff` failure.
bda Driver startup message not received.
be0 Terminated externally.
be5 Invalid `U_ABRTRST` message.
bea Invalid maintenance message.
bf0 Unknown `ACK` message.
bf5 Process was faulted.

ID . . . . . APP-DFC-APPA-C
GENERIC . . . . . UNIX RTR R21.3 only
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

DKDRV Information Codes

NOTE: These information codes are in hexadecimal notation.

`010` No inventory room - restructure DKDRV.
`020` Report failure.
`030` Access to BIC failed.
`035` Desired BIC status not obtained.
`039` IO job has no associated IO message.
`040` IO message "`ms_to`" field is invalid.
`045` Message type not `IOREAD` or `IOWRITE`.
`04a` No job found in inventory data.
`050` Invalid completion code returned by DFC.
`055` Job reported error.
`05a` Response contains job ID not in use.
`060` Response specified an unknown device.
`06f` Drive status error.
`070` Special queue full.
`073` `spqjobid` failed.
`076` `queuejob` failed for DFC change maintenance mode command.
`07a` `intpwait` function failed for DFC change maintenance mode.
`07c` Special queue full for SBUS change mode job.
`07e` `spqjobid` failed for SBUS change mode command.
`082` `queuejob` for SBUS change maintenance mode failed.
`085` `intpwait` function failed for SBUS change maintenance mode.
`098` DFC version command: special queue full.
`09a` DFC version command: `spqjobid` failed.
`09c` Version command fail.
`09e` `dfc_vers`: `intpwait` function failed.
`0a0` `initmem1()` failed.
`0a2` Timeout request to get DIOP feature level failed.
`0a3` DKDRV timing chain index 0 already assigned.
`0a4` Failed to read `btparm` record.
`0a5` No mate for boot device found.
`0a8` DFC restore failed during boot.
`0ab` Fail to change the usable bit for SBUS.
`0af` MHD marked `S_ACT` but DFC not marked `S_ACT`.
`0b1` MHD marked `S_ACT` but SBUS not marked `S_ACT`.
`0b3` Simplex MHD restore failed config denied removal.
`0b5` Simplex MHD restore failed config OKed removal.

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`0b8` MHD restore failed and no `S_ACT` mate.
`0c0` `initkint` (interrupt detach / attach) failed.
`0c3` Fail to request pump after boot.
`0c6` Invalid MHD to be restored during boot.
`0c9` Invalid mate MHD.
`0cf` Duplicate fields in the message do not match.
`0d0` `DMA_OK` flag not set in message.
`0d5` Byte offset not on word boundary.
`0d7` Maintenance job failure - see DKDRV error report.
`0d9` PSM sent a bad power transition message.
`0db` temp message - old message returned.
`0dd` Unknown maintenance `ACK` received.
`0df` Unrecognizable message type.
`0e2` Unrecognizable device.
`0e5` Unknown `FMGR ACK` message received.
`0e6` Segment removed failed, pump buffer retained.
`0e8` Unknown `MMGR ACK` message received.
`0ec` Unknown `DKDRV ACK` message received.
`0ef` Unknown `ACK` message received.
`0f0` Incorrect swap `LOG_REC RID` from ECDORG.
`0f1` Incorrect SWAP MDCT RID.
`0f2` Can't update the ROOT / SWAP device table.
`0f3` dlm indicator `alocmsg()` failed (to SIM).
`0f4` dlm indicator `alocmsg()` failed (to DKDIP).
`0f6` dlm indicator `alocmsg()` failed(to DKDIP).
`0f8` dlm indicator `alocmsg()` failed(to DKDIP).
`0fa` Could not get a CDLM timer entry.
`0fb` `dlmstrt ost` returned SWFAIL.
`0fd` microstore limpmode flag set.
`0fe` Bad return from `dlmstrt`.
`0ff` Unknown RID from DKDIP.
`100` Invalid operation code in UTIL message.
`101` Power down of an active unit.
`102` DFC power down message received - unit still usable.
`103` Device powered down - abort client.
`104` Power down message received - unit still usable.
`105` dlm indicator `alocmsg()` failed.
`106` Special priority queue full.
`107` `spqjobid` failed.
`108` Invalid device type for power up check.
`10a` `intpwait` function failed.
`110` No VTOC on disk pack.
`113` VTOC too large for DKDRV to handle.
`116` Invalid partition number in VTOC entry.
`119` Invalid partition number in message.
`140` Virtual address does not map into segment number.
`145` `iolock()` failed.
`14a` `uniolock()` failed.
`160` RID to UCB LLA call failed.
`165` RID update and release failed.

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`16a` RID unknown by DKDRV.
`170` RID to UCB LLA call failed.
`175` RID update and release failed.
`17a` RID to UCB LLA call failed.
`180` RID update and release failed.
`185` RID to UCB LLA call failed.
`18a` RID update and release failed.
`190` Invalid inhibit administration opcode.
`1a0` `dtchintr` call returned fail.
`1a5` `atchintr` call returned fail.
`1aa` `enabintr` call returned fail.
`1b0` ECD attach failed.
`1b3` DLM INIT failed.
`1b5` CONFIG OPEN failed.
`1b8` atchdata call to ECD failed.
`1bc` No DFCs in ECD.
`1be` DFC growth failed.
`1c3` downucbs ECD call failed.
`1c6` SBUS growth failed.
`1c9` downucbs ECD call failed.
`1cc` Growth of SCSI device failed.
`1ce` downucbs ECD call failed.
`1d1` SMD MHD growth failed.
`1d3` Too many devices.
`1d6` RID to UCB conversion failed.
`1d8` Invalid device type.
`1d9` Unable to determine DFC type.
`1dc` RID update and release failed.
`1de` Device is unequipped.
`1df` Invalid DFC internal device ID.
`1e1` Channel RID to UCB conversion failed.
`1e3` Invalid SBUS internal device ID.
`1e5` DFC RID to UCB conversion failed.
`1e7` Invalid device ID for SCSI device.
`1e9` SBUS RID to UCB conversion failed.
`1eb` Invalid SBUS internal device id.
`1ed` DFC RID to UCB conversion failed.
`1ef` Invalid device ID for SMD MHD.
`1f2` DFC RID to UCB conversion failed.
`1f4` Incorrect device type for the device's control unit.
`1fc` Memory initialization failed.
`1fe` DKDRV port attach failed.
`203` `getpta()` function failed.
`206` RID to UCB conversion failed.
`209` `idmadev()` (write to DMAC RAM) failed.
`20c` `atchintr` call failed.
`20f` RID not known by DKDRV.
`213` DFC being de-grown is in use.
`216` Update of DKDRV local DFC UCB failed.
`219` DFC being de-grown not in UNEQIP state.

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21c SBUS being de-grown is in use.
21f Update of DKDRV local SBUS UCB failed.
223 SBUS being de-grown not in UNEQIP state.
226 Unit being de-grown is in use.
229 Update of DKDRV local device UCB failed.
22c Unit being de-grown not in UNEQIP state.
22f RID to UCB conversion failed.
233 RID update and release failed.
236 Drive type in ECD does not agree with backplane - restore aborted.
239 RID to UCB conversion failed.
23a RID update and release failed.
23b RID to UCB conversion failed.
23c Get option block for DFC failed.
23d Invalid `eirflag` field in DFC option block.
23e Get option block for MHD failed.
240 Delay (failed to find interrupt set in BIC).
242 RID to UCB conversion failed.
250 Job complete code == fail.
252 Job request not allowed.
254 Job request not allowed.
258 Tape device already opened.
25a Driver I/O error.
25c No `S_ACT` device - open.
260 Incorrect MDCT from IO message.
263 Growth of device failed.
265 No RIDs in ECD MDCT.
268 Warning - enlarge DKDRV's internal MDCT.
26c Disk specific write not allowed.
270 No `S_ACT` device - read.
275 Invalid partition number in read message.
278 Access to DIAG partition is not allowed - read.
27a Unable to inventory job.
27d `bhqjobid` failed.
280 `io_blk` exceeds partition size - read.
290 No `S_ACT` device - write.
295 Invalid partition number in write message.
29a Tried to write into protected partition.
2b1 No job IDs left.
2ba Unable to inventory all jobs.
2be Access to DIAG partition is not allowed - write.
2c0 `io_blk` exceeds partition size - write.
305 Unrecognizable DKDRV internal job type.
307 Unexpected denial of request to remove MHD.
308 Duplex operation compromised due to removing MHD.
320 Boot indicator message allocation failed.
325 INIT entry failed.
32a Unexpected event.
340 do_error(0x340) `FLT_SINIT` fault code.
343 Failed to restart driver.
346 Old non-queued audit error message.

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`349` Unexpected fault code.
`34c` Critical hit - `S_RSP`.
`34f` Critical hit - `S_MSG`.
`353` Driver state error.
`355` Calling `dfcinit()` for lack of "warm" restart.
`356` `ss32b()` failed.
`359` PIC never reset CMD IN PROG flag.
`35f` `progio` (D2SBS clear) failed.
`363` `progio` (BIC initialization and PIC reset) failed.
`366` `initmem5` (DMAC RAM initialization) failed.
`369` `enabintr` function failed.
`36c` `progio` (send ABORT command to PIC) failed.
`36f` `progio` (set BIC IFEN flag) failed.
`373` Unknown RID faulted.
`376` PIO lost for a unit.
`379` Unknown RID faulted.
`37c` Unexpected fault code.
`37f` Message buffer audit error - abort maintenance on this unit.
`383` `timereq()` failed - `dfcinit()`.
`391` invalid `pdfptr`.
`392` invalid `pdfptr`.
`395` RID to UCB LLA call failed.
`397` Message alloc failed (to FMGR).
`398` Could not get a timer entry for FMGR.
`39b` Major DFC reinitialization due to either operational problems or manual request.
`39c` Tape operations aborted.
`39e` Warning - queue full detected.
`3a6` Invalid `dfcinit()` sequence.
`3a9` Can't identify panic dump device.
`3ac` Incorrect PANIC DUMP RID.
`3af` `ss32b()` failed.
`3b3` PIC never reset CMD IN PROG flag.
`3b6` `progio` (D2SBS clear) failed.
`3b9` `progio` (BIC initialization and PIC reset) failed.
`3ba` Failed to clear BIC INTP.
`3bc` `kint()` - stray interrupts detected.
`3be` `kint()` entered before `kfault()` after panic dump.
`3d0` RID not known by DKDRV.
`3d3` DKDRV has aborted client.
`3d5` Invalid maintenance state.
`3d8` Device file not open.
`3dc` Another process has device file open.
`3dd` Tape device is already open.
`3de` Request prohibited on `S_ACT DFC`.
`3e1` `maint()` attach interrupt failed.
`3e3` `maint()` enable interrupt failed.
`3e5` UCB is not a DFC.
`3e8` DMAC RAM initialization failed.
`3ec` Detach / attach / enable interrupt failed.
`3ef` Detach interrupt failed.

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401 Device type is not SCSI.
402 FORMAT - unit is not a disk.
403 Device type is not SCSI for explicit SCSI command.
404 DFC must be active.
405 DFC is not ACTIVE for SCSI command.
406 SBUS must be active.
407 SBUS is not ACTIVE for SCSI command.
409 CONFIG denied request to remove unit.
40a Base queue full.
40b Time limit exceeds capability.
40c May only restore S_OOS units.
40d Failed to get job id.
40e Restore request no good - DFC not S_ACT.
40f queuejob failed.
412 Restore request no good - SBUS not S_ACT.
415 Compare/correct - unit not a disk.
418 Compare/correct - DFC not S_ACT.
41b Compare/correct - SBUS not ACTIVE.
41d May not compare/correct a S_INIT unit.
422 May only restore S_OOS units.
425 SBUS restore - DFC is not ACTIVE.
426 MHD or MT restore - SBUS is not ACTIVE.
427 MHD restore - DFC is not ACTIVE.
428 DIAG SYSGEN PIO failed.
429 Restore not allowed - device not supported.
42a UCB is not a DFC UCB.
42c Not allowed to DGN an S_ACT unit.
42e Special queue full.
432 Invalid device to be diagnosed.
435 spqjobid failed.
438 queuejob failed.
43c getdmaa function failed.
43e Received WSETUP0 before SPECDMA.
442 WSETUP1 received before WSETUP0.
445 uniolock failed.
448 getdmaa function failed.
44c Invalid disk lock process.
44f Base queue full.
452 bhqjobid failed.
455 queuejob failed.
458 Version job failed.
460 FORMAT requires non-S_ACT MHD.
462 FORMAT/VERIFY - unit is not a disk.
465 FORMAT/VERIFY requires S_ACT DFC.
468 INIT/VFY MHD - SBUS not S_ACT.
46a VERIFY in progress - retry later.
470 Start track/block greater than last track/block.
473 Base queue full.
476 bhqjobid failed.
479 MHD usability changed because of INIT operation.

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47c `queuejob` failed.
480 Invalid when MHD is `S_ACT`.
483 DFC must be `S_ACT`.
486 Invalid when MHD is `S_ACT`.
489 DFC must be `S_ACT`.
48b `REMAP devserv()` failed.
48d Device major status update failed.
48f Failed to initialize device status.
492 Base queue full.
494 Unable to queue LM job.
496 Invalid DFC type for DFC reset request.
498 DFC is not ACTIVE to be reset.
49a Firmware is running - cannot reset DFC.
49f DFC type does not support pump.
4a3 DFC is not ACTIVE for pumpcode downloading.
4a6 Other pump in progress - retry later.
4a9 Unable to queue pump job.
4aa Device must be non-ACT to initialize error message inhibit flag.
4ab CLRMAEC - unit is not a disk.
4ac Invalid opercode in maintenance message.
4ae Unexpected maintenance interrupt.
4b3 `dtchintr` call failed.
4b6 Maintenance work timed out.
4b9 No base or high job IDs left.
4bc Failed to get page table address.
4be No job IDs left for base or high queue.
4c2 Offset of the SCSI command is not on word boundary.
4c5 Explicit SCSI command, response and data are not on the same segment.
4c8 Base queue full for SCSI command.
4ca Request exceeds DFC capability.
4cb Invalid second device for SCSI command.
4cc Request exceeds expscsi capability.
4cd Unable to queue the SCSI command.
4d0 `readvtoc()` function failed.
4d5 `readvtoc()` job failed.
4da VTOC sort function failed.
4e0 Invalid `newvtoc()` sequence.
4e5 Partition number out of range for DKDRV.
4e8 Partition number out of range for VTOC.
500 Base queue full for maintenance read.
503 Tried to use invalid VTOC for maintenance read.
505 Invalid partition number in message.
508 Invalid block in partition.
50c `bhqjobid` failed for maintenance read.
50e Unable to inventory job for maintenance read.
520 Base queue full for maintenance write.
523 Tried to use invalid VTOC for maintenance write.
526 Invalid partition number in message.
529 Tried to write into protected partition.
52c Invalid block in partition.

537 MHD usability changed because of `pdfwrite` job.
539 `bhqjobid` failed for maintenance write.
53b Unable to inventory job for maintenance write.
550 Physical device file not opened.
553 Incorrect READ/WRITE access permissions.
556 `iolock` failed.
55b `getjobid` failed.
55f Maintenance I/O request to a non-disk device.
56a DISK read or write requires active DFC.
56f DISK read or write requires active SBUS.
573 This physical device file already open.
575 Device major status update failed.
57a Update of device file variables failed.
580 May not maintenance write ACT device.
583 SDF prematurely closed during a restore.
585 `uniolock` failed.
5a0 Command to BIC failed.
5a5 Command to PIC failed.
5aa Clear of DDSBS failed.
5b0 Read status of DDSBS failed.
5b5 Read of BIC FIFO failed.
5ba Write of BIC FIFO failed.
5bc Read status of BIC failed.
5bf BIC command to read HA shadow register failed.
5c3 Read status of SCSI HA shadow register failed.
5c5 `progio cmdtype` not defined.
5e0 `queuejob` failed.
5e1 Base queue full.
5e2 `getjobid` failed.
5ec `intpwait` function failed.
5f0 `Readdisk queuejob` failed.
5f1 `Readdisk` base queue full.
5f2 `Readdisk getjobid` failed.
5fc `Readdisk intpwait` function failed.
600 Excessive errors - device being reset.
601 Excessive errors - device being reset.
603 SBUS work terminated - DFC going `S_OOS`.
609 DFC sub-device work terminated - DFC going `S_OOS`.
60a Tape work terminated - DFC going `S_OOS`.
60c SBUS sub-device work terminated - SBUS going `S_OOS`.
60d Tape work terminated - SBUS going `S_OOS`.
60e CONFIG `chgstate()` call failed.
613 `dtchintr()` failed.
615 `devserv(OFFLINE)` function failed.
618 `devserv(OFFLINE)` job failed.
61c `sbuserv(OFFLINE)` function failed.
61f `sbuserv(OFFLINE)` job failed.
650 RID to UCB LLA call failed.
653 RID to UCB LLA call failed.
655 RID to UCB LLA call failed.

`658` RID to UCB LLA call failed.
`65c` RID to UCB LLA call failed.
`65e` RID to UCB LLA call failed.
`661` RID to UCB LLA call failed.
`663` RID to UCB LLA call failed.
`666` RID to UCB LLA call failed.
`667` RID to UCB LLA call failed.
`669` RID to UCB LLA call failed.
`673` RID to UCB LLA call failed.
`678` RID to UCB LLA call failed.
`67a` EIR contains job ID not in use.
`67b` RID to UCB LLA call failed.
`67c` RID to UCB LLA call failed.
`67d` RID to UCB LLA call failed.
`67e` RID to UCB LLA call failed.
`682` RID to UCB LLA call failed.
`6a9` Retry PIO failed.
`6aa` Failed to requeue job.
`6b0` Remake: job ID not in use.
`6b5` Remake: bad message type.
`6be` Restore - invalid device type.
`6c0` Unable to change usable bit for DFC.
`6c3` `CONFIG chgstate` call failed.
`6c5` DKDRV DFC memory init failed.
`6c8` `initmem5()` (DMAC init) failed.
`6ca` `initmem6()` (atchintr) failed.
`6ce` `progio` (D2SBS clear) failed.
`6d1` `progio` (BIC initialization and PIC reset) failed.
`6d3` `enabintr()` failed.
`6d5` `SYSGEN` function failed.
`6d8` `sysgen` job failed.
`6db` `dfc_vers` request function failed.
`6dd` `dfc_vers` job failed.
`6df` `dfcserv(ONLINE)` function failed.
`6e2` `dfcserv(ONLINE)` job failed.
`6e5` CONFIG chgstate call failed.
`6e8` Unable to change usable bit for DFC.
`6eb` Cannot request a timer for pump after DFC restore.
`6ef` Invalid DFC restore sequence number.
`6f2` Unit is in FULL DLM - abort restore.
`6f5` Mate unit is in FULL DLM - abort restore.
`6f8` Unable to change usable bit for MHD.
`6fb` CONFIG chgstate call failed.
`6fe` DKDRV MHD memory initialization failed.
`6ff` `dlm_chks()` denied restore request.
`701` `readdisk()` function failed.
`703` Disk job (`readdisk`) failed.
`706` `devserv(ONLINE,RSTJOB)` function failed.
`709` DFC failed to put MHD on-line.
`70c` `readvtoc()` function failed.

70e Disk job (readvtoc) failed.
711 VTOC integrity check failed.
713 CONFIG chgstate call failed.
715 Unable to change usable bit for MHD.
718 Invalid MHD restore sequence number.
71c CONFIG chgstate call failed.
71e sbuserv(ONLINE) function failed.
722 sbuserv(ONLINE) job failed.
725 CONFIG chgstate call failed.
728 Unable to change usable bit for SBUS.
72c Invalid SBUS restore sequence number.
730 Maintenance state audit requested.
732 Invalid MHD "compcor" sequence number.
741 Unit is in FULL DLM - abort restore.
742 Failed to change usable bit for tape.
745 CONFIG chgstate call failed.
748 DKDRV tape memory initialization failed.
74b devserv(ONLINE) function failed.
74e Failed to put tape device ONLINE.
752 CONFIG chgstate call failed.
755 Failed to change usable bit for tape.
758 Invalid tape restore sequence number.
75b DIOP restore not allowed - mate MHD is active.
75e DIOP restore not allowed - MHD is marked essential.
760 progio (set BIC IFEN flag) failed.
761 Wakeup PIO failed.
762 Resume PIO failed.
765 progio (send SYSGEN command to PIC) failed.
76a intpwait function failed.
770 Job timed out.
775 DFC timed out.
776 Invalid pump state.
778 Cannot request timer for DFC pump.
77a DFC entering overload.
77c DFC leaving overload.
77f DFC usability audit failed.
790 Timing table full.
795 Timeout request is out of range.
7c0 No base or high job IDs left.
7c3 No job IDs left for base or high queue.
7c5 No job IDs left for special queue.
800 prc/s_update terminated abnormally.
801 prc/s_dskutil terminated abnormally.
825 Could not alloc msg buf.
830 Could not pcreat process.
835 Could not alloc msg buf.
900 DKDIP pid is null.
903 alocmsg failed.
906 Failed to remove the segment.
909 Cannot pump - other pump in progress.

`90c` Invalid DFC state for pump.
`90e` Cannot perform pump at this time.
`911` DFC is not `S_ACT` for pump.
`913` Invalid global pump state.
`916` DFC is scheduled for major reinitialization - can't pump.
`919` Pump not started - DFC is reserved.
`91c` Failed to allocate message for FMGR.
`91e` File stat error.
`91f` Pump-file is zero byte in size.
`921` Pump-file is not a contiguous single extent file.
`923` Can't get `segnum`.
`926` Fail to queue the pump request.
`929` Can't get `segnum`.
`92c` Fail to determine pump type.
`92d` Can't get `segnum` for DKDRV's internal pump buffer.
`92e` Failed to download the pumpcode.
`931` Request to read pump-file failed.
`933` Failed to read pump-file.
`936` Failed to send the pump request.
`939` Pump failed at last pump.
`93c` Failed to queue a version command in pump procedure.
`93e` Pumpcode version command failed.
`93f` Failed to start new pump.
`943` Invalid pump sequence.
`946` Invalid MDCT RID for pump file.
`949` Invalid segment size requested.
`94c` Failed to get a segment index for new segment.
`94e` Failed to get a segment number for new segment.
`951` Failed to allocate a message buffer.
`953` Failed to allocate a message buffer.
`956` Can't `iolock` the buffer.
`959` Can't allocate the message buffer for reading pumpfile.
`95c` Can't send the I/O message.
`95f` DFC pump: high priority queue full.
`963` DFC pump: base priority queue full.
`966` DFC pump: `getjobid` failed.
`969` DFC pump: `queuejob` failed.
`96c` Can't remove the segment used for pump buffer.
`96f` Invalid time out for pump procedure.
`971` Pump timeout - abort pump.
`980` Incorrect root `LOG_REC RID` from ECDORG.
`981` Incorrect root MDCT RID.
`a01` `s_update` started.
`a0a` Bad MAINT message opercode.
`a15` Can't open ECD.
`a1a` Cannot get specified unit UCB.
`a20` Specified unit UCB not reserved.
`a25` Failed to get "to" unit SDF.
`a2a` Open of "to" SDF failed.
`a30` `ugucbm()` failed.

a35 No active mate found.
a3a Failed to reserve active mate UCB.
a40 Failed to get "from" unit SDF.
a45 Open of "from" SDF failed.
a48 Can't read VTOC on active disk.
a4a Invalid VTOC on active disk.
a55 Asynchronous write failure.
a5a Asynchronous write failure.
a60 VTOC read (source disk) failed.
a65 VTOC write (destination disk) failed.
a6a Too many partitions.
a70 Block number not within VTOC.
a75 Primary BBOOT partition is INVALID.
a7a Backup BBOOT partition is INVALID.
a80 Tried to access unopened file.
a85 `segoff` failure.
a8a `movetrap` failure.
a90 Disk read error.
a95 Disk read error - correctly reread.
a9a Invalid file descriptor.
aa0 `IOQUEUEM` failure.
aa5 Maintenance job to DKDRV failed.
aaa Received application abort restore request.
ab5 Invalid argument.
aba `segname` already exists.
ac0 Segment exists.
ac5 No segments available.
aca Not enough space.
ad0 Bad `segndx`.
ad3 Can't find a free `segindex`.
ad5 `segoff` failure.
ada Driver startup message not received.
ae0 Terminated externally.
ae5 Invalid `U_ABRTRST` message.
aea Invalid maintenance message.
af0 Unknown `ACK` message.
af5 Process was faulted.
b01 `s_dskutil` started.
b06 Cannot connect to port `PT_DSKUTL`.
b09 Bad MAINT message opercode.
b10 Can't open ECD.
b13 "DEST" unit not specified.
b16 `ugucbm()` failed for "DEST" unit.
b19 Cannot get "DEST" unit UCB.
b1c "DEST" unit UCB not reserved.
b20 Failed to get "TO" unit SDF.
b23 Open of "TO" SDF failed.
b26 Dup of "TO" SDF failed.
b29 `ugetucb()` failed for "FROM" unit.
b36 Failed to reserve "FROM" unit UCB.

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`b39` Failed to get "FROM" unit SDF.
`b3c` Open of "FROM" SDF failed.
`b40` Remove mate of "DEST" unit and re-enter command.
`b46` Dup of "FROM" SDF failed.
`b48` Failed to read VTOC on "TO" disk.
`b49` Invalid VTOC on "TO" disk.
`b4b` Failed to read VTOC on "FROM" disk.
`b4c` Invalid VTOC on "FROM" disk.
`b50` Both VTOCs do not match.
`b5c` Read failure (DEST disk).
`b60` Read failure (SRC disk).
`b63` Too many partitions.
`b66` VTOCs do not match in size.
`b69` Sync write failure (DEST disk).
`b6c` Block number not within VTOC.
`b70` Block number not within VTOC.
`b73` Block number not within VTOC.
`b80` Tried to access unopened file.
`b85` `segoff` failure.
`b8a` `movetrap` failure.
`b90` Disk read error.
`b95` Disk read error - correctly reread.
`b9a` Invalid file descriptor.
`ba0` `IOQUEUEM` failure.
`ba5` Maintenance job to DKDRV failed.
`baa` Received application abort restore request.
`bb5` Invalid argument.
`bba` `segname` already exists.
`bc0` segment exists.
`bc5` No segments available.
`bca` Not enough space.
`bd0` Bad segndx.
`bd3` Can't find a free `segindex`.
`bd5` `segoff` failure.
`bda` Driver startup message not received.
`be0` Terminated externally.
`be5` Invalid `U_ABRTRST` message.
`bea` Invalid maintenance message.
`bf0` Unknown `ACK` message.
`bf5` Process was faulted.
`c02` Tape device already open.
`c08` Device major status update failed.
`c0b` Device not active.
`c0e` Update of device variables failed.
`c12` Open for both read and write.
`c15` Incorrect read / write access permissions.
`c18` Failed to send `test unit ready` command.
`c1b` `Test unit ready` command failed.
`c1e` `Test unit ready` command failed.
`c22` Failed to send `test unit ready` command.

c25 `Test unit ready` command failed.
c28 `Test unit ready` command failed.
c2b Failed to send `test unit ready` command.
c2e `Test unit ready` command failed.
c32 `Test unit ready` command failed.
c35 Failed to send `inquiry` command.
c38 `Inquiry` command failed.
c3b `Inquiry` command failed.
c3e Insufficient `inquiry` data.
c42 Failed to send `inquiry` command.
c45 `Inquiry` command failed.
c48 `Inquiry` command failed.
c4b Unknown device.
c4e Failed to send `read block limits` command.
c52 `Read block limits` command failed.
c55 `Read block limits` command failed.
c58 Partition information is invalid.
c5b Not a supported tape device.
c5e Invalid tape I/O open sequence number.
c62 Reserved field in partition used.
c65 Device does not support variable record sizes.
c68 Device does not support fixed records.
c69 Fixed record size is invalid.
c6a Invalid record type specified.
c6b Record size greater than device capability.
c6e Record size less than device capability.
c72 Failed to send tape setup command to DFC.
c75 Tape setup command failed.
c78 Invalid sequence number.
c82 Base queue full.
c85 Failed to get job ID.
c88 Request exceeds DFC capability.
c89 Request exceeds expscsi capability.
c8b No base/high job IDs left.
c8e No job IDs left for base/high queue.
c92 Base queue full.
c95 Failed to get job ID.
c9b Base queue full.
c9e Failed to get job ID.
ca2 Entity type to space over is invalid.
ca5 Base queue full.
ca8 Failed to get job ID.
cab Base queue full.
cae Failed to get job ID.
cb1 Device not active.
cb2 Invalid state for closing device.
cb7 Invalid state for closing device.
cb8 Failed to send tape `rewind` command to DFC.
cbb Tape `rewind` failed.
cbe Invalid sequence number.

`cc2` Failed to send tape `space` command to DFC.
`cc5` Tape `space` command failed.
`cc8` Invalid sequence number.
`ccb` Failed to send `write filemarks` command to DFC.
`cce` `Write filemarks` command failed.
`cd2` Failed to send tape `space` command to DFC.
`cd5` Tape `space` command failed.
`cd8` Invalid sequence number.
`ce2` Device not active.
`ce4` Device not open.
`ce6` Incorrect read / write permissions.
`ce8` Base queue full.
`cea` Failed to get job ID.
`cec` Unable to inventory job.
`cf2` Device not active.
`cf4` Device not open.
`cf6` Incorrect read / write permissions.
`cf8` Base queue full.
`cfa` Failed to get job ID.
`cfc` Unable to inventory job.
`d01` Wrong device type specified.
`d02` Failed to send `mode sense` command.
`d05` `Mode sense` command failed.
`d08` `Mode sense` command failed.
`d0b` Failed to send `mode sense` command.
`d0e` `Mode sense` command failed.
`d12` `Mode sense` command failed.
`d15` Not enough data returned from `mode sense` command.
`d18` Unexpected amount of data returned from `mode sense` command.
`d1b` Device is write protected.
`d1e` Failed to obtain expected mode pages.
`d22` Failed to send `mode select` command.
`d25` `Mode select` command failed.
`d28` `Mode select` command failed.
`d2b` Invalid tape sequence number.
`d2e` Multi-partition tape is not supported.
`d31` Wrong device type specified.
`d32` Failed to send `mode sense` command.
`d35` `Mode sense` command failed.
`d38` `Mode sense` command failed.
`d3b` Failed to send `mode sense` command.
`d3e` `Mode sense` command failed.
`d42` `Mode sense` command failed.
`d45` Not enough data returned from `mode sense` command.
`d48` Unexpected amount of data returned from `mode sense` command.
`d4b` Device is write protected.
`d4c` 120 meter tapes are not supported.
`d4e` Failed to obtain expected mode pages.
`d52` Failed to send `mode select` command.
`d55` `Mode select` command failed.

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d58 Mode select command failed.
d5b Invalid tape sequence number.
d5e Multi-partition tape is not supported.
d61 Wrong device type specified.
d62 Invalid density specified.
d65 Failed to send mode sense command.
d68 Mode sense command failed.
d6b Mode sense command failed.
d6e Failed to send mode sense command.
d72 Mode sense command failed.
d75 Mode sense command failed.
d78 Not enough data returned from mode sense command.
d7b Unexpected amount of data returned from mode sense command.
d7e Device is write protected.
d82 Requested density does not match set device density.
d85 Failed to obtain expected mode pages.
d88 Failed to send mode select command.
d8e Mode select command failed.
d92 Mode select command failed.
d95 Invalid tape sequence number.
da1 Wrong device type specified.
da2 Invalid density specified.
da5 Failed to send mode sense command.
da8 Mode sense command failed.
dab Mode sense command failed.
dae Failed to send mode sense command.
db2 Mode sense command failed.
db5 Mode sense command failed.
db8 Not enough data returned from mode sense command.
dbb Unexpected amount of data returned from mode sense command.
dbe Device is write protected.
dc2 Requested density does not match set device density.
dc5 Failed to obtain expected mode pages.
dc8 Failed to send mode select command.
dce Mode select command failed.
dd2 Mode select command failed.
dd5 Invalid tape sequence number.

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ID . . . . . APP-DFC-APPA-D
GENERIC . . . . . UNIX RTR R21.11, R21.15, R21.19, R21.21 and R21.25
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

DKDRV Information Codes

NOTE: These information codes are in hexadecimal notation.

`010` No inventory room - restructure DKDRV.
`020` Report failure.
`030` Access to BIC failed.
`035` Desired BIC status not obtained.
`039` IO job has no associated IO message.
`040` IO message "`ms_to`" field is invalid.
`045` Message type not `IOREAD` or `IOWRITE`.
`04a` No job found in inventory data.
`050` Invalid completion code returned by DFC.
`055` Job reported error.
`05a` Response contains job ID not in use.
`060` Response specified an unknown device.
`06f` Drive status error.
`070` Special queue full.
`073` `spqjobid()` failed.
`076` `queuejob()` failed for DFC change maintenance mode command.
`07a` `intpwait()` function failed for DFC change maintenance mode.
`07c` Special queue full for SBUS change mode job.
`07e` `spqjobid()` failed for SBUS change mode command.
`082` `queuejob()` for SBUS change maintenance mode failed.
`085` `intpwait()` function failed for SBUS change maintenance mode.
`098` DFC version command: special queue full.
`09a` DFC version command: `spqjobid` failed.
`09c` Version command fail.
`09e` `dfc_vers`: `intpwait` function failed.
`0a0` `initmem1()` failed.
`0a2` Timeout request to get DIOP feature level failed.
`0a3` DKDRV timing chain index 0 already assigned.
`0a4` Failed to read `btparm` record.
`0a5` No mate for boot device found.
`0a8` DFC restore failed during boot.
`0ab` Fail to change the usable bit for SBUS.
`0af` MHD marked `S_ACT` but DFC not marked `S_ACT`.
`0b1` MHD marked `S_ACT` but SBUS not marked `S_ACT`.
`0b3` Simplex MHD restore failed config denied removal.

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`0b5` Simplex MHD restore failed config OKed removal.
`0b8` MHD restore failed and no `S_ACT` mate.
`0c0` `initkint()` (interrupt detach/attach) failed.
`0c3` Fail to request pump after boot.
`0c6` Invalid MHD to be restored during boot.
`0c9` Invalid mate MHD.
`0ca` RID to UCB conversion failed.
`0cb` RID update and release failed.
`0cf` Duplicate fields in the message do not match.
`0d5` Byte offset not on word boundary.
`0d7` Maintenance job failure - see DKDRV error report.
`0d9` PSM sent a bad power transition message.
`0db` temp message - old message returned.
`0dd` Unknown maintenance `ACK` received.
`0df` Unrecognizable message type.
`0e2` Unrecognizable device.
`0e5` Unknown `FMGR ACK` message received.
`0e6` Segment removed failed, pump buffer retained.
`0e8` Unknown `MMGR ACK` message received.
`0ec` Unknown `DKDRV ACK` message received.
`0ef` Unknown `ACK` message received.
`0f0` Incorrect swap `LOG_REC RID` from ECDORG.
`0f1` Incorrect SWAP MDCT RID.
`0f2` Can't update the ROOT/SWAP device table.
`0f3` dlm indicator `alocmsg()` failed (to SIM).
`0f4` dlm indicator `alocmsg()` failed (to DKDIP).
`0f6` dlm indicator `alocmsg()` failed(to DKDIP).
`0f8` dlm indicator `alocmsg()` failed(to DKDIP).
`0fa` Could not get a CDLM timer entry.
`0fb` `dlmstrt ost` returned SWFAIL.
`0fd` microstore limpmode flag set.
`0fe` Bad return from `dlmstrt`.
`0ff` Unknown RID from DKDIP.
`100` Invalid operation code in UTIL message.
`101` Power down of an active unit.
`102` DFC power down message received - unit still usable.
`103` Device powered down - abort client.
`104` Power down message received - unit still usable.
`105` dlm indicator `alocmsg()` failed.
`106` Special priority queue full.
`107` `spqjobid()` failed.
`108` Invalid device type for power up check.
`10a` `intpwait()` function failed.
`110` No VTOC on disk pack.
`113` VTOC too large for DKDRV to handle.
`116` Invalid partition number in VTOC entry.
`119` Invalid partition number in message.
`140` Virtual address does not map into segment number.
`145` `iolock()` failed.
`14a` `uniolock()` failed.

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`160` RID to UCB LLA call failed.
`165` RID update and release failed.
`16a` RID unknown by DKDRV.
`170` RID to UCB LLA call failed.
`175` RID update and release failed.
`17a` RID to UCB LLA call failed.
`180` RID update and release failed.
`185` RID to UCB LLA call failed.
`18a` RID update and release failed.
`190` Invalid inhibit administration opcode.
`1a0` `dtchintr()` call returned fail.
`1a5` `atchintr()` call returned fail.
`1aa` `enabintr()` call returned fail.
`1b0` ECD attach failed.
`1b3` DLM INIT failed.
`1b5` CONFIG OPEN failed.
`1b8` atchdata call to ECD failed.
`1bc` No DFCs in ECD.
`1be` DFC growth failed.
`1c3` downucbs ECD call failed.
`1c6` SBUS growth failed.
`1c9` downucbs ECD call failed.
`1cc` Growth of SCSI device failed.
`1ce` downucbs ECD call failed.
`1d1` SMD MHD growth failed.
`1d3` Too many devices.
`1d6` RID to UCB conversion failed.
`1d8` Invalid device type.
`1d9` Unable to determine DFC type.
`1dc` RID update and release failed.
`1de` Device is unequipped.
`1df` Invalid DFC internal device ID.
`1e1` Channel RID to UCB conversion failed.
`1e3` Invalid SBUS internal device ID.
`1e5` DFC RID to UCB conversion failed.
`1e7` Invalid device ID for SCSI device.
`1e9` SBUS RID to UCB conversion failed.
`1eb` Invalid SBUS internal device id.
`1ed` DFC RID to UCB conversion failed.
`1ef` Invalid device ID for SMD MHD.
`1f2` DFC RID to UCB conversion failed.
`1f4` Incorrect device type for the device's control unit.
`1fc` Memory initialization failed.
`1fe` DKDRV port attach failed.
`203` `getpta()` function failed.
`206` RID to UCB conversion failed.
`209` `idmadev()` (write to DMAC RAM) failed.
`20c` `atchintr` call failed.
`20f` RID not known by DKDRV.
`213` DFC being de-grown is in use.

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`216` Update of DKDRV local DFC UCB failed.
`219` DFC being de-grown not in UNEQIP state.
`21c` SBUS being de-grown is in use.
`21f` Update of DKDRV local SBUS UCB failed.
`223` SBUS being de-grown not in UNEQIP state.
`226` Unit being de-grown is in use.
`229` Update of DKDRV local device UCB failed.
`22c` Unit being de-grown not in UNEQIP state.
`22f` RID to UCB conversion failed.
`233` RID update and release failed.
`236` Drive type in ECD does not agree with backplane - restore aborted.
`239` RID to UCB conversion failed.
`23a` RID update and release failed.
`23b` RID to UCB conversion failed.
`23c` Get option block for DFC failed.
`23d` Invalid `eirflag` field in DFC option block.
`23e` Get option block for MHD failed.
`240` Delay (failed to find interrupt set in BIC).
`242` RID to UCB conversion failed.
`250` Job complete code == fail.
`252` Job request not allowed.
`254` Job request not allowed.
`258` Tape device already opened.
`25a` Driver I/O error.
`25c` No `S_ACT` device - open.
`260` Incorrect MDCT from IO message.
`263` Growth of device failed.
`265` No RIDs in ECD MDCT.
`268` Warning - enlarge DKDRV's internal MDCT.
`26c` Disk specific write not allowed.
`270` No `S_ACT` device - read.
`275` Invalid partition number in read message.
`278` Access to DIAG partition is not allowed - read.
`27a` Unable to inventory job.
`27d` `bhqjobid()` failed.
`280` `io_blk` exceeds partition size - read.
`290` No `S_ACT` device - write.
`295` Invalid partition number in write message.
`29a` Tried to write into protected partition.
`2b1` No job IDs left.
`2ba` Unable to inventory all jobs.
`2be` Access to DIAG partition is not allowed - write.
`2c0` `io_blk` exceeds partition size - write.
`305` Unrecognizable DKDRV internal job type.
`307` Unexpected denial of request to remove MHD.
`308` Duplex operation compromised due to removing MHD.
`320` Boot indicator message allocation failed.
`325` INIT entry failed.
`32a` Unexpected event.
`340` do_error(0x340) `FLT_SINIT` fault code.

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343 Failed to restart driver.
346 Old non-queued audit error message.
349 Unexpected fault code.
34c Critical hit - S_RSP.
34f Critical hit - S_MSG.
353 Driver state error.
355 Calling dfcinit() for lack of "warm" restart.
356 ss32b() failed.
359 PIC never reset CMD IN PROG flag.
35f progio (D2SBS clear) failed.
363 progio (BIC initialization and PIC reset) failed.
366 initmem5 (DMAC RAM initialization) failed.
369 enabintr function failed.
36c progio (send ABORT command to PIC) failed.
36f progio (set BIC IFEN flag) failed.
373 Unknown RID faulted.
376 PIO lost for a unit.
379 Unknown RID faulted.
37c Unexpected fault code.
37f Message buffer audit error - abort maintenance on this unit.
383 timereq() failed - dfcinit().
391 invalid pdfptr.
392 invalid pdfptr.
395 RID to UCB LLA call failed.
397 Message alloc failed (to FMGR).
398 Could not get a timer entry for FMGR.
39b Major DFC reinitialization due to either operational problems or manual request.
39c Tape operations aborted.
39e Warning - queue full detected.
3a6 Invalid dfcinit() sequence.
3a9 Can't identify panic dump device.
3ac Incorrect PANIC DUMP RID.
3af ss32b() failed.
3b3 PIC never reset CMD IN PROG flag.
3b6 progio (D2SBS clear) failed.
3b9 progio (BIC initialization and PIC reset) failed.
3ba Failed to clear BIC INTP.
3bc kint() - stray interrupts detected.
3be kint() entered before kfault() after panic dump.
3d0 RID not known by DKDRV.
3d3 DKDRV has aborted client.
3d5 Invalid maintenance state.
3d8 Device file not open.
3dc Another process has device file open.
3dd Tape device is already open.
3de Request prohibited on S_ACT DFC.
3e1 maint() attach interrupt failed.
3e3 maint() enable interrupt failed.
3e5 UCB is not a DFC.
3e8 DMAC RAM initialization failed.

3ec Detach / attach / enable interrupt failed.
3ef Detach interrupt failed.
401 Device type is not SCSI.
402 FORMAT - unit is not a disk.
403 Device type is not SCSI for explicit SCSI command.
404 DFC must be active.
405 DFC is not ACTIVE for SCSI command.
406 SBUS must be active.
407 SBUS is not ACTIVE for SCSI command.
409 CONFIG denied request to remove unit.
40a Base queue full.
40b Time limit exceeds capability.
40c May only restore S_OOS units.
40d Failed to get job id.
40e Restore request no good - DFC not S_ACT.
40f queuejob failed.
412 Restore request no good - SBUS not S_ACT.
415 Compare / correct - unit not a disk.
418 Compare / correct - DFC not S_ACT.
41b Compare / correct - SBUS not ACTIVE.
41d May not compare / correct a S_INIT unit.
41f Only one compare / correct is allowed to run at one time.
422 May only restore S_OOS units.
425 SBUS restore - DFC is not ACTIVE.
426 MHD or MT restore - SBUS is not ACTIVE.
427 MHD restore - DFC is not ACTIVE.
428 DIAG SYSGEN PIO failed.
429 Restore not allowed - device not supported.
42a UCB is not a DFC UCB.
42c Not allowed to DGN an S_ACT unit.
42e Special queue full.
432 Invalid device to be diagnosed.
435 spqjobid() failed.
438 queuejob() failed.
43c getdmaa() function failed.
43e Received WSETUP0 before SPECDMA.
442 WSETUP1 received before WSETUP0.
445 uniolock() failed.
448 getdmaa function failed.
44c Invalid disk lock process.
44f Base queue full.
452 bhqjobid() failed.
455 queuejob failed.
458 Version job failed.
460 FORMAT requires non-S_ACT MHD.
462 FORMAT/VERIFY - unit is not a disk.
465 FORMAT/VERIFY requires S_ACT DFC.
468 INIT/VFY MHD - SBUS not S_ACT.
46a VERIFY in progress - retry later.
470 Start track / block greater than last track / block.

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473 Base queue full.
476 `bhqjobid()` failed.
479 MHD usability changed because of INIT operation.
47c `queuejob()` failed.
480 Invalid when MHD is `S_ACT`.
483 DFC must be `S_ACT`.
486 Invalid when MHD is `S_ACT`.
489 DFC must be `S_ACT`.
48b `REMAP devserv()` failed.
48d Device major status update failed.
48f Failed to initialize device status.
492 Base queue full.
494 Unable to queue LM job.
496 Invalid DFC type for DFC reset request.
498 DFC is not ACTIVE to be reset.
49a Firmware is running - cannot reset DFC.
49f DFC type does not support pump.
4a3 DFC is not ACTIVE for pumpcode downloading.
4a6 Other pump in progress - retry later.
4a9 Unable to queue pump job.
4aa Device must be non-ACT to initialize error message inhibit flag.
4ab CLRMAEC - unit is not a disk.
4ac Invalid opercode in maintenance message.
4ae Unexpected maintenance interrupt.
4b3 `dtchintr()` call failed.
4b6 Maintenance work timed out.
4b9 No base or high job IDs left.
4bc Failed to get page table address.
4be No job IDs left for base or high queue.
4c2 Offset of the SCSI command is not on word boundary.
4c5 Explicit SCSI command, response and data are not on the same segment.
4c8 Base queue full for SCSI command.
4ca Request exceeds DFC capability.
4cb Invalid second device for SCSI command.
4cc Request exceeds expscsi capability.
4cd Unable to queue the SCSI command.
4d0 `readvtoc()` function failed.
4d1 Another pump in progress, retry later.
4d2 Flash reprogram not started.
4d3 Unable to program flash memory on S_ACT unit.
4d5 `readvtoc()` job failed.
4d6 Unable to clear DDSBS.
4d8 Unable to send command to BIC.
4d9 `getpta()` function failed.
4da VTOC sort function failed.
4db `initmem5()` DMAC init failed.
4dc Unable to send command to BIC.
4dd `dtchintr` call returned fail.
4de `atchintr` call returned fail.
4df DFC pump: `getjobid()` failed.

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`4e0` Invalid `newvtoc()` sequence.
`4e1` Failed to write word in BIC FIFO.
`4e2` `enabintr()` call returned fail.
`4e3` Failed to write word in BIC FIFO.
`4e5` Partition number out of range for DKDRV.
`4e6` Failed to write word in BIC FIFO.
`4e7` Failed to write word in BIC FIFO.
`4e8` Partition number out of range for VTOC.
`4e9` `wakeup()` PIO failed.
`4eb` Unable to get firmware versions.
`4f1` Flash reprogram not started.
`4f2` Unable to clear DDSBS.
`4f3` Unable to send command to BIC.
`4f5` DFC pump: `getjobid()` failed.
`4f7` Failed to write word in BIC FIFO.
`4f9` Failed to write word in BIC FIFO.
`4fa` Failed to write word in BIC FIFO.
`4fb` Failed to write word in BIC FIFO.
`4fc` `wakeup()` PIO failed.
`500` Base queue full for maintenance read.
`503` Tried to use invalid VTOC for maintenance read.
`505` Invalid partition number in message.
`508` Invalid block in partition.
`50c` `bhqjobid()` failed for maintenance read.
`50e` Unable to inventory job for maintenance read.
`520` Base queue full for maintenance write.
`523` Tried to use invalid VTOC for maintenance write.
`526` Invalid partition number in message.
`529` Tried to write into protected partition.
`52c` Invalid block in partition.
`537` MHD usability changed because of `pdfwrite` job.
`539` `bhqjobid()` failed for maintenance write.
`53b` Unable to inventory job for maintenance write.
`550` Physical device file not opened.
`553` Incorrect READ/WRITE access permissions.
`556` `iolock` failed.
`55b` `getjobid` failed.
`55f` Maintenance I/O request to a non-disk device.
`56a` DISK read or write requires active DFC.
`56f` DISK read or write requires active SBUS.
`573` This physical device file already open.
`575` Device major status update failed.
`57a` Update of device file variables failed.
`580` May not maintenance write ACT device.
`583` SDF prematurely closed during a restore.
`585` `uniolock` failed.
`5a0` Command to BIC failed.
`5a5` Command to PIC failed.
`5aa` Clear of DDSBS failed.
`5b0` Read status of DDSBS failed.

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5b5 Read of BIC FIFO failed.
5ba Write of BIC FIFO failed.
5bc Read status of BIC failed.
5bf BIC command to read HA shadow register failed.
5c3 Read status of SCSI HA shadow register failed.
5c5 `progio cmdtype` not defined.
5e0 `queuejob()` failed.
5e1 Base queue full.
5e2 `getjobid()` failed.
5ec `intpwait()` function failed.
5f0 `Readdisk queuejob` failed.
5f1 `Readdisk` base queue full.
5f2 `Readdisk getjobid` failed.
5fc `Readdisk intpwait` function failed.
600 Excessive errors - device being reset.
601 Excessive errors - device being reset.
603 SBUS work terminated - DFC going S_OOS.
609 DFC sub-device work terminated - DFC going S_OOS.
60a Tape work terminated - DFC going S_OOS.
60c SBUS sub-device work terminated - SBUS going S_OOS.
60d Tape work terminated - SBUS going S_OOS.
60e CONFIG `chgstate()` call failed.
613 `dtchintr()` failed.
615 `devserv(OFFLINE)` function failed.
618 `devserv(OFFLINE)` job failed.
61c `sbuserv(OFFLINE)` function failed.
61f `sbuserv(OFFLINE)` job failed.
650 RID to UCB LLA call failed.
653 RID to UCB LLA call failed.
655 RID to UCB LLA call failed.
658 RID to UCB LLA call failed.
65c RID to UCB LLA call failed.
65e RID to UCB LLA call failed.
661 RID to UCB LLA call failed.
663 RID to UCB LLA call failed.
666 RID to UCB LLA call failed.
667 RID to UCB LLA call failed.
669 RID to UCB LLA call failed.
673 RID to UCB LLA call failed.
678 RID to UCB LLA call failed.
67a EIR contains job ID not in use.
67b RID to UCB LLA call failed.
67c RID to UCB LLA call failed.
67d RID to UCB LLA call failed.
67e RID to UCB LLA call failed.
682 RID to UCB LLA call failed.
6a9 Retry PIO failed.
6aa Failed to requeue job.
6b0 Remake: job ID not in use.
6b5 Remake: bad message type.

6be Restore - invalid device type.
6c0 Unable to change usable bit for DFC.
6c3 `CONFIG chgstate` call failed.
6c5 DKDRV DFC memory init failed.
6c8 `initmem5()` (DMAC init) failed.
6ca `initmem6()` (atchintr) failed.
6ce `progio` (D2SBS clear) failed.
6d1 `progio` (BIC initialization and PIC reset) failed.
6d3 `enabintr()` failed.
6d5 `SYSGEN` function failed.
6d8 `sysgen` job failed.
6d9 `dfc_vers` request function failed.
6da `dfc_vers` job failed.
6db `dfc_vers` request function failed.
6dd `dfc_vers` job failed.
6df `dfcserv(ONLINE)` function failed.
6e2 `dfcserv(ONLINE)` job failed.
6e5 CONFIG chgstate call failed.
6e8 Unable to change usable bit for DFC.
6eb Cannot request a timer for pump after DFC restore.
6ef Invalid DFC restore sequence number.
6f2 Unit is in FULL DLM - abort restore.
6f5 Mate unit is in FULL DLM - abort restore.
6f8 Unable to change usable bit for MHD.
6fb CONFIG chgstate call failed.
6fe DKDRV MHD memory initialization failed.
6ff `dlm_chks()` denied restore request.
701 `readdisk()` function failed.
703 Disk job (`readdisk`) failed.
706 `devserv(ONLINE,RSTJOB)` function failed.
709 DFC failed to put MHD on-line.
70c `readvtoc()` function failed.
70e Disk job (`readvtoc`) failed.
711 VTOC integrity check failed.
713 CONFIG chgstate call failed.
715 Unable to change usable bit for MHD.
718 Invalid MHD restore sequence number.
71c CONFIG chgstate call failed.
71e `sbuserv(ONLINE)` function failed.
722 `sbuserv(ONLINE)` job failed.
725 CONFIG chgstate call failed.
728 Unable to change usable bit for SBUS.
72c Invalid SBUS restore sequence number.
730 Maintenance state audit requested.
732 Invalid MHD "`compcor`" sequence number.
741 Unit is in FULL DLM - abort restore.
742 Failed to change usable bit for tape.
745 CONFIG `chgstate` call failed.
748 DKDRV tape memory initialization failed.
74b `devserv(ONLINE)` function failed.

74e Failed to put tape device ONLINE.
752 CONFIG `chgstate` call failed.
755 Failed to change usable bit for tape.
758 Invalid tape restore sequence number.
75b DIOP restore not allowed - mate MHD is active.
75e DIOP restore not allowed - MHD is marked essential.
760 `progio` (set BIC IFEN flag) failed.
761 Wakeup PIO failed.
762 Resume PIO failed.
765 `progio` (send SYSGEN command to PIC) failed.
76a `intpwait` function failed.
770 Job timed out.
775 DFC timed out.
776 Invalid pump state.
778 Cannot request timer for DFC pump.
77a DFC entering overload.
77c DFC leaving overload.
77f DFC usability audit failed.
790 Timing table full.
795 Timeout request is out of range.
7c0 No base or high job IDs left.
7c3 No job IDs left for base or high queue.
7c5 No job IDs left for special queue.
7c7 Failed to get page table address.
7c9 No job IDs left for PIO jobs.
800 `prc/s_update` terminated abnormally.
801 `prc/s_dskutil` terminated abnormally.
825 Could not `alloc` msg buf.
830 Could not `pcreat` process.
835 Could not `alloc` msg buf.
900 DKDIP pid is null.
903 `alocmsg` failed.
906 Failed to remove the segment.
909 Cannot pump - other pump in progress.
90c Invalid DFC state for pump.
90e Cannot perform pump at this time.
911 DFC is not `S_ACT` for pump.
913 Invalid global pump state.
916 DFC is scheduled for major reinitialization - can't pump.
919 Pump not started - DFC is reserved.
91b Firmware version not known.
91c Failed to allocate message for FMGR.
91d Cannot `alloc` message for FMGR.
91e File stat error.
91f Pump-file is zero byte in size.
921 Pump-file is not a contiguous single extent file.
923 Can't get `segnum`.
926 Fail to queue the pump request.
929 Can't get `segnum`.
92c Fail to determine pump type.

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`92d` Can't get `segnum` for DKDRV's internal pump buffer.
`92e` Failed to download the pumpcode.
`931` Request to read pump-file failed.
`933` Failed to read pump-file.
`936` Failed to send the pump request.
`939` Pump failed at last pump.
`93c` Failed to queue a version command in pump procedure.
`93e` Pumpcode version command failed.
`93f` Failed to start new pump.
`943` Invalid pump sequence.
`946` Invalid MDCT RID for pump file.
`949` Invalid segment size requested.
`94c` Failed to get a segment index for new segment.
`94e` Failed to get a segment number for new segment.
`951` Failed to allocate a message buffer.
`953` Failed to allocate a message buffer.
`956` Can't `iolock` the buffer.
`959` Can't allocate the message buffer for reading pumpfile.
`95c` Can't send the I/O message.
`95f` DFC pump: high priority queue full.
`963` DFC pump: base priority queue full.
`966` DFC pump: `getjobid` failed.
`969` DFC pump: `queuejob` failed.
`96c` Can't remove the segment used for pump buffer.
`96f` Invalid time out for pump procedure.
`971` Pump timeout - abort pump.
`980` Incorrect root `LOG_REC RID` from ECDORG.
`981` Incorrect root MDCT RID.
`a01` `s_update` started.
`a0a` Bad MAINT message opercode.
`a15` Can't open ECD.
`a1a` Cannot get specified unit UCB.
`a20` Specified unit UCB not reserved.
`a25` Failed to get "to" unit SDF.
`a2a` Open of "to" SDF failed.
`a30` `ugucbm()` failed.
`a35` No active mate found.
`a3a` Failed to reserve active mate UCB.
`a40` Failed to get "from" unit SDF.
`a45` Open of "from" SDF failed.
`a48` Can't read VTOC on active disk.
`a4a` Invalid VTOC on active disk.
`a55` Asynchronous write failure.
`a5a` Asynchronous write failure.
`a60` VTOC read (source disk) failed.
`a65` VTOC write (destination disk) failed.
`a6a` Too many partitions.
`a70` Block number not within VTOC.
`a75` Primary BBOOT partition is INVALID.
`a7a` Backup BBOOT partition is INVALID.

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`a80` Tried to access unopened file.
`a85` `segoff()` failure.
`a8a` `movetrap()` failure.
`a90` Disk read error.
`a95` Disk read error - correctly reread.
`a9a` Invalid file descriptor.
`aa0` `IOQUEUEM` failure.
`aa5` Maintenance job to DKDRV failed.
`aaa` Received application abort restore request.
`ab5` Invalid argument.
`aba` `segname` already exists.
`ac0` Segment exists.
`ac5` No segments available.
`aca` Not enough space.
`ad0` Bad `segndx`.
`ad3` Can't find a free `segindex`.
`ad5` `segoff` failure.
`ada` Driver startup message not received.
`ae0` Terminated externally.
`ae5` Invalid `U_ABRTRST` message.
`aea` Invalid maintenance message.
`af0` Unknown `ACK` message.
`af5` Process was faulted.
`b01` `s_dskutil` started.
`b06` Cannot connect to port `PT_DSKUTL`.
`b09` Bad MAINT message opercode.
`b10` Can't open ECD.
`b13` "DEST" unit not specified.
`b16` `ugucbm()` failed for "DEST" unit.
`b19` Cannot get "DEST" unit UCB.
`b1c` "DEST" unit UCB not reserved.
`b20` Failed to get "TO" unit SDF.
`b23` Open of "TO" SDF failed.
`b26` Dup of "TO" SDF failed.
`b29` `ugetucb()` failed for "FROM" unit.
`b36` Failed to reserve "FROM" unit UCB.
`b39` Failed to get "FROM" unit SDF.
`b3c` Open of "FROM" SDF failed.
`b40` Remove mate of "DEST" unit and reenter command.
`b46` Dup of "FROM" SDF failed.
`b48` Failed to read VTOC on "TO" disk.
`b49` Invalid VTOC on "TO" disk.
`b4b` Failed to read VTOC on "FROM" disk.
`b4c` Invalid VTOC on "FROM" disk.
`b50` Both VTOCs do not match.
`b5c` Read failure (DEST disk).
`b60` Read failure (SRC disk).
`b63` Too many partitions.
`b66` VTOCs do not match in size.
`b69` Sync write failure (DEST disk).

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b6c Block number not within VTOC.
b70 Block number not within VTOC.
b73 Block number not within VTOC.
b80 Tried to access unopened file.
b85 `segoff` failure.
b8a `movetrap` failure.
b90 Disk read error.
b95 Disk read error - correctly reread.
b9a Invalid file descriptor.
ba0 `IOQUEUEM` failure.
ba5 Maintenance job to DKDRV failed.
baa Received application abort restore request.
bb5 Invalid argument.
bba `segname()` already exists.
bc0 segment exists.
bc5 No segments available.
bca Not enough space.
bd0 Bad segndx.
bd3 Can't find a free `segindex`.
bd5 `segoff` failure.
bda Driver startup message not received.
be0 Terminated externally.
be5 Invalid `U_ABRTRST` message.
bea Invalid maintenance message.
bf0 Unknown `ACK` message.
bf5 Process was faulted.
c02 Tape device already open.
c0b Device not active.
c12 Open for both read and write.
c15 Incorrect read / write access permissions.
c18 Failed to send `test unit ready` command.
c1b `Test unit ready` command failed.
c1e `Test unit ready` command failed.
c22 Failed to send `test unit ready` command.
c25 `Test unit ready` command failed.
c28 `Test unit ready` command failed.
c2b Failed to send `test unit ready` command.
c2e `Test unit ready` command failed.
c32 `Test unit ready` command failed.
c35 Failed to send `inquiry` command.
c38 `Inquiry` command failed.
c3b `Inquiry` command failed.
c3e Insufficient `inquiry` data.
c42 Failed to send `inquiry` command.
c45 `Inquiry` command failed.
c48 `Inquiry` command failed.
c4b Unknown device.
c4e Failed to send `read block limits` command.
c52 `Read block limits` command failed.
c55 `Read block limits` command failed.

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`c58` Partition information is invalid.
`c5b` Not a supported tape device.
`c5e` Invalid tape I/O open sequence number.
`c62` Reserved field in partition used.
`c65` Device does not support variable record sizes.
`c68` Device does not support fixed records.
`c69` Fixed record size is invalid.
`c6a` Invalid record type specified.
`c6b` Record size greater than device capability.
`c6e` Record size less than device capability.
`c72` Failed to send tape setup command to DFC.
`c75` Tape setup command failed.
`c78` Invalid sequence number.
`c82` Base queue full.
`c85` Failed to get job ID.
`c88` Request exceeds DFC capability.
`c89` Request exceeds expscsi capability.
`c8b` No base/high job IDs left.
`c8e` No job IDs left for base/high queue.
`c92` Base queue full.
`c95` Failed to get job ID.
`c9b` Base queue full.
`c9e` Failed to get job ID.
`ca2` Entity type to space over is invalid.
`ca5` Base queue full.
`ca8` Failed to get job ID.
`cab` Base queue full.
`cae` Failed to get job ID.
`cb1` Device not active.
`cb2` Invalid state for closing device.
`cb7` Invalid state for closing device.
`cb8` Failed to send tape `rewind` command to DFC.
`cbb` Tape `rewind` failed.
`cbe` Invalid sequence number.
`cc2` Failed to send tape `space` command to DFC.
`cc5` Tape `space` command failed.
`cc8` Invalid sequence number.
`ccb` Failed to send `write filemarks` command to DFC.
`cce` `Write filemarks` command failed.
`cd2` Failed to send tape `space` command to DFC.
`cd5` Tape `space` command failed.
`cd8` Invalid sequence number.
`ce2` Device not active.
`ce4` Device not open.
`ce6` Incorrect read/write permissions.
`ce8` Base queue full.
`cea` Failed to get job ID.
`cec` Unable to inventory job.
`cf2` Device not active.
`cf4` Device not open.

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`cf6` Incorrect read / write permissions.
`cf8` Base queue full.
`cfa` Failed to get job ID.
`cfc` Unable to inventory job.
`d01` Wrong device type specified.
`d02` Failed to send `mode sense` command.
`d05` `Mode sense` command failed.
`d08` `Mode sense` command failed.
`d0b` Failed to send `mode sense` command.
`d0e` `Mode sense` command failed.
`d12` `Mode sense` command failed.
`d15` Not enough data returned from `mode sense` command.
`d18` Unexpected amount of data returned from `mode sense` command.
`d1b` Device is write protected.
`d1e` Failed to obtain expected mode pages.
`d22` Failed to send `mode select` command.
`d25` `Mode select` command failed.
`d28` `Mode select` command failed.
`d2b` Invalid tape sequence number.
`d2e` Multi-partition tape is not supported.
`d31` Wrong device type specified.
`d32` Failed to send `mode sense` command.
`d35` `Mode sense` command failed.
`d38` `Mode sense` command failed.
`d3b` Failed to send `mode sense` command.
`d3e` `Mode sense` command failed.
`d42` `Mode sense` command failed.
`d45` Not enough data returned from `mode sense` command.
`d48` Unexpected amount of data returned from `mode sense` command.
`d4b` Device is write protected.
`d4c` 120 meter tapes are not supported.
`d4e` Failed to obtain expected mode pages.
`d52` Failed to send `mode select` command.
`d55` `Mode select` command failed.
`d58` `Mode select` command failed.
`d5b` Invalid tape sequence number.
`d5e` Multi-partition tape is not supported.
`d61` Wrong device type specified.
`d62` Invalid density specified.
`d65` Failed to send `mode sense` command.
`d68` `Mode sense` command failed.
`d6b` `Mode sense` command failed.
`d6e` Failed to send `mode sense` command.
`d72` `Mode sense` command failed.
`d75` `Mode sense` command failed.
`d78` Not enough data returned from `mode sense` command.
`d7b` Unexpected amount of data returned from `mode sense` command.
`d7e` Device is write protected.
`d82` Requested density does not match set device density.
`d85` Failed to obtain expected mode pages.

`d88` Failed to send `mode select` command.
`d8e` `Mode select` command failed.
`d92` `Mode select` command failed.
`d95` Invalid tape sequence number.
`da1` Wrong device type specified.
`da2` Invalid density specified.
`da5` Failed to send `mode sense` command.
`da8` `Mode sense` command failed.
`dab` `Mode sense` command failed.
`dae` Failed to send `mode sense` command.
`db2` `Mode sense` command failed.
`db5` `Mode sense` command failed.
`db8` Not enough data returned from `mode sense` command.
`dbb` Unexpected amount of data returned from `mode sense` command.
`dbe` Device is write protected.
`dc2` Requested density does not match set device density.
`dc5` Failed to obtain expected mode pages.
`dc8` Failed to send `mode select` command.
`dce` `Mode select` command failed.
`dd2` `Mode select` command failed.
`dd5` Invalid tape sequence number.
`e01` Not SCSI DFC.
`e03` Invalid DFC state for pump.
`e05` `dtchintr()` call returned fail.
`e07` Unable to clear DDSBS.
`e09` Unable to send command to BIC.
`e0a` Unable to send command to BIC.
`e0b` `atchintr()` call returned fail.
`e0d` `enabintr()` call returned fail.
`e0f` `getjobid()` failed.
`e11` Failed to write word in BIC FIFO.
`e13` `wakeup()` PIO failed.
`e15` `version` command failed.
`e17` `getjobid()` failed.
`e19` Failed to write word in BIC FIFO.
`e1a` `wakeup()` PIO failed.
`e1b` `version` command failed.
`e1c` Unable to allocate message for FMGR.
`e1d` 1-byte wide firmware version not known.
`e1f` Unable to allocate message for FMGR.
`e20` Unable to do a `stat()` on the pumpfile.
`e22` Pumpfile invalid size.
`e24` Pumpfile is not a single extent contiguous file.
`e26` Unable to get segnum.
`e28` Unable to `iolock` the buffer.
`e2a` Unable to allocate the message buffer for reading pumpfile.
`e2c` Unable to send the I/O message.
`e2e` Unable to read pumpfile header.
`e2f` Pumpfile has invalid size.
`e30` 4-wide firmware needs to be reprogrammed, retry later.

`e32` Unable to get segnum.
`e33` Unable to get segnum for DKDRV's internal pump buffer.
`e35` Unable to download the pumpcode.
`e37` Unable to request reading pumpfile.
`e39` Unable to read pumpfile.
`e3a` DFC pump: `getjobid` failed.
`e3b` Failed to write word in BIC FIFO.
`e3d` Failed to write word in BIC FIFO.
`e3f` Failed to write word in BIC FIFO.
`e41` Failed to write word in BIC FIFO.
`e43` `wakeup` PIO failed.
`e45` Pump failed at last pump.
`e46` Cannot remove the segment.
`e47` `dtchintr()` call returned fail.
`e48` Unable to send command to BIC.
`e49` Invalid pump sequence.
`e4a` `dtchintr()` call returned fail.
`e4b` Cannot remove the segment.
`e4c` Unable to send command to BIC.
`e50` Invalid header magic number.
`e53` 1-byte wide firmware and pumpfile are incompatible - issue.
`e55` 1-byte wide firmware and pumpfile are incompatible - generic.
`e57` 4-byte wide firmware and pumpfile are incompatible with 1-byte wide firmware.
`e59` Pumpfile has different revision level.
`e5a` 1-byte wide firmware and pumpfile are incompatible.
`e5c` Unable to determine revision levels.
`e60` Unable to send command to BIC.
`e62` `jcistat` command failed.
`e64` Read status of BIC failed.
`e66` Failed to read BIC FIFO.
`e68` Failed to read BIC FIFO.
`e69` Received interrupt but no response.
`e6a` Failed to clear BIC interrupt.
`e6b` `dtchintr()` call returned fail.
`e6c` Unable to send command to BIC.
`e6d` `dtchintr` call returned fail.
`e6e` `atchintr` call returned fail.
`e6f` `enabintr` call returned fail.
`e70` DFC flash programming timed out.
`e71` Unable to clear DDSBS.
`e72` Unable to send command to BIC.
`e73` DFC `version` command failed.
`e74` Unable to send command to BIC.
`e78` `initmem5()` DMAC initialization failed.
`e7a` `dtchintr` call returned fail.
`e7b` `atchintr` call returned fail.
`e7c` `enabintr` call returned fail.
`e7d` `getjobid` failed.
`e7f` Unable to send `version` command failed.
`e80` Unrecognizable DKDRV internal job type.

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`e85` Response contains jobid not in use.
`e86` IO job has no associated IO message.
`e88` IO message "ms_to" field is invalid.
`e8a` Message type not IOREAD or IOWRITE.
`e8c` No job found in inventory data.
`e8d` Invalid completion code returned by DFC.
`e8f` Job reported error.

ID . . . . . APP-DFC-APPA-E
GENERIC . . . . . UNIX RTR R21.23
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

DKDRV Information Codes

NOTE: These information codes are in hexadecimal notation.

`010` No inventory room - restructure DKDRV.
`020` Report failure.
`030` Access to BIC failed.
`035` Desired BIC status not obtained.
`039` IO job has no associated IO message.
`040` IO message "`ms_to`" field is invalid.
`041` Message buffer not marked allocated.
`045` Message type not `IOREAD` or `IOWRITE`.
`04a` No job found in inventory data.
`050` Invalid completion code returned by DFC.
`055` Job reported error.
`05a` Response contains job ID not in use.
`060` Response specified an unknown device.
`06f` Drive status error.
`070` Special queue full.
`073` `spqjobid()` failed.
`076` `queuejob()` failed for DFC change maintenance mode command.
`07a` `intpwait()` function failed for DFC change maintenance mode.
`07c` Special queue full for SBUS change mode job.
`07e` `spqjobid()` failed for SBUS change mode command.
`082` `queuejob()` for SBUS change maintenance mode failed.
`085` `intpwait()` function failed for SBUS change maintenance mode.
`098` DFC version command: special queue full.
`09a` DFC version command: `spqjobid` failed.
`09c` Version command fail.
`09e` `dfc_vers`: `intpwait` function failed.
`0a0` `initmem1()` failed.
`0a2` Timeout request to get DIOP feature level failed.
`0a3` DKDRV timing chain index 0 already assigned.
`0a4` Failed to read `btparm` record.
`0a5` No mate for boot device found.
`0a8` DFC restore failed during boot.
`0ab` Fail to change the usable bit for SBUS.
`0af` MHD marked `S_ACT` but DFC not marked `S_ACT`.
`0b1` MHD marked `S_ACT` but SBUS not marked `S_ACT`.
`0b3` Simplex MHD restore failed config denied removal.

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`0b5` Simplex MHD restore failed config OKed removal.
`0b8` MHD restore failed and no `S_ACT` mate.
`0c0` `initkint()` (interrupt detach/attach) failed.
`0c3` Fail to request pump after boot.
`0c6` Invalid MHD to be restored during boot.
`0c9` Invalid mate MHD.
`0ca` RID to UCB conversion failed.
`0cb` RID update and release failed.
`0cf` Duplicate fields in the message do not match.
`0d5` Byte offset not on word boundary.
`0d7` Maintenance job failure - see DKDRV error report.
`0d9` PSM sent a bad power transition message.
`0db` temp message - old message returned.
`0dd` Unknown maintenance `ACK` received.
`0df` Unrecognizable message type.
`0e2` Unrecognizable device.
`0e5` Unknown `FMGR ACK` message received.
`0e6` Segment removed failed, pump buffer retained.
`0e8` Unknown `MMGR ACK` message received.
`0ec` Unknown `DKDRV ACK` message received.
`0ef` Unknown `ACK` message received.
`0f0` Incorrect swap `LOG_REC RID` from ECDORG.
`0f1` Incorrect SWAP MDCT RID.
`0f2` Can't update the ROOT/SWAP device table.
`0f3` dlm indicator `alocmsg()` failed (to SIM).
`0f4` dlm indicator `alocmsg()` failed (to DKDIP).
`0f6` dlm indicator `alocmsg()` failed(to DKDIP).
`0f8` dlm indicator `alocmsg()` failed(to DKDIP).
`0fa` Could not get a CDLM timer entry.
`0fb` `dlmstrt ost` returned SWFAIL.
`0fd` microstore limpmode flag set.
`0fe` Bad return from `dlmstrt`.
`0ff` Unknown RID from DKDIP.
`100` Invalid operation code in UTIL message.
`101` Power down of an active unit.
`102` DFC power down message received - unit still usable.
`103` Device powered down - abort client.
`104` Power down message received - unit still usable.
`105` dlm indicator `alocmsg()` failed.
`106` Special priority queue full.
`107` `spqjobid()` failed.
`108` Invalid device type for power up check.
`10a` `intpwait()` function failed.
`110` No VTOC on disk pack.
`113` VTOC too large for DKDRV to handle.
`116` Invalid partition number in VTOC entry.
`119` Invalid partition number in message.
`140` Virtual address does not map into segment number.
`145` `iolock()` failed.
`14a` `uniolock()` failed.

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`160` RID to UCB LLA call failed.
`165` RID update and release failed.
`16a` RID unknown by DKDRV.
`170` RID to UCB LLA call failed.
`175` RID update and release failed.
`17a` RID to UCB LLA call failed.
`180` RID update and release failed.
`185` RID to UCB LLA call failed.
`18a` RID update and release failed.
`190` Invalid inhibit administration opcode.
`1a0` `dtchintr()` call returned fail.
`1a5` `atchintr()` call returned fail.
`1aa` `enabintr()` call returned fail.
`1b0` ECD attach failed.
`1b3` DLM INIT failed.
`1b5` CONFIG OPEN failed.
`1b8` atchdata call to ECD failed.
`1bc` No DFCs in ECD.
`1be` DFC growth failed.
`1c3` downucbs ECD call failed.
`1c6` SBUS growth failed.
`1c9` downucbs ECD call failed.
`1cc` Growth of SCSI device failed.
`1ce` downucbs ECD call failed.
`1d1` SMD MHD growth failed.
`1d3` Too many devices.
`1d6` RID to UCB conversion failed.
`1d8` Invalid device type.
`1d9` Unable to determine DFC type.
`1dc` RID update and release failed.
`1de` Device is unequipped.
`1df` Invalid DFC internal device ID.
`1e1` Channel RID to UCB conversion failed.
`1e3` Invalid SBUS internal device ID.
`1e5` DFC RID to UCB conversion failed.
`1e7` Invalid device ID for SCSI device.
`1e9` SBUS RID to UCB conversion failed.
`1eb` Invalid SBUS internal device id.
`1ed` DFC RID to UCB conversion failed.
`1ef` Invalid device ID for SMD MHD.
`1f2` DFC RID to UCB conversion failed.
`1f4` Incorrect device type for the device's control unit.
`1fc` Memory initialization failed.
`1fe` DKDRV port attach failed.
`203` `getpta()` function failed.
`206` RID to UCB conversion failed.
`209` `idmadev()` (write to DMAC RAM) failed.
`20c` `atchintr` call failed.
`20f` RID not known by DKDRV.
`213` DFC being de-grown is in use.

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`216` Update of DKDRV local DFC UCB failed.
`219` DFC being de-grown not in UNEQIP state.
`21c` SBUS being de-grown is in use.
`21f` Update of DKDRV local SBUS UCB failed.
`223` SBUS being de-grown not in UNEQIP state.
`226` Unit being de-grown is in use.
`229` Update of DKDRV local device UCB failed.
`22c` Unit being de-grown not in UNEQIP state.
`22f` RID to UCB conversion failed.
`233` RID update and release failed.
`236` Drive type in ECD does not agree with backplane - restore aborted.
`239` RID to UCB conversion failed.
`23a` RID update and release failed.
`23b` RID to UCB conversion failed.
`23c` Get option block for DFC failed.
`23d` Invalid `eirflag` field in DFC option block.
`23e` Get option block for MHD failed.
`240` Delay (failed to find interrupt set in BIC).
`242` RID to UCB conversion failed.
`250` Job complete code == fail.
`252` Job request not allowed.
`254` Job request not allowed.
`258` Tape device already opened.
`25a` Driver I/O error.
`25c` No `S_ACT` device - open.
`260` Incorrect MDCT from IO message.
`263` Growth of device failed.
`265` No RIDs in ECD MDCT.
`268` Warning - enlarge DKDRV's internal MDCT.
`26c` Disk specific write not allowed.
`270` No `S_ACT` device - read.
`275` Invalid partition number in read message.
`278` Access to DIAG partition is not allowed - read.
`27a` Unable to inventory job.
`27d` `bhqjobid()` failed.
`280` `io_blk` exceeds partition size - read.
`290` No `S_ACT` device - write.
`295` Invalid partition number in write message.
`29a` Tried to write into protected partition.
`2b1` No job IDs left.
`2ba` Unable to inventory all jobs.
`2be` Access to DIAG partition is not allowed - write.
`2c0` `io_blk` exceeds partition size - write.
`305` Unrecognizable DKDRV internal job type.
`307` Unexpected denial of request to remove MHD.
`308` Duplex operation compromised due to removing MHD.
`320` Boot indicator message allocation failed.
`325` INIT entry failed.
`32a` Unexpected event.
`340` do_error(0x340) `FLT_SINIT` fault code.

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343 Failed to restart driver.
346 Old non-queued audit error message.
349 Unexpected fault code.
34c Critical hit - S_RSP.
34f Critical hit - S_MSG.
353 Driver state error.
355 Calling dfcinit() for lack of "warm" restart.
356 ss32b() failed.
359 PIC never reset CMD IN PROG flag.
35f progio (D2SBS clear) failed.
363 progio (BIC initialization and PIC reset) failed.
366 initmem5 (DMAC RAM initialization) failed.
369 enabintr function failed.
36c progio (send ABORT command to PIC) failed.
36f progio (set BIC IFEN flag) failed.
373 Unknown RID faulted.
376 PIO lost for a unit.
379 Unknown RID faulted.
37c Unexpected fault code.
37f Message buffer audit error - abort maintenance on this unit.
383 timereq() failed - dfcinit().
391 invalid pdfptr.
392 invalid pdfptr.
395 RID to UCB LLA call failed.
397 Message alloc failed (to FMGR).
398 Could not get a timer entry for FMGR.
39b Major DFC reinitialization due to either operational problems or manual request.
39c Tape operations aborted.
39e Warning - queue full detected.
3a6 Invalid dfcinit() sequence.
3a9 Can't identify panic dump device.
3ac Incorrect PANIC DUMP RID.
3af ss32b() failed.
3b3 PIC never reset CMD IN PROG flag.
3b6 progio (D2SBS clear) failed.
3b9 progio (BIC initialization and PIC reset) failed.
3ba Failed to clear BIC INTP.
3bc kint() - stray interrupts detected.
3be kint() entered before kfault() after panic dump.
3d0 RID not known by DKDRV.
3d3 DKDRV has aborted client.
3d5 Invalid maintenance state.
3d8 Device file not open.
3dc Another process has device file open.
3dd Tape device is already open.
3de Request prohibited on S_ACT DFC.
3e1 maint() attach interrupt failed.
3e3 maint() enable interrupt failed.
3e5 UCB is not a DFC.
3e8 DMAC RAM initialization failed.

`3ec` Detach / attach / enable interrupt failed.
`3ef` Detach interrupt failed.
`401` Device type is not SCSI.
`402` FORMAT - unit is not a disk.
`403` Device type is not SCSI for explicit SCSI command.
`404` DFC must be active.
`405` DFC is not ACTIVE for SCSI command.
`406` SBUS must be active.
`407` SBUS is not ACTIVE for SCSI command.
`409` CONFIG denied request to remove unit.
`40a` Base queue full.
`40b` Time limit exceeds capability.
`40c` May only restore `S_OOS` units.
`40d` Failed to get job id.
`40e` Restore request no good - DFC not `S_ACT`.
`40f` `queuejob` failed.
`412` Restore request no good - SBUS not `S_ACT`.
`415` Compare / correct - unit not a disk.
`418` Compare / correct - DFC not `S_ACT`.
`41b` Compare / correct - SBUS not ACTIVE.
`41d` May not compare / correct a `S_INIT` unit.
`41f` Only one compare / correct is allowed to run at one time.
`422` May only restore `S_OOS` units.
`425` SBUS restore - DFC is not ACTIVE.
`426` MHD or MT restore - SBUS is not ACTIVE.
`427` MHD restore - DFC is not ACTIVE.
`428` `DIAG SYSGEN PIO` failed.
`429` Restore not allowed - device not supported.
`42a` UCB is not a DFC UCB.
`42c` Not allowed to DGN an `S_ACT` unit.
`42e` Special queue full.
`432` Invalid device to be diagnosed.
`435` `spqjobid()` failed.
`438` `queuejob()` failed.
`43c` `getdmaa()` function failed.
`43e` Received `WSETUP0` before `SPECDMA`.
`442` `WSETUP1` received before `WSETUP0`.
`445` `uniolock()` failed.
`448` `getdmaa` function failed.
`44c` Invalid disk lock process.
`44f` Base queue full.
`452` `bhqjobid()` failed.
`455` queuejob failed.
`458` Version job failed.
`460` `FORMAT` requires non-`S_ACT` MHD.
`462` `FORMAT/VERIFY` - unit is not a disk.
`465` `FORMAT/VERIFY` requires `S_ACT` DFC.
`468` `INIT/VFY` MHD - SBUS not `S_ACT`.
`46a` `VERIFY` in progress - retry later.
`470` Start track / block greater than last track / block.

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473 Base queue full.
476 `bhqjobid()` failed.
479 MHD usability changed because of INIT operation.
47c `queuejob()` failed.
480 Invalid when MHD is `S_ACT`.
483 DFC must be `S_ACT`.
486 Invalid when MHD is `S_ACT`.
489 DFC must be `S_ACT`.
48b `REMAP devserv()` failed.
48d Device major status update failed.
48f Failed to initialize device status.
492 Base queue full.
494 Unable to queue LM job.
496 Invalid DFC type for DFC reset request.
498 DFC is not ACTIVE to be reset.
49a Firmware is running - cannot reset DFC.
49f DFC type does not support pump.
4a3 DFC is not ACTIVE for pumpcode downloading.
4a6 Other pump in progress - retry later.
4a9 Unable to queue pump job.
4aa Device must be non-ACT to initialize error message inhibit flag.
4ab CLRMAEC - unit is not a disk.
4ac Invalid opercode in maintenance message.
4ae Unexpected maintenance interrupt.
4b3 `dtchintr()` call failed.
4b6 Maintenance work timed out.
4b9 No base or high job IDs left.
4bc Failed to get page table address.
4be No job IDs left for base or high queue.
4c2 Offset of the SCSI command is not on word boundary.
4c5 Explicit SCSI command, response and data are not on the same segment.
4c8 Base queue full for SCSI command.
4ca Request exceeds DFC capability.
4cb Invalid second device for SCSI command.
4cc Request exceeds expscsi capability.
4cd Unable to queue the SCSI command.
4d0 `readvtoc()` function failed.
4d1 Another pump in progress, retry later.
4d2 Flash reprogram not started.
4d3 Unable to program flash memory on S_ACT unit.
4d5 `readvtoc()` job failed.
4d6 Unable to clear DDSBS.
4d8 Unable to send command to BIC.
4d9 `getpta()` function failed.
4da VTOC sort function failed.
4db `initmem5()` DMAC init failed.
4dc Unable to send command to BIC.
4dd `dtchintr` call returned fail.
4de `atchintr` call returned fail.
4df DFC pump: `getjobid()` failed.

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`4e0` Invalid `newvtoc()` sequence.
`4e1` Failed to write word in BIC FIFO.
`4e2` `enabintr()` call returned fail.
`4e3` Failed to write word in BIC FIFO.
`4e5` Partition number out of range for DKDRV.
`4e6` Failed to write word in BIC FIFO.
`4e7` Failed to write word in BIC FIFO.
`4e8` Partition number out of range for VTOC.
`4e9` `wakeup()` PIO failed.
`4eb` Unable to get firmware versions.
`4f1` Flash reprogram not started.
`4f2` Unable to clear DDSBS.
`4f3` Unable to send command to BIC.
`4f5` DFC pump: `getjobid()` failed.
`4f7` Failed to write word in BIC FIFO.
`4f9` Failed to write word in BIC FIFO.
`4fa` Failed to write word in BIC FIFO.
`4fb` Failed to write word in BIC FIFO.
`4fc` `wakeup()` PIO failed.
`500` Base queue full for maintenance read.
`503` Tried to use invalid VTOC for maintenance read.
`505` Invalid partition number in message.
`508` Invalid block in partition.
`50c` `bhqjobid()` failed for maintenance read.
`50e` Unable to inventory job for maintenance read.
`520` Base queue full for maintenance write.
`523` Tried to use invalid VTOC for maintenance write.
`526` Invalid partition number in message.
`529` Tried to write into protected partition.
`52c` Invalid block in partition.
`537` MHD usability changed because of `pdfwrite` job.
`539` `bhqjobid()` failed for maintenance write.
`53b` Unable to inventory job for maintenance write.
`550` Physical device file not opened.
`553` Incorrect READ/WRITE access permissions.
`556` `iolock` failed.
`55b` `getjobid` failed.
`55f` Maintenance I/O request to a non-disk device.
`56a` DISK read or write requires active DFC.
`56f` DISK read or write requires active SBUS.
`573` This physical device file already open.
`575` Device major status update failed.
`57a` Update of device file variables failed.
`580` May not maintenance write ACT device.
`583` SDF prematurely closed during a restore.
`585` `uniolock` failed.
`5a0` Command to BIC failed.
`5a5` Command to PIC failed.
`5aa` Clear of DDSBS failed.
`5b0` Read status of DDSBS failed.

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5b5 Read of BIC FIFO failed.
5ba Write of BIC FIFO failed.
5bc Read status of BIC failed.
5bf BIC command to read HA shadow register failed.
5c3 Read status of SCSI HA shadow register failed.
5c5 `progio cmdtype` not defined.
5e0 `queuejob()` failed.
5e1 Base queue full.
5e2 `getjobid()` failed.
5ec `intpwait()` function failed.
5f0 `Readdisk queuejob` failed.
5f1 `Readdisk` base queue full.
5f2 `Readdisk getjobid` failed.
5fc `Readdisk intpwait` function failed.
600 Excessive errors - device being reset.
601 Excessive errors - device being reset.
603 SBUS work terminated - DFC going S_OOS.
609 DFC sub-device work terminated - DFC going S_OOS.
60a Tape work terminated - DFC going S_OOS.
60c SBUS sub-device work terminated - SBUS going S_OOS.
60d Tape work terminated - SBUS going S_OOS.
60e CONFIG `chgstate()` call failed.
613 `dtchintr()` failed.
615 `devserv(OFFLINE)` function failed.
618 `devserv(OFFLINE)` job failed.
61c `sbuserv(OFFLINE)` function failed.
61f `sbuserv(OFFLINE)` job failed.
650 RID to UCB LLA call failed.
653 RID to UCB LLA call failed.
655 RID to UCB LLA call failed.
658 RID to UCB LLA call failed.
65c RID to UCB LLA call failed.
65e RID to UCB LLA call failed.
661 RID to UCB LLA call failed.
663 RID to UCB LLA call failed.
666 RID to UCB LLA call failed.
667 RID to UCB LLA call failed.
669 RID to UCB LLA call failed.
673 RID to UCB LLA call failed.
678 RID to UCB LLA call failed.
67a EIR contains job ID not in use.
67b RID to UCB LLA call failed.
67c RID to UCB LLA call failed.
67d RID to UCB LLA call failed.
67e RID to UCB LLA call failed.
682 RID to UCB LLA call failed.
6a9 Retry PIO failed.
6aa Failed to requeue job.
6b0 Remake: job ID not in use.
6b5 Remake: bad message type.

`6be` Restore - invalid device type.
`6c0` Unable to change usable bit for DFC.
`6c3` `CONFIG chgstate` call failed.
`6c5` DKDRV DFC memory init failed.
`6c8` `initmem5()` (DMAC init) failed.
`6ca` `initmem6()` (atchintr) failed.
`6ce` `progio` (D2SBS clear) failed.
`6d1` `progio` (BIC initialization and PIC reset) failed.
`6d3` `enabintr()` failed.
`6d5` `SYSGEN` function failed.
`6d8` `sysgen` job failed.
`6d9` `dfc_vers` request function failed.
`6da` `dfc_vers` job failed.
`6db` `dfc_vers` request function failed.
`6dd` `dfc_vers` job failed.
`6df` `dfcserv(ONLINE)` function failed.
`6e2` `dfcserv(ONLINE)` job failed.
`6e5` CONFIG chgstate call failed.
`6e8` Unable to change usable bit for DFC.
`6eb` Cannot request a timer for pump after DFC restore.
`6ef` Invalid DFC restore sequence number.
`6f2` Unit is in FULL DLM - abort restore.
`6f5` Mate unit is in FULL DLM - abort restore.
`6f8` Unable to change usable bit for MHD.
`6fb` CONFIG chgstate call failed.
`6fe` DKDRV MHD memory initialization failed.
`6ff` `dlm_chks()` denied restore request.
`701` `readdisk()` function failed.
`703` Disk job `(readdisk)` failed.
`706` `devserv(ONLINE,RSTJOB)` function failed.
`709` DFC failed to put MHD on-line.
`70c` `readvtoc()` function failed.
`70e` Disk job `(readvtoc)` failed.
`711` VTOC integrity check failed.
`713` CONFIG chgstate call failed.
`715` Unable to change usable bit for MHD.
`718` Invalid MHD restore sequence number.
`71c` CONFIG chgstate call failed.
`71e` `sbuserv(ONLINE)` function failed.
`722` `sbuserv(ONLINE)` job failed.
`725` CONFIG chgstate call failed.
`728` Unable to change usable bit for SBUS.
`72c` Invalid SBUS restore sequence number.
`730` Maintenance state audit requested.
`732` Invalid MHD "`compcor`" sequence number.
`741` Unit is in FULL DLM - abort restore.
`742` Failed to change usable bit for tape.
`745` CONFIG `chgstate` call failed.
`748` DKDRV tape memory initialization failed.
`74b` `devserv(ONLINE)` function failed.

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74e Failed to put tape device ONLINE.
752 CONFIG `chgstate` call failed.
755 Failed to change usable bit for tape.
758 Invalid tape restore sequence number.
75b DIOP restore not allowed - mate MHD is active.
75e DIOP restore not allowed - MHD is marked essential.
760 `progio` (set BIC IFEN flag) failed.
761 Wakeup PIO failed.
762 Resume PIO failed.
765 `progio` (send SYSGEN command to PIC) failed.
76a `intpwait` function failed.
770 Job timed out.
775 DFC timed out.
776 Invalid pump state.
778 Cannot request timer for DFC pump.
77a DFC entering overload.
77c DFC leaving overload.
77f DFC usability audit failed.
790 Timing table full.
795 Timeout request is out of range.
7c0 No base or high job IDs left.
7c3 No job IDs left for base or high queue.
7c5 No job IDs left for special queue.
7c7 Failed to get page table address.
7c9 No job IDs left for PIO jobs.
800 `prc/s_update` terminated abnormally.
801 `prc/s_dskutil` terminated abnormally.
825 Could not `alloc` msg buf.
830 Could not `pcreat` process.
835 Could not `alloc` msg buf.
900 DKDIP pid is null.
903 `alocmsg` failed.
906 Failed to remove the segment.
909 Cannot pump - other pump in progress.
90c Invalid DFC state for pump.
90e Cannot perform pump at this time.
911 DFC is not `S_ACT` for pump.
913 Invalid global pump state.
916 DFC is scheduled for major reinitialization - can't pump.
919 Pump not started - DFC is reserved.
91b Firmware version not known.
91c Failed to allocate message for FMGR.
91d Cannot `alloc` message for FMGR.
91e File stat error.
91f Pump-file is zero byte in size.
921 Pump-file is not a contiguous single extent file.
923 Can't get `segnum`.
926 Fail to queue the pump request.
929 Can't get `segnum`.
92c Fail to determine pump type.

`92d` Can't get `segnum` for DKDRV's internal pump buffer.
`92e` Failed to download the pumpcode.
`931` Request to read pump-file failed.
`933` Failed to read pump-file.
`936` Failed to send the pump request.
`939` Pump failed at last pump.
`93c` Failed to queue a version command in pump procedure.
`93e` Pumpcode version command failed.
`93f` Failed to start new pump.
`943` Invalid pump sequence.
`946` Invalid MDCT RID for pump file.
`949` Invalid segment size requested.
`94c` Failed to get a segment index for new segment.
`94e` Failed to get a segment number for new segment.
`951` Failed to allocate a message buffer.
`953` Failed to allocate a message buffer.
`956` Can't `iolock` the buffer.
`959` Can't allocate the message buffer for reading pumpfile.
`95c` Can't send the I/O message.
`95f` DFC pump: high priority queue full.
`963` DFC pump: base priority queue full.
`966` DFC pump: `getjobid` failed.
`969` DFC pump: `queuejob` failed.
`96c` Can't remove the segment used for pump buffer.
`96f` Invalid time out for pump procedure.
`971` Pump timeout - abort pump.
`980` Incorrect root `LOG_REC RID` from ECDORG.
`981` Incorrect root MDCT RID.
`a01` `s_update` started.
`a0a` Bad MAINT message opercode.
`a15` Can't open ECD.
`a1a` Cannot get specified unit UCB.
`a20` Specified unit UCB not reserved.
`a25` Failed to get "to" unit SDF.
`a2a` Open of "to" SDF failed.
`a30` `ugucbm()` failed.
`a35` No active mate found.
`a3a` Failed to reserve active mate UCB.
`a40` Failed to get "from" unit SDF.
`a45` Open of "from" SDF failed.
`a48` Can't read VTOC on active disk.
`a4a` Invalid VTOC on active disk.
`a55` Asynchronous write failure.
`a5a` Asynchronous write failure.
`a60` VTOC read (source disk) failed.
`a65` VTOC write (destination disk) failed.
`a6a` Too many partitions.
`a70` Block number not within VTOC.
`a75` Primary BBOOT partition is INVALID.
`a7a` Backup BBOOT partition is INVALID.

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`a80` Tried to access unopened file.
`a85` `segoff()` failure.
`a8a` `movetrap()` failure.
`a90` Disk read error.
`a95` Disk read error - correctly reread.
`a9a` Invalid file descriptor.
`aa0` `IOQUEUEM` failure.
`aa5` Maintenance job to DKDRV failed.
`aaa` Received application abort restore request.
`ab5` Invalid argument.
`aba` `segname` already exists.
`ac0` Segment exists.
`ac5` No segments available.
`aca` Not enough space.
`ad0` Bad `segndx`.
`ad3` Can't find a free `segindex`.
`ad5` `segoff` failure.
`ada` Driver startup message not received.
`ae0` Terminated externally.
`ae5` Invalid `U_ABRTRST` message.
`aea` Invalid maintenance message.
`af0` Unknown `ACK` message.
`af5` Process was faulted.
`b01` `s_dskutil` started.
`b06` Cannot connect to port `PT_DSKUTL`.
`b09` Bad MAINT message opercode.
`b10` Can't open ECD.
`b13` "DEST" unit not specified.
`b16` `ugucbm()` failed for "DEST" unit.
`b19` Cannot get "DEST" unit UCB.
`b1c` "DEST" unit UCB not reserved.
`b20` Failed to get "TO" unit SDF.
`b23` Open of "TO" SDF failed.
`b26` Dup of "TO" SDF failed.
`b29` `ugetucb()` failed for "FROM" unit.
`b36` Failed to reserve "FROM" unit UCB.
`b39` Failed to get "FROM" unit SDF.
`b3c` Open of "FROM" SDF failed.
`b40` Remove mate of "DEST" unit and reenter command.
`b46` Dup of "FROM" SDF failed.
`b48` Failed to read VTOC on "TO" disk.
`b49` Invalid VTOC on "TO" disk.
`b4b` Failed to read VTOC on "FROM" disk.
`b4c` Invalid VTOC on "FROM" disk.
`b50` Both VTOCs do not match.
`b5c` Read failure (DEST disk).
`b60` Read failure (SRC disk).
`b63` Too many partitions.
`b66` VTOCs do not match in size.
`b69` Sync write failure (DEST disk).

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`b6c` Block number not within VTOC.
`b70` Block number not within VTOC.
`b73` Block number not within VTOC.
`b80` Tried to access unopened file.
`b85` `segoff` failure.
`b8a` `movetrap` failure.
`b90` Disk read error.
`b95` Disk read error - correctly reread.
`b9a` Invalid file descriptor.
`ba0` `IOQUEUEM` failure.
`ba5` Maintenance job to DKDRV failed.
`baa` Received application abort restore request.
`bb5` Invalid argument.
`bba` `segname()` already exists.
`bc0` segment exists.
`bc5` No segments available.
`bca` Not enough space.
`bd0` Bad segndx.
`bd3` Can't find a free `segindex`.
`bd5` `segoff` failure.
`bda` Driver startup message not received.
`be0` Terminated externally.
`be5` Invalid `U_ABRTRST` message.
`bea` Invalid maintenance message.
`bf0` Unknown `ACK` message.
`bf5` Process was faulted.
`c02` Tape device already open.
`c0b` Device not active.
`c12` Open for both read and write.
`c15` Incorrect read / write access permissions.
`c18` Failed to send `test unit ready` command.
`c1b` `Test unit ready` command failed.
`c1e` `Test unit ready` command failed.
`c22` Failed to send `test unit ready` command.
`c25` `Test unit ready` command failed.
`c28` `Test unit ready` command failed.
`c2b` Failed to send `test unit ready` command.
`c2e` `Test unit ready` command failed.
`c32` `Test unit ready` command failed.
`c35` Failed to send `inquiry` command.
`c38` `Inquiry` command failed.
`c3b` `Inquiry` command failed.
`c3e` Insufficient `inquiry` data.
`c42` Failed to send `inquiry` command.
`c45` `Inquiry` command failed.
`c48` `Inquiry` command failed.
`c4b` Unknown device.
`c4e` Failed to send `read block limits` command.
`c52` `Read block limits` command failed.
`c55` `Read block limits` command failed.

`c58` Partition information is invalid.
`c5b` Not a supported tape device.
`c5e` Invalid tape I/O open sequence number.
`c62` Reserved field in partition used.
`c65` Device does not support variable record sizes.
`c68` Device does not support fixed records.
`c69` Fixed record size is invalid.
`c6a` Invalid record type specified.
`c6b` Record size greater than device capability.
`c6e` Record size less than device capability.
`c72` Failed to send tape setup command to DFC.
`c75` Tape setup command failed.
`c78` Invalid sequence number.
`c82` Base queue full.
`c85` Failed to get job ID.
`c88` Request exceeds DFC capability.
`c89` Request exceeds expscsi capability.
`c8b` No base/high job IDs left.
`c8e` No job IDs left for base/high queue.
`c92` Base queue full.
`c95` Failed to get job ID.
`c9b` Base queue full.
`c9e` Failed to get job ID.
`ca2` Entity type to space over is invalid.
`ca5` Base queue full.
`ca8` Failed to get job ID.
`cab` Base queue full.
`cae` Failed to get job ID.
`cb1` Device not active.
`cb2` Invalid state for closing device.
`cb7` Invalid state for closing device.
`cb8` Failed to send tape `rewind` command to DFC.
`cbb` Tape `rewind` failed.
`cbe` Invalid sequence number.
`cc2` Failed to send tape `space` command to DFC.
`cc5` Tape `space` command failed.
`cc8` Invalid sequence number.
`ccb` Failed to send `write filemarks` command to DFC.
`cce` `Write filemarks` command failed.
`cd2` Failed to send tape `space` command to DFC.
`cd5` Tape `space` command failed.
`cd8` Invalid sequence number.
`ce2` Device not active.
`ce4` Device not open.
`ce6` Incorrect read/write permissions.
`ce8` Base queue full.
`cea` Failed to get job ID.
`cec` Unable to inventory job.
`cf2` Device not active.
`cf4` Device not open.

`cf6` Incorrect read / write permissions.
`cf8` Base queue full.
`cfa` Failed to get job ID.
`cfc` Unable to inventory job.
`d01` Wrong device type specified.
`d02` Failed to send `mode sense` command.
`d05` `Mode sense` command failed.
`d08` `Mode sense` command failed.
`d0b` Failed to send `mode sense` command.
`d0e` `Mode sense` command failed.
`d12` `Mode sense` command failed.
`d15` Not enough data returned from `mode sense` command.
`d18` Unexpected amount of data returned from `mode sense` command.
`d1b` Device is write protected.
`d1e` Failed to obtain expected mode pages.
`d22` Failed to send `mode select` command.
`d25` `Mode select` command failed.
`d28` `Mode select` command failed.
`d2b` Invalid tape sequence number.
`d2e` Multi-partition tape is not supported.
`d31` Wrong device type specified.
`d32` Failed to send `mode sense` command.
`d35` `Mode sense` command failed.
`d38` `Mode sense` command failed.
`d3b` Failed to send `mode sense` command.
`d3e` `Mode sense` command failed.
`d42` `Mode sense` command failed.
`d45` Not enough data returned from `mode sense` command.
`d48` Unexpected amount of data returned from `mode sense` command.
`d4b` Device is write protected.
`d4c` 120 meter tapes are not supported.
`d4e` Failed to obtain expected mode pages.
`d52` Failed to send `mode select` command.
`d55` `Mode select` command failed.
`d58` `Mode select` command failed.
`d5b` Invalid tape sequence number.
`d5e` Multi-partition tape is not supported.
`d61` Wrong device type specified.
`d62` Invalid density specified.
`d65` Failed to send `mode sense` command.
`d68` `Mode sense` command failed.
`d6b` `Mode sense` command failed.
`d6e` Failed to send `mode sense` command.
`d72` `Mode sense` command failed.
`d75` `Mode sense` command failed.
`d78` Not enough data returned from `mode sense` command.
`d7b` Unexpected amount of data returned from `mode sense` command.
`d7e` Device is write protected.
`d82` Requested density does not match set device density.
`d85` Failed to obtain expected mode pages.

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`d88` Failed to send `mode select` command.
`d8e` `Mode select` command failed.
`d92` `Mode select` command failed.
`d95` Invalid tape sequence number.
`da1` Wrong device type specified.
`da2` Invalid density specified.
`da5` Failed to send `mode sense` command.
`da8` `Mode sense` command failed.
`dab` `Mode sense` command failed.
`dae` Failed to send `mode sense` command.
`db2` `Mode sense` command failed.
`db5` `Mode sense` command failed.
`db8` Not enough data returned from `mode sense` command.
`dbb` Unexpected amount of data returned from `mode sense` command.
`dbe` Device is write protected.
`dc2` Requested density does not match set device density.
`dc5` Failed to obtain expected mode pages.
`dc8` Failed to send `mode select` command.
`dce` `Mode select` command failed.
`dd2` `Mode select` command failed.
`dd5` Invalid tape sequence number.
`e01` Not SCSI DFC.
`e03` Invalid DFC state for pump.
`e05` `dtchintr()` call returned fail.
`e07` Unable to clear DDSBS.
`e09` Unable to send command to BIC.
`e0a` Unable to send command to BIC.
`e0b` `atchintr()` call returned fail.
`e0d` `enabintr()` call returned fail.
`e0f` `getjobid()` failed.
`e11` Failed to write word in BIC FIFO.
`e13` `wakeup()` PIO failed.
`e15` `version` command failed.
`e17` `getjobid()` failed.
`e19` Failed to write word in BIC FIFO.
`e1a` `wakeup()` PIO failed.
`e1b` `version` command failed.
`e1c` Unable to allocate message for FMGR.
`e1d` 1-byte wide firmware version not known.
`e1f` Unable to allocate message for FMGR.
`e20` Unable to do a `stat()` on the pumpfile.
`e22` Pumpfile invalid size.
`e24` Pumpfile is not a single extent contiguous file.
`e26` Unable to get segnum.
`e28` Unable to `iolock` the buffer.
`e2a` Unable to allocate the message buffer for reading pumpfile.
`e2c` Unable to send the I/O message.
`e2e` Unable to read pumpfile header.
`e2f` Pumpfile has invalid size.
`e30` 4-wide firmware needs to be reprogrammed, retry later.

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`e32` Unable to get segnum.
`e33` Unable to get segnum for DKDRV's internal pump buffer.
`e35` Unable to download the pumpcode.
`e37` Unable to request reading pumpfile.
`e39` Unable to read pumpfile.
`e3a` DFC pump: `getjobid` failed.
`e3b` Failed to write word in BIC FIFO.
`e3d` Failed to write word in BIC FIFO.
`e3f` Failed to write word in BIC FIFO.
`e41` Failed to write word in BIC FIFO.
`e43` `wakeup` PIO failed.
`e45` Pump failed at last pump.
`e46` Cannot remove the segment.
`e47` `dtchintr()` call returned fail.
`e48` Unable to send command to BIC.
`e49` Invalid pump sequence.
`e4a` `dtchintr()` call returned fail.
`e4b` Cannot remove the segment.
`e4c` Unable to send command to BIC.
`e50` Invalid header magic number.
`e53` 1-byte wide firmware and pumpfile are incompatible - issue.
`e55` 1-byte wide firmware and pumpfile are incompatible - generic.
`e57` 4-byte wide firmware and pumpfile are incompatible with 1-byte wide firmware.
`e59` Pumpfile has different revision level.
`e5a` 1-byte wide firmware and pumpfile are incompatible.
`e5c` Unable to determine revision levels.
`e60` Unable to send command to BIC.
`e62` `jcistat` command failed.
`e64` Read status of BIC failed.
`e66` Failed to read BIC FIFO.
`e68` Failed to read BIC FIFO.
`e69` Received interrupt but no response.
`e6a` Failed to clear BIC interrupt.
`e6b` `dtchintr()` call returned fail.
`e6c` Unable to send command to BIC.
`e6d` `dtchintr` call returned fail.
`e6e` `atchintr` call returned fail.
`e6f` `enabintr` call returned fail.
`e70` DFC flash programming timed out.
`e71` Unable to clear DDSBS.
`e72` Unable to send command to BIC.
`e73` DFC `version` command failed.
`e74` Unable to send command to BIC.
`e78` `initmem5()` DMAC initialization failed.
`e7a` `dtchintr` call returned fail.
`e7b` `atchintr` call returned fail.
`e7c` `enabintr` call returned fail.
`e7d` `getjobid` failed.
`e7f` Unable to send `version` command failed.
`e80` Unrecognizable DKDRV internal job type.

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`e85` Response contains jobid not in use.
`e86` IO job has no associated IO message.
`e88` IO message "ms_to" field is invalid.
`e8a` Message type not IOREAD or IOWRITE.
`e8c` No job found in inventory data.
`e8d` Invalid completion code returned by DFC.
`e8f` Job reported error.
`e95` NULL message buffer pointer.
`e96` Invalid "ms_to" field in message.
`e97` Message buffer not marked allocated.

ID . . . . . APP-DFC-APPA-F
GENERIC . . . . . UNIX RTR R21.27 and R21.30
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

DKDRV Information Codes

NOTE: These information codes are in hexadecimal notation.

`010` No inventory room - restructure DKDRV.
`020` Report failure.
`030` Access to BIC failed.
`035` Desired BIC status not obtained.
`039` IO job has no associated IO message.
`040` IO message "`ms_to`" field is invalid.
`041` Message buffer not marked allocated.
`045` Message type not `IOREAD` or `IOWRITE`.
`04a` No job found in inventory data.
`050` Invalid completion code returned by DFC.
`055` Job reported error.
`05a` Response contains job ID not in use.
`060` Response specified an unknown device.
`06f` Drive status error.
`070` Special queue full.
`073` `spqjobid()` failed.
`076` `queuejob()` failed for DFC change maintenance mode command.
`07a` `intpwait()` function failed for DFC change maintenance mode.
`07c` Special queue full for SBUS change mode job.
`07e` `spqjobid()` failed for SBUS change mode command.
`082` `queuejob()` for SBUS change maintenance mode failed.
`085` `intpwait()` function failed for SBUS change maintenance mode.
`098` DFC version command: special queue full.
`09a` DFC version command: `spqjobid` failed.
`09c` Version command fail.
`09e` `dfc_vers`: `intpwait` function failed.
`0a0` `initmem1()` failed.
`0a2` Timeout request to get DIOP feature level failed.
`0a3` DKDRV timing chain index 0 already assigned.
`0a4` Failed to read `btparm` record.
`0a5` No mate for boot device found.
`0a8` DFC restore failed during boot.
`0ab` Fail to change the usable bit for SBUS.
`0af` MHD marked `S_ACT` but DFC not marked `S_ACT`.
`0b1` MHD marked `S_ACT` but SBUS not marked `S_ACT`.

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0b3 Simplex MHD restore failed config denied removal.
0b5 Simplex MHD restore failed config OKed removal.
0b8 MHD restore failed and no S_ACT mate.
0c0 initkint() (interrupt detach / attach) failed.
0c3 Fail to request pump after boot.
0c6 Invalid MHD to be restored during boot.
0c9 Invalid mate MHD.
0ca RID to UCB conversion failed.
0cb RID update and release failed.
0cf Duplicate fields in the message do not match.
0d5 Byte offset not on word boundary.
0d7 Maintenance job failure - see DKDRV error report.
0d9 PSM sent a bad power transition message.
0db temp message - old message returned.
0dd Unknown maintenance ACK received.
0df Unrecognizable message type.
0e2 Unrecognizable device.
0e5 Unknown FMGR ACK message received.
0e6 Segment removed failed, pump buffer retained.
0e8 Unknown MMGR ACK message received.
0ec Unknown DKDRV ACK message received.
0ef Unknown ACK message received.
0f0 Incorrect swap LOG_REC RID from ECDORG.
0f1 Incorrect SWAP MDCT RID.
0f2 Can't update the ROOT/SWAP device table.
0f3 dlm indicator alocmsg() failed (to SIM).
0f4 dlm indicator alocmsg() failed (to DKDIP).
0f6 dlm indicator alocmsg() failed(to DKDIP).
0f8 dlm indicator alocmsg() failed(to DKDIP).
0fa Could not get a CDLM timer entry.
0fb dlmstrt ost returned SWFAIL.
0fd microstore limpmode flag set.
0fe Bad return from dlmstrt.
0ff Unknown RID from DKDIP.
100 Invalid operation code in UTIL message.
101 Power down of an active unit.
102 DFC power down message received - unit still usable.
103 Device powered down - abort client.
104 Power down message received - unit still usable.
105 dlm indicator alocmsg() failed.
106 Special priority queue full.
107 spqjobid() failed.
108 Invalid device type for power up check.
10a intpwait() function failed.
110 No VTOC on disk pack.
113 VTOC too large for DKDRV to handle.
116 Invalid partition number in VTOC entry.
119 Invalid partition number in message.
140 Virtual address does not map into segment number.
145 iolock() failed.

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`14a` `uniolock()` failed.
`160` RID to UCB LLA call failed.
`165` RID update and release failed.
`16a` RID unknown by DKDRV.
`170` RID to UCB LLA call failed.
`175` RID update and release failed.
`17a` RID to UCB LLA call failed.
`180` RID update and release failed.
`185` RID to UCB LLA call failed.
`18a` RID update and release failed.
`190` Invalid inhibit administration opcode.
`1a0` `dtchintr()` call returned fail.
`1a5` `atchintr()` call returned fail.
`1aa` `enabintr()` call returned fail.
`1b0` ECD attach failed.
`1b3` DLM INIT failed.
`1b5` CONFIG OPEN failed.
`1b8` atchdata call to ECD failed.
`1bc` No DFCs in ECD.
`1be` DFC growth failed.
`1c3` downucbs ECD call failed.
`1c6` SBUS growth failed.
`1c9` downucbs ECD call failed.
`1cc` Growth of SCSI device failed.
`1ce` downucbs ECD call failed.
`1d1` SMD MHD growth failed.
`1d3` Too many devices.
`1d6` RID to UCB conversion failed.
`1d8` Invalid device type.
`1d9` Unable to determine DFC type.
`1dc` RID update and release failed.
`1de` Device is unequipped.
`1df` Invalid DFC internal device ID.
`1e1` Channel RID to UCB conversion failed.
`1e3` Invalid SBUS internal device ID.
`1e5` DFC RID to UCB conversion failed.
`1e7` Invalid device ID for SCSI device.
`1e9` SBUS RID to UCB conversion failed.
`1eb` Invalid SBUS internal device id.
`1ed` DFC RID to UCB conversion failed.
`1ef` Invalid device ID for SMD MHD.
`1f2` DFC RID to UCB conversion failed.
`1f4` Incorrect device type for the device's control unit.
`1fc` Memory initialization failed.
`1fe` DKDRV port attach failed.
`203` `getpta()` function failed.
`206` RID to UCB conversion failed.
`209` `idmadev()` (write to DMAC RAM) failed.
`20c` `atchintr` call failed.
`20f` RID not known by DKDRV.

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213 DFC being de-grown is in use.
216 Update of DKDRV local DFC UCB failed.
219 DFC being de-grown not in UNEQIP state.
21c SBUS being de-grown is in use.
21f Update of DKDRV local SBUS UCB failed.
223 SBUS being de-grown not in UNEQIP state.
226 Unit being de-grown is in use.
229 Update of DKDRV local device UCB failed.
22c Unit being de-grown not in UNEQIP state.
22f RID to UCB conversion failed.
233 RID update and release failed.
236 Drive type in ECD does not agree with backplane - restore aborted.
239 RID to UCB conversion failed.
23a RID update and release failed.
23b RID to UCB conversion failed.
23c Get option block for DFC failed.
23d Invalid `eirflag` field in DFC option block.
23e Get option block for MHD failed.
240 Delay (failed to find interrupt set in BIC).
242 RID to UCB conversion failed.
250 Job complete code == fail.
252 Job request not allowed.
254 Job request not allowed.
258 Tape device already opened.
25a Driver I/O error.
25c No `S_ACT` device - open.
260 Incorrect MDCT from IO message.
263 Growth of device failed.
265 No RIDs in ECD MDCT.
268 Warning - enlarge DKDRV's internal MDCT.
26c Disk specific write not allowed.
270 No `S_ACT` device - read.
275 Invalid partition number in read message.
278 Access to DIAG partition is not allowed - read.
27a Unable to inventory job.
27d `bhqjobid()` failed.
280 `io_blk` exceeds partition size - read.
290 No `S_ACT` device - write.
295 Invalid partition number in write message.
29a Tried to write into protected partition.
2b1 No job IDs left.
2ba Unable to inventory all jobs.
2be Access to DIAG partition is not allowed - write.
2c0 `io_blk` exceeds partition size - write.
305 Unrecognizable DKDRV internal job type.
307 Unexpected denial of request to remove MHD.
308 Duplex operation compromised due to removing MHD.
320 Boot indicator message allocation failed.
325 INIT entry failed.
32a Unexpected event.

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340 do_error(0x340) FLT_SINIT fault code.
343 Failed to restart driver.
346 Old non-queued audit error message.
349 Unexpected fault code.
34c Critical hit - S_RSP.
34f Critical hit - S_MSG.
353 Driver state error.
355 Calling dfcinit() for lack of "warm" restart.
356 ss32b() failed.
359 PIC never reset CMD IN PROG flag.
35f progio (D2SBS clear) failed.
363 progio (BIC initialization and PIC reset) failed.
366 initmem5 (DMAC RAM initialization) failed.
369 enabintr function failed.
36c progio (send ABORT command to PIC) failed.
36f progio (set BIC IFEN flag) failed.
373 Unknown RID faulted.
376 PIO lost for a unit.
379 Unknown RID faulted.
37c Unexpected fault code.
37f Message buffer audit error - abort maintenance on this unit.
383 timereq() failed - dfcinit().
391 invalid pdfptr.
392 invalid pdfptr.
395 RID to UCB LLA call failed.
397 Message alloc failed (to FMGR).
398 Could not get a timer entry for FMGR.
39b Major DFC reinitialization due to either operational problems or manual request.
39c Tape operations aborted.
39e Warning - queue full detected.
3a6 Invalid dfcinit() sequence.
3a9 Can't identify panic dump device.
3ac Incorrect PANIC DUMP RID.
3af ss32b() failed.
3b3 PIC never reset CMD IN PROG flag.
3b6 progio (D2SBS clear) failed.
3b9 progio (BIC initialization and PIC reset) failed.
3ba Failed to clear BIC INTP.
3bc kint() - stray interrupts detected.
3be kint() entered before kfault() after panic dump.
3d0 RID not known by DKDRV.
3d3 DKDRV has aborted client.
3d5 Invalid maintenance state.
3d8 Device file not open.
3dc Another process has device file open.
3dd Tape device is already open.
3de Request prohibited on S_ACT DFC.
3e1 maint() attach interrupt failed.
3e3 maint() enable interrupt failed.
3e5 UCB is not a DFC.

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3e8 DMAC RAM initialization failed.
3ec Detach / attach / enable interrupt failed.
3ef Detach interrupt failed.
401 Device type is not SCSI.
402 FORMAT - unit is not a disk.
403 Device type is not SCSI for explicit SCSI command.
404 DFC must be active.
405 DFC is not ACTIVE for SCSI command.
406 SBUS must be active.
407 SBUS is not ACTIVE for SCSI command.
409 CONFIG denied request to remove unit.
40a Base queue full.
40b Time limit exceeds capability.
40c May only restore S_OOS units.
40d Failed to get job id.
40e Restore request no good - DFC not S_ACT.
40f queuejob failed.
412 Restore request no good - SBUS not S_ACT.
415 Compare / correct - unit not a disk.
418 Compare / correct - DFC not S_ACT.
41b Compare / correct - SBUS not ACTIVE.
41d May not compare / correct a S_INIT unit.
41f Only one compare / correct is allowed to run at one time.
422 May only restore S_OOS units.
425 SBUS restore - DFC is not ACTIVE.
426 MHD or MT restore - SBUS is not ACTIVE.
427 MHD restore - DFC is not ACTIVE.
428 DIAG SYSGEN PIO failed.
429 Restore not allowed - device not supported.
42a UCB is not a DFC UCB.
42c Not allowed to DGN an S_ACT unit.
42e Special queue full.
432 Invalid device to be diagnosed.
435 spqjobid() failed.
438 queuejob() failed.
43c getdmaa() function failed.
43e Received WSETUP0 before SPECDMA.
442 WSETUP1 received before WSETUP0.
445 uniolock() failed.
448 getdmaa function failed.
44c Invalid disk lock process.
44f Base queue full.
452 bhqjobid() failed.
455 queuejob failed.
458 Version job failed.
460 FORMAT requires non-S_ACT MHD.
462 FORMAT/VERIFY - unit is not a disk.
465 FORMAT/VERIFY requires S_ACT DFC.
468 INIT/VFY MHD - SBUS not S_ACT.
46a VERIFY in progress - retry later.

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`470` Start track / block greater than last track / block.
`473` Base queue full.
`476` `bhqjobid()` failed.
`479` MHD usability changed because of INIT operation.
`47c` `queuejob()` failed.
`480` Invalid when MHD is `S_ACT`.
`483` DFC must be `S_ACT`.
`486` Invalid when MHD is `S_ACT`.
`489` DFC must be `S_ACT`.
`48b` `REMAP devserv()` failed.
`48d` Device major status update failed.
`48f` Failed to initialize device status.
`492` Base queue full.
`494` Unable to queue LM job.
`496` Invalid DFC type for DFC reset request.
`498` DFC is not ACTIVE to be reset.
`49a` Firmware is running - cannot reset DFC.
`49f` DFC type does not support pump.
`4a3` DFC is not ACTIVE for pumpcode downloading.
`4a6` Other pump in progress - retry later.
`4a9` Unable to queue pump job.
`4aa` Device must be non-ACT to initialize error message inhibit flag.
`4ab` CLRMAEC - unit is not a disk.
`4ac` Invalid opercode in maintenance message.
`4ae` Unexpected maintenance interrupt.
`4b3` `dtchintr()` call failed.
`4b6` Maintenance work timed out.
`4b9` No base or high job IDs left.
`4bc` Failed to get page table address.
`4be` No job IDs left for base or high queue.
`4c2` Offset of the SCSI command is not on word boundary.
`4c5` Explicit SCSI command, response and data are not on the same segment.
`4c8` Base queue full for SCSI command.
`4ca` Request exceeds DFC capability.
`4cb` Invalid second device for SCSI command.
`4cc` Request exceeds expscsi capability.
`4cd` Unable to queue the SCSI command.
`4d0` `readvtoc()` function failed.
`4d1` Another pump in progress, retry later.
`4d2` Flash reprogram not started.
`4d3` Unable to program flash memory on S_ACT unit.
`4d5` `readvtoc()` job failed.
`4d6` Unable to clear DDSBS.
`4d8` Unable to send command to BIC.
`4d9` `getpta()` function failed.
`4da` VTOC sort function failed.
`4db` `initmem5()` DMAC init failed.
`4dc` Unable to send command to BIC.
`4dd` `dtchintr` call returned fail.
`4de` `atchintr` call returned fail.

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`4df` DFC pump: `getjobid()` failed.
`4e0` Invalid `newvtoc()` sequence.
`4e1` Failed to write word in BIC FIFO.
`4e2` `enabintr()` call returned fail.
`4e3` Failed to write word in BIC FIFO.
`4e5` Partition number out of range for DKDRV.
`4e6` Failed to write word in BIC FIFO.
`4e7` Failed to write word in BIC FIFO.
`4e8` Partition number out of range for VTOC.
`4e9` `wakeup()` PIO failed.
`4eb` Unable to get firmware versions.
`4f1` Flash reprogram not started.
`4f2` Unable to clear DDSBS.
`4f3` Unable to send command to BIC.
`4f5` DFC pump: `getjobid()` failed.
`4f7` Failed to write word in BIC FIFO.
`4f9` Failed to write word in BIC FIFO.
`4fa` Failed to write word in BIC FIFO.
`4fb` Failed to write word in BIC FIFO.
`4fc` `wakeup()` PIO failed.
`500` Base queue full for maintenance read.
`503` Tried to use invalid VTOC for maintenance read.
`505` Invalid partition number in message.
`508` Invalid block in partition.
`50c` `bhqjobid()` failed for maintenance read.
`50e` Unable to inventory job for maintenance read.
`520` Base queue full for maintenance write.
`523` Tried to use invalid VTOC for maintenance write.
`526` Invalid partition number in message.
`529` Tried to write into protected partition.
`52c` Invalid block in partition.
`537` MHD usability changed because of `pdfwrite` job.
`539` `bhqjobid()` failed for maintenance write.
`53b` Unable to inventory job for maintenance write.
`550` Physical device file not opened.
`553` Incorrect READ / WRITE access permissions.
`556` `iolock` failed.
`55b` `getjobid` failed.
`55f` Maintenance I / O request to a non-disk device.
`56a` DISK read or write requires active DFC.
`56f` DISK read or write requires active SBUS.
`573` This physical device file already open.
`575` Device major status update failed.
`57a` Update of device file variables failed.
`580` May not maintenance write ACT device.
`583` SDF prematurely closed during a restore.
`585` `uniolock` failed.
`5a0` Command to BIC failed.
`5a5` Command to PIC failed.
`5aa` Clear of DDSBS failed.

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5b0 Read status of DDSBS failed.
5b5 Read of BIC FIFO failed.
5ba Write of BIC FIFO failed.
5bc Read status of BIC failed.
5bf BIC command to read HA shadow register failed.
5c3 Read status of SCSI HA shadow register failed.
5c5 `progio cmdtype` not defined.
5e0 `queuejob()` failed.
5e1 Base queue full.
5e2 `getjobid()` failed.
5ec `intpwait()` function failed.
5f0 `Readdisk queuejob` failed.
5f1 `Readdisk` base queue full.
5f2 `Readdisk getjobid` failed.
5fc `Readdisk intpwait` function failed.
600 Excessive errors - device being reset.
601 Excessive errors - device being reset.
603 SBUS work terminated - DFC going S_OOS.
609 DFC sub-device work terminated - DFC going S_OOS.
60a Tape work terminated - DFC going S_OOS.
60c SBUS sub-device work terminated - SBUS going S_OOS.
60d Tape work terminated - SBUS going S_OOS.
60e CONFIG `chgstate()` call failed.
613 `dtchintr()` failed.
615 `devserv(OFFLINE)` function failed.
618 `devserv(OFFLINE)` job failed.
61c `sbuserv(OFFLINE)` function failed.
61f `sbuserv(OFFLINE)` job failed.
650 RID to UCB LLA call failed.
653 RID to UCB LLA call failed.
655 RID to UCB LLA call failed.
658 RID to UCB LLA call failed.
65c RID to UCB LLA call failed.
65e RID to UCB LLA call failed.
661 RID to UCB LLA call failed.
663 RID to UCB LLA call failed.
666 RID to UCB LLA call failed.
667 RID to UCB LLA call failed.
669 RID to UCB LLA call failed.
673 RID to UCB LLA call failed.
678 RID to UCB LLA call failed.
67a EIR contains job ID not in use.
67b RID to UCB LLA call failed.
67c RID to UCB LLA call failed.
67d RID to UCB LLA call failed.
67e RID to UCB LLA call failed.
682 RID to UCB LLA call failed.
6a9 Retry PIO failed.
6aa Failed to requeue job.
6b0 Remake: job ID not in use.

`6b5` Remake: bad message type.
`6be` Restore - invalid device type.
`6c0` Unable to change usable bit for DFC.
`6c3` `CONFIG chgstate` call failed.
`6c5` DKDRV DFC memory init failed.
`6c8` `initmem5()` (DMAC init) failed.
`6ca` `initmem6()` (atchintr) failed.
`6ce` `progio` (D2SBS clear) failed.
`6d1` `progio` (BIC initialization and PIC reset) failed.
`6d3` `enabintr()` failed.
`6d5` `SYSGEN` function failed.
`6d8` `sysgen` job failed.
`6d9` `dfc_vers` request function failed.
`6da` `dfc_vers` job failed.
`6db` `dfc_vers` request function failed.
`6dd` `dfc_vers` job failed.
`6df` `dfcserv(ONLINE)` function failed.
`6e2` `dfcserv(ONLINE)` job failed.
`6e5` CONFIG chgstate call failed.
`6e8` Unable to change usable bit for DFC.
`6eb` Cannot request a timer for pump after DFC restore.
`6ef` Invalid DFC restore sequence number.
`6f2` Unit is in FULL DLM - abort restore.
`6f5` Mate unit is in FULL DLM - abort restore.
`6f8` Unable to change usable bit for MHD.
`6fb` CONFIG chgstate call failed.
`6fe` DKDRV MHD memory initialization failed.
`6ff` `dlm_chks()` denied restore request.
`701` `readdisk()` function failed.
`703` Disk job `(readdisk)` failed.
`706` `devserv(ONLINE,RSTJOB)` function failed.
`709` DFC failed to put MHD on-line.
`70c` `readvtoc()` function failed.
`70e` Disk job `(readvtoc)` failed.
`711` VTOC integrity check failed.
`713` CONFIG chgstate call failed.
`715` Unable to change usable bit for MHD.
`718` Invalid MHD restore sequence number.
`71c` CONFIG chgstate call failed.
`71e` `sbuserv(ONLINE)` function failed.
`722` `sbuserv(ONLINE)` job failed.
`725` CONFIG chgstate call failed.
`728` Unable to change usable bit for SBUS.
`72c` Invalid SBUS restore sequence number.
`730` Maintenance state audit requested.
`732` Invalid MHD "`compcor`" sequence number.
`741` Unit is in FULL DLM - abort restore.
`742` Failed to change usable bit for tape.
`745` CONFIG `chgstate` call failed.
`748` DKDRV tape memory initialization failed.

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74b devserv(ONLINE) function failed.
74e Failed to put tape device ONLINE.
752 CONFIG chgstate call failed.
755 Failed to change usable bit for tape.
758 Invalid tape restore sequence number.
75b DIOP restore not allowed - mate MHD is active.
75e DIOP restore not allowed - MHD is marked essential.
760 progio (set BIC IFEN flag) failed.
761 Wakeup PIO failed.
762 Resume PIO failed.
765 progio (send SYSGEN command to PIC) failed.
76a intpwait function failed.
770 Job timed out.
775 DFC timed out.
776 Invalid pump state.
778 Cannot request timer for DFC pump.
77a DFC entering overload.
77c DFC leaving overload.
77f DFC usability audit failed.
790 Timing table full.
795 Timeout request is out of range.
7c0 No base or high job IDs left.
7c3 No job IDs left for base or high queue.
7c5 No job IDs left for special queue.
7c7 Failed to get page table address.
7c9 No job IDs left for PIO jobs.
800 prc/s_update terminated abnormally.
801 prc/s_dskutil terminated abnormally.
825 Could not alloc msg buf.
830 Could not pcreat process.
835 Could not alloc msg buf.
900 DKDIP pid is null.
903 alocmsg failed.
906 Failed to remove the segment.
909 Cannot pump - other pump in progress.
90c Invalid DFC state for pump.
90e Cannot perform pump at this time.
911 DFC is not S_ACT for pump.
913 Invalid global pump state.
916 DFC is scheduled for major reinitialization - can't pump.
919 Pump not started - DFC is reserved.
91b Firmware version not known.
91c Failed to allocate message for FMGR.
91d Cannot alloc message for FMGR.
91e File stat error.
91f Pump-file is zero byte in size.
921 Pump-file is not a contiguous single extent file.
923 Can't get segnum.
926 Fail to queue the pump request.
929 Can't get segnum.

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92c Fail to determine pump type.
92d Can't get `segnum` for DKDRV's internal pump buffer.
92e Failed to download the pumpcode.
931 Request to read pump-file failed.
933 Failed to read pump-file.
936 Failed to send the pump request.
939 Pump failed at last pump.
93c Failed to queue a version command in pump procedure.
93e Pumpcode version command failed.
93f Failed to start new pump.
943 Invalid pump sequence.
946 Invalid MDCT RID for pump file.
949 Invalid segment size requested.
94c Failed to get a segment index for new segment.
94e Failed to get a segment number for new segment.
951 Failed to allocate a message buffer.
953 Failed to allocate a message buffer.
956 Can't `iolock` the buffer.
959 Can't allocate the message buffer for reading pumpfile.
95c Can't send the I/O message.
95f DFC pump: high priority queue full.
963 DFC pump: base priority queue full.
966 DFC pump: `getjobid` failed.
969 DFC pump: `queuejob` failed.
96c Can't remove the segment used for pump buffer.
96f Invalid time out for pump procedure.
971 Pump timeout - abort pump.
980 Incorrect root `LOG_REC RID` from ECDORG.
981 Incorrect root MDCT RID.
990 The UCB RID for the "alternate" device is invalid.
992 Update of DKDRV local device UCB failed.
994 Invalid MDCT RID.
996 Failed to get MDCT record.
998 Update of DKDRV local device UCB failed.
a01 `s_update` started.
a0a Bad MAINT message opercode.
a15 Can't open ECD.
a1a Cannot get specified unit UCB.
a20 Specified unit UCB not reserved.
a25 Failed to get "to" unit SDF.
a2a Open of "to" SDF failed.
a30 `ugucbm()` failed.
a35 No active mate found.
a3a Failed to reserve active mate UCB.
a40 Failed to get "from" unit SDF.
a45 Open of "from" SDF failed.
a48 Can't read VTOC on active disk.
a4a Invalid VTOC on active disk.
a55 Asynchronous write failure.
a5a Asynchronous write failure.

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a60 VTOC read (source disk) failed.
a65 VTOC write (destination disk) failed.
a6a Too many partitions.
a70 Block number not within VTOC.
a75 Primary BBOOT partition is INVALID.
a7a Backup BBOOT partition is INVALID.
a80 Tried to access unopened file.
a85 `segoff()` failure.
a8a `movetrap()` failure.
a90 Disk read error.
a95 Disk read error - correctly reread.
a9a Invalid file descriptor.
aa0 `IOQUEUEM` failure.
aa5 Maintenance job to DKDRV failed.
aaa Received application abort restore request.
ab5 Invalid argument.
aba `segname` already exists.
ac0 Segment exists.
ac5 No segments available.
aca Not enough space.
ad0 Bad `segndx`.
ad3 Can't find a free `segindex`.
ad5 `segoff` failure.
ada Driver startup message not received.
ae0 Terminated externally.
ae5 Invalid `U_ABRTRST` message.
aea Invalid maintenance message.
af0 Unknown `ACK` message.
af5 Process was faulted.
b01 `s_dskutil` started.
b06 Cannot connect to port `PT_DSKUTL`.
b09 Bad MAINT message opercode.
b10 Can't open ECD.
b13 "DEST" unit not specified.
b16 `ugucbm()` failed for "DEST" unit.
b19 Cannot get "DEST" unit UCB.
b1c "DEST" unit UCB not reserved.
b20 Failed to get "TO" unit SDF.
b23 Open of "TO" SDF failed.
b26 Dup of "TO" SDF failed.
b29 `ugetucb()` failed for "FROM" unit.
b36 Failed to reserve "FROM" unit UCB.
b39 Failed to get "FROM" unit SDF.
b3c Open of "FROM" SDF failed.
b40 Remove mate of "DEST" unit and reenter command.
b46 Dup of "FROM" SDF failed.
b48 Failed to read VTOC on "TO" disk.
b49 Invalid VTOC on "TO" disk.
b4b Failed to read VTOC on "FROM" disk.
b4c Invalid VTOC on "FROM" disk.

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`b50` Both VTOCs do not match.
`b5c` Read failure (DEST disk).
`b60` Read failure (SRC disk).
`b63` Too many partitions.
`b66` VTOCs do not match in size.
`b69` Sync write failure (DEST disk).
`b6c` Block number not within VTOC.
`b70` Block number not within VTOC.
`b73` Block number not within VTOC.
`b80` Tried to access unopened file.
`b85` `segoff` failure.
`b8a` `movetrap` failure.
`b90` Disk read error.
`b95` Disk read error - correctly reread.
`b9a` Invalid file descriptor.
`ba0` `IOQUEUEM` failure.
`ba5` Maintenance job to DKDRV failed.
`baa` Received application abort restore request.
`bb5` Invalid argument.
`bba` `segname()` already exists.
`bc0` segment exists.
`bc5` No segments available.
`bca` Not enough space.
`bd0` Bad segndx.
`bd3` Can't find a free `segindex`.
`bd5` `segoff` failure.
`bda` Driver startup message not received.
`be0` Terminated externally.
`be5` Invalid `U_ABRTRST` message.
`bea` Invalid maintenance message.
`bf0` Unknown `ACK` message.
`bf5` Process was faulted.
`c02` Tape device already open.
`c0b` Device not active.
`c12` Open for both read and write.
`c15` Incorrect read / write access permissions.
`c18` Failed to send `test unit ready` command.
`c1b` `Test unit ready` command failed.
`c1e` `Test unit ready` command failed.
`c22` Failed to send `test unit ready` command.
`c25` `Test unit ready` command failed.
`c28` `Test unit ready` command failed.
`c2b` Failed to send `test unit ready` command.
`c2e` `Test unit ready` command failed.
`c32` `Test unit ready` command failed.
`c35` Failed to send `inquiry` command.
`c38` `Inquiry` command failed.
`c3b` `Inquiry` command failed.
`c3e` Insufficient `inquiry` data.
`c42` Failed to send `inquiry` command.

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c45 `Inquiry` command failed.
c48 `Inquiry` command failed.
c4b Unknown device.
c4e Failed to send `read block limits` command.
c52 `Read block limits` command failed.
c55 `Read block limits` command failed.
c58 Partition information is invalid.
c5b Not a supported tape device.
c5e Invalid tape I/O open sequence number.
c62 Reserved field in partition used.
c65 Device does not support variable record sizes.
c68 Device does not support fixed records.
c69 Fixed record size is invalid.
c6a Invalid record type specified.
c6b Record size greater than device capability.
c6e Record size less than device capability.
c72 Failed to send tape setup command to DFC.
c75 Tape setup command failed.
c78 Invalid sequence number.
c82 Base queue full.
c85 Failed to get job ID.
c88 Request exceeds DFC capability.
c89 Request exceeds expscsi capability.
c8b No base/high job IDs left.
c8e No job IDs left for base/high queue.
c92 Base queue full.
c95 Failed to get job ID.
c9b Base queue full.
c9e Failed to get job ID.
ca2 Entity type to space over is invalid.
ca5 Base queue full.
ca8 Failed to get job ID.
cab Base queue full.
cae Failed to get job ID.
cb1 Device not active.
cb2 Invalid state for closing device.
cb7 Invalid state for closing device.
cb8 Failed to send tape `rewind` command to DFC.
cbb Tape `rewind` failed.
cbe Invalid sequence number.
cc2 Failed to send tape `space` command to DFC.
cc5 Tape `space` command failed.
cc8 Invalid sequence number.
ccb Failed to send `write filemarks` command to DFC.
cce `Write filemarks` command failed.
cd2 Failed to send tape `space` command to DFC.
cd5 Tape `space` command failed.
cd8 Invalid sequence number.
ce2 Device not active.
ce4 Device not open.

`ce6` Incorrect read / write permissions.
`ce8` Base queue full.
`cea` Failed to get job ID.
`cec` Unable to inventory job.
`cf2` Device not active.
`cf4` Device not open.
`cf6` Incorrect read / write permissions.
`cf8` Base queue full.
`cfa` Failed to get job ID.
`cfc` Unable to inventory job.
`d01` Wrong device type specified.
`d02` Failed to send `mode sense` command.
`d05` `Mode sense` command failed.
`d08` `Mode sense` command failed.
`d0b` Failed to send `mode sense` command.
`d0e` `Mode sense` command failed.
`d12` `Mode sense` command failed.
`d15` Not enough data returned from `mode sense` command.
`d18` Unexpected amount of data returned from `mode sense` command.
`d1b` Device is write protected.
`d1e` Failed to obtain expected mode pages.
`d22` Failed to send `mode select` command.
`d25` `Mode select` command failed.
`d28` `Mode select` command failed.
`d2b` Invalid tape sequence number.
`d2e` Multi-partition tape is not supported.
`d31` Wrong device type specified.
`d32` Failed to send `mode sense` command.
`d35` `Mode sense` command failed.
`d38` `Mode sense` command failed.
`d3b` Failed to send `mode sense` command.
`d3e` `Mode sense` command failed.
`d42` `Mode sense` command failed.
`d45` Not enough data returned from `mode sense` command.
`d48` Unexpected amount of data returned from `mode sense` command.
`d4b` Device is write protected.
`d4c` 120 meter tapes are not supported.
`d4e` Failed to obtain expected mode pages.
`d52` Failed to send `mode select` command.
`d55` `Mode select` command failed.
`d58` `Mode select` command failed.
`d5b` Invalid tape sequence number.
`d5e` Multi-partition tape is not supported.
`d61` Wrong device type specified.
`d62` Invalid density specified.
`d65` Failed to send `mode sense` command.
`d68` `Mode sense` command failed.
`d6b` `Mode sense` command failed.
`d6e` Failed to send `mode sense` command.
`d72` `Mode sense` command failed.

`d75` `Mode sense` command failed.
`d78` Not enough data returned from `mode sense` command.
`d7b` Unexpected amount of data returned from `mode sense` command.
`d7e` Device is write protected.
`d82` Requested density does not match set device density.
`d85` Failed to obtain expected mode pages.
`d88` Failed to send `mode select` command.
`d8e` `Mode select` command failed.
`d92` `Mode select` command failed.
`d95` Invalid tape sequence number.
`da1` Wrong device type specified.
`da2` Invalid density specified.
`da5` Failed to send `mode sense` command.
`da8` `Mode sense` command failed.
`dab` `Mode sense` command failed.
`dae` Failed to send `mode sense` command.
`db2` `Mode sense` command failed.
`db5` `Mode sense` command failed.
`db8` Not enough data returned from `mode sense` command.
`dbb` Unexpected amount of data returned from `mode sense` command.
`dbe` Device is write protected.
`dc2` Requested density does not match set device density.
`dc5` Failed to obtain expected mode pages.
`dc8` Failed to send `mode select` command.
`dce` `Mode select` command failed.
`dd2` `Mode select` command failed.
`dd5` Invalid tape sequence number.
`e01` Not SCSI DFC.
`e03` Invalid DFC state for pump.
`e05` `dtchintr()` call returned fail.
`e07` Unable to clear DDSBS.
`e09` Unable to send command to BIC.
`e0a` Unable to send command to BIC.
`e0b` `atchintr()` call returned fail.
`e0d` `enabintr()` call returned fail.
`e0f` `getjobid()` failed.
`e11` Failed to write word in BIC FIFO.
`e13` `wakeup()` PIO failed.
`e15` `version` command failed.
`e17` `getjobid()` failed.
`e19` Failed to write word in BIC FIFO.
`e1a` `wakeup()` PIO failed.
`e1b` `version` command failed.
`e1c` Unable to allocate message for FMGR.
`e1d` 1-byte wide firmware version not known.
`e1f` Unable to allocate message for FMGR.
`e20` Unable to do a `stat()` on the pumpfile.
`e22` Pumpfile invalid size.
`e24` Pumpfile is not a single extent contiguous file.
`e26` Unable to get segnum.

`e28` Unable to `iolock` the buffer.
`e2a` Unable to allocate the message buffer for reading pumpfile.
`e2c` Unable to send the I/O message.
`e2e` Unable to read pumpfile header.
`e2f` Pumpfile has invalid size.
`e30` 4-wide firmware needs to be reprogrammed, retry later.
`e32` Unable to get segnum.
`e33` Unable to get segnum for DKDRV's internal pump buffer.
`e35` Unable to download the pumpcode.
`e37` Unable to request reading pumpfile.
`e39` Unable to read pumpfile.
`e3a` DFC pump: `getjobid` failed.
`e3b` Failed to write word in BIC FIFO.
`e3d` Failed to write word in BIC FIFO.
`e3f` Failed to write word in BIC FIFO.
`e41` Failed to write word in BIC FIFO.
`e43` `wakeup` PIO failed.
`e45` Pump failed at last pump.
`e46` Cannot remove the segment.
`e47` `dtchintr()` call returned fail.
`e48` Unable to send command to BIC.
`e49` Invalid pump sequence.
`e4a` `dtchintr()` call returned fail.
`e4b` Cannot remove the segment.
`e4c` Unable to send command to BIC.
`e50` Invalid header magic number.
`e53` 1-byte wide firmware and pumpfile are incompatible - issue.
`e55` 1-byte wide firmware and pumpfile are incompatible - generic.
`e57` 4-byte wide firmware and pumpfile are incompatible with 1-byte wide firmware.
`e59` Pumpfile has different revision level.
`e5a` 1-byte wide firmware and pumpfile are incompatible.
`e5c` Unable to determine revision levels.
`e60` Unable to send command to BIC.
`e62` `jcistat` command failed.
`e64` Read status of BIC failed.
`e66` Failed to read BIC FIFO.
`e68` Failed to read BIC FIFO.
`e69` Received interrupt but no response.
`e6a` Failed to clear BIC interrupt.
`e6b` `dtchintr()` call returned fail.
`e6c` Unable to send command to BIC.
`e6d` `dtchintr` call returned fail.
`e6e` `atchintr` call returned fail.
`e6f` `enabintr` call returned fail.
`e70` DFC flash programming timed out.
`e71` Unable to clear DDSBS.
`e72` Unable to send command to BIC.
`e73` DFC `version` command failed.
`e74` Unable to send command to BIC.
`e78` `initmem5()` DMAC initialization failed.

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`e7a` `dtchintr` call returned fail.
`e7b` `atchintr` call returned fail.
`e7c` `enabintr` call returned fail.
`e7d` `getjobid` failed.
`e7f` Unable to send `version` command failed.
`e80` Unrecognizable DKDRV internal job type.
`e85` Response contains jobid not in use.
`e86` IO job has no associated IO message.
`e88` IO message "ms_to" field is invalid.
`e8a` Message type not IOREAD or IOWRITE.
`e8c` No job found in inventory data.
`e8d` Invalid completion code returned by DFC.
`e8f` Job reported error.
`e95` NULL message buffer pointer.
`e96` Invalid "ms_to" field in message.
`e97` Message buffer not marked allocated.

ID . . . . . APP-DFC-APPA-G
GENERIC . . . . . UNIX RTR R21.31 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

DKDRV Information Codes

NOTE: These information codes are in hexadecimal notation.

`010` No inventory room - restructure DKDRV.
`020` Report failure.
`030` Access to BIC failed.
`035` Desired BIC status not obtained.
`039` IO job has no associated IO message.
`040` IO message "`ms_to`" field is invalid.
`041` Message buffer not marked allocated.
`042` Cannot start the I/O Assist process. 3B21 emulator only.
`043` Cannot grow device data into disk driver memory. 3B21 emulator only.
`044` Cannot set the u_boot flag in a device's UCB. 3B21 emulator only.
`045` Message type not `IOREAD` or `IOWRITE`. 3B20D/3B21D only.
`045` A mate disk does not exist for the boot disk. 3B21 emulator only.
`046` Cannot turn off u_boot flag in the mate disk's UCB. 3B21 emulator only.
`047` Cannot turn off u_boot flag in the mate disk's UCB. 3B21 emulator only.
`048` Cannot turn off u_boot flag in a disk's UCB. 3B21 emulator only.
`049` DFC could not be restored. 3B21 emulator only.
`04a` No job found in inventory data.
`04b` MHD is active, but DFC is not active. 3B21 emulator only.
`04c` SBUS could not be restored. 3B21 emulator only.
`050` Invalid completion code returned by DFC.
`055` Job reported error.
`05a` Response contains job ID not in use.
`060` Response specified an unknown device.
`06f` Drive status error.
`070` Special queue full.
`073` `spqjobid()` failed.
`076` `queuejob()` failed for DFC change maintenance mode command.
`07a` `intpwait()` function failed for DFC change maintenance mode.
`07c` Special queue full for SBUS change mode job.
`07e` `spqjobid()` failed for SBUS change mode command.
`082` `queuejob()` for SBUS change maintenance mode failed.
`085` `intpwait()` function failed for SBUS change maintenance mode.
`098` DFC version command: special queue full.
`09a` DFC version command: `spqjobid` failed.
`09c` Version command fail.

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`09e` `dfc_vers`: `intpwait` function failed.
`0a0` `initmem1()` failed.
`0a2` Timeout request to get DIOP feature level failed.
`0a3` DKDRV timing chain index 0 already assigned.
`0a4` Failed to read `btparm` record.
`0a5` No mate for boot device found.
`0a8` DFC restore failed during boot.
`0ab` Fail to change the usable bit for SBUS.
`0af` MHD marked `S_ACT` but DFC not marked `S_ACT`.
`0b1` MHD marked `S_ACT` but SBUS not marked `S_ACT`.
`0b3` Simplex MHD restore failed config denied removal.
`0b5` Simplex MHD restore failed config OKed removal.
`0b6` Cannot turn off u_boot flag in a disk's UCB. 3B21 emulator only.
`0b7` Cannot turn off u_boot flag in a disk's UCB. 3B21 emulator only.
`0b8` MHD restore failed and no `S_ACT` mate.
`0b9` Cannot turn off u_boot flag in mate disk's UCB. 3B21 emulator only.
`0c0` `initkint()` (interrupt detach / attach) failed.
`0c3` Fail to request pump after boot.
`0c6` Invalid MHD to be restored during boot.
`0c9` Invalid mate MHD.
`0ca` RID to UCB conversion failed.
`0cb` RID update and release failed.
`0cf` Duplicate fields in the message do not match.
`0d5` Byte offset not on word boundary.
`0d6` Job failed. 3B21 emulator only.
`0d7` Maintenance job failure - see DKDRV error report.
`0d8` Invalid file type return code from io_ucbs(). 3B21 emulator only.
`0d9` PSM sent a bad power transition message.
`0db` temp message - old message returned.
`0dd` Unknown maintenance `ACK` received.
`0df` Unrecognizable message type.
`0e2` Unrecognizable device.
`0e5` Unknown `FMGR ACK` message received.
`0e6` Segment removed failed, pump buffer retained.
`0e8` Unknown `MMGR ACK` message received.
`0ec` Unknown `DKDRV ACK` message received. 3B20D / 3B21D only.
`0ec` Received an unknown acknowledgement from the file manager. 3B21 emulator only.
`0ef` Unknown `ACK` message received.
`0f0` Incorrect swap `LOG_REC RID` from ECDORG.
`0f1` Incorrect SWAP MDCT RID.
`0f2` Can't update the ROOT / SWAP device table.
`0f3` dlm indicator `alocmsg()` failed (to SIM).
`0f4` dlm indicator `alocmsg()` failed (to DKDIP).
`0f6` dlm indicator `alocmsg()` failed(to DKDIP).
`0f8` dlm indicator `alocmsg()` failed(to DKDIP).
`0fa` Could not get a CDLM timer entry.
`0fb` `dlmstrt ost` returned SWFAIL.
`0fd` microstore limpmode flag set.
`0fe` Bad return from `dlmstrt`.
`0ff` Unknown RID from DKDIP.

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`100` Invalid operation code in UTIL message.
`101` Power down of an active unit.
`102` DFC power down message received - unit still usable.
`103` Device powered down - abort client.
`104` Power down message received - unit still usable.
`105` dlm indicator `alocmsg()` failed.
`106` Special priority queue full.
`107` `spqjobid()` failed.
`108` Invalid device type for power up check.
`10a` `intpwait()` function failed.
`110` No VTOC on disk pack.
`113` VTOC too large for DKDRV to handle.
`116` Invalid partition number in VTOC entry.
`119` Invalid partition number in message.
`140` Virtual address does not map into segment number.
`145` `iolock()` failed.
`14a` `uniolock()` failed.
`160` RID to UCB LLA call failed.
`165` RID update and release failed.
`16a` RID unknown by DKDRV.
`170` RID to UCB LLA call failed.
`175` RID update and release failed.
`17a` RID to UCB LLA call failed.
`180` RID update and release failed.
`185` RID to UCB LLA call failed.
`18a` RID update and release failed.
`190` Invalid inhibit administration opcode.
`1a0` `dtchintr()` call returned fail.
`1a5` `atchintr()` call returned fail.
`1aa` `enabintr()` call returned fail.
`1b0` ECD attach failed.
`1b3` DLM INIT failed.
`1b5` CONFIG OPEN failed.
`1b8` atchdata call to ECD failed.
`1bc` No DFCs in ECD.
`1be` DFC growth failed.
`1c3` downucbs ECD call failed.
`1c6` SBUS growth failed.
`1c9` downucbs ECD call failed.
`1cc` Growth of SCSI device failed.
`1cd` No tape devices configured in ECD. 3B21 emulator only.
`1ce` downucbs ECD call failed.
`1d1` SMD MHD growth failed.
`1d3` Too many devices.
`1d6` RID to UCB conversion failed.
`1d8` Invalid device type.
`1d9` Unable to determine DFC type.
`1dc` RID update and release failed.
`1de` Device is unequipped.
`1df` Invalid DFC internal device ID.

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`1e1` Channel RID to UCB conversion failed.
`1e3` Invalid SBUS internal device ID.
`1e5` DFC RID to UCB conversion failed.
`1e6` Attempt to grow more than one tape device. 3B21 emulator only.
`1e7` Invalid device ID for SCSI device.
`1e8` DAT or SMT must have internal device ID 6. 3B21 emulator only.
`1e9` SBUS RID to UCB conversion failed.
`1ea` Failed to get tape device's SBUS controller UCB. 3B21 emulator only.
`1eb` Invalid SBUS internal device id.
`1ec` Invalid SBUS internal device id. 3B21 emulator only.
`1ed` DFC RID to UCB conversion failed.
`1ee` Device is not a SCSI device. 3B21 emulator only.
`1ef` Invalid device ID for SMD MHD.
`1f0` Tape device is not configured on SCSI DFC. 3B21 emulator only.
`1f1` The tape device controller is not an SBUS. 3B21 emulator only.
`1f2` DFC RID to UCB conversion failed.
`1f3` Failed to retrieve the tape's DFC UCB. 3B21 emulator only.
`1f4` Incorrect device type for the device's control unit.
`1f5` Tape device DFC must have internal ID 0. 3B21 emulator only.
`1f6` Change state to ACT failed for tape device. 3B21 emulator only.
`1fc` Memory initialization failed.
`1fe` DKDRV port attach failed.
`1ff` `atchchan()` function failed. 3B21 emulator only.
`203` `getpta()` function failed.
`206` RID to UCB conversion failed.
`209` `idmadev()` (write to DMAC RAM) failed.
`20c` `atchintr` call failed.
`20d` Cannot set up timeout request. 3B21 emulator only.
`20f` RID not known by DKDRV.
`213` DFC being de-grown is in use.
`216` Update of DKDRV local DFC UCB failed.
`219` DFC being de-grown not in UNEQIP state.
`21c` SBUS being de-grown is in use.
`21f` Update of DKDRV local SBUS UCB failed.
`223` SBUS being de-grown not in UNEQIP state.
`226` Unit being de-grown is in use.
`229` Update of DKDRV local device UCB failed.
`22c` Unit being de-grown not in UNEQIP state.
`22f` RID to UCB conversion failed.
`233` RID update and release failed.
`236` Drive type in ECD does not agree with backplane - restore aborted.
`239` RID to UCB conversion failed.
`23a` RID update and release failed.
`23b` RID to UCB conversion failed.
`23c` Get option block for DFC failed.
`23d` Invalid `eirflag` field in DFC option block.
`23e` Get option block for MHD failed.
`240` Delay (failed to find interrupt set in BIC).
`242` RID to UCB conversion failed.
`24e` Cannot send read VTOC job during boot. 3B21 emulator only.

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250 Job complete code == fail. 3B20D/3B21D only.
250 Error occurred while trying to read a VTOC. 3B21 emulator only.
252 Job request not allowed.
254 Job request not allowed.
258 Tape device already opened.
25a Driver I/O error.
25c No S_ACT device - open.
260 Incorrect MDCT from IO message.
261 MDCT pointer missing from a message received. 3B21 emulator only.
263 Growth of device failed.
265 No RIDs in ECD MDCT.
268 Warning - enlarge DKDRV's internal MDCT.
26c Disk specific write not allowed.
270 No S_ACT device - read.
275 Invalid partition number in read message.
278 Access to DIAG partition is not allowed - read.
279 Disk driver in overload - no free job table entries. 3B21 emulator only.
27a Unable to inventory job.
27d bhqjobid() failed. 3B20D/3B21D only.
27d Unable to queue a job, I/O Assist error. 3B21 emulator only.
280 io_blk exceeds partition size - read.
282 Attempting to read a device other than a disk or a tape. 3B21 emulator only.
290 No S_ACT device - write.
295 Invalid partition number in write message.
29a Tried to write into protected partition.
2b1 No job IDs left.
2ba Unable to inventory all jobs.
2be Access to DIAG partition is not allowed - write.
2c0 io_blk exceeds partition size - write.
2c2 Attempting to write to a device other than a disk or a tape. 3B21 emulator only.
305 Unrecognizable DKDRV internal job type.
307 Unexpected denial of request to remove MHD.
308 Duplex operation compromised due to removing MHD.
320 Boot indicator message allocation failed.
325 INIT entry failed.
32a Unexpected event.
32b No timeouts are set. 3B21 emulator only.
32c Cannot set up timeout request. 3B21 emulator only.
32d Received FLT_CMD fault. 3B21 emulator only.
32e atchchan() function failed. 3B21 emulator only.
32f atchintr() function failed. 3B21 emulator only.
330 Cannot set up timeout request. 3B21 emulator only.
340 FLT_SINIT fault code.
343 Failed to restart driver.
345 Phase occurred during critical disk operations. 3B21 emulator only.
346 Old non-queued audit error message.
349 Unexpected fault code.
34c Critical hit - S_RSP.
34f Critical hit - S_MSG.
351 Cannot get a job response. 3B21 emulator only.

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353 Driver state error.
355 Calling `dfcinit()` for lack of "warm" restart.
356 `ss32b()` failed.
358 Job response contained a failure response code. 3B21 emulator only.
359 PIC never reset CMD IN PROG flag.
35a Putting read message on reprocess queue. 3B21 emulator only.
35c Read job failed - CONFIG denied request to remove device. 3B21 emulator only.
35e Write job failed - CONFIG denied request to remove device. 3B21 emulator only.
35f `progio` (D2SBS clear) failed.
363 `progio` (BIC initialization and PIC reset) failed.
366 `initmem5` (DMAC RAM initialization) failed.
369 `enabintr` function failed.
36c `progio` (send ABORT command to PIC) failed.
36f `progio` (set BIC IFEN flag) failed.
370 Excessive errors, device being reset. 3B21 emulator only.
373 Unknown RID faulted.
376 PIO lost for a unit.
379 Unknown RID faulted.
37c Unexpected fault code.
37d Job response does not match a job table entry. 3B21 emulator only.
37f Message buffer audit error - abort maintenance on this unit.
380 Message buffer audit error. 3B21 emulator only.
383 `timereq()` failed - `dfcinit()`.
391 invalid `pdfptr`.
392 invalid `pdfptr`.
395 RID to UCB LLA call failed.
397 Message alloc failed (to FMGR).
398 Could not get a timer entry for FMGR.
39b Major DFC reinitialization due to either operational problems or manual request.
39c Tape operations aborted.
39e Warning - queue full detected.
3a6 Invalid `dfcinit()` sequence.
3a9 Can't identify panic dump device.
3ac Incorrect PANIC DUMP RID.
3af `ss32b()` failed.
3b3 PIC never reset CMD IN PROG flag.
3b6 `progio` (D2SBS clear) failed.
3b9 `progio` (BIC initialization and PIC reset) failed.
3ba Failed to clear BIC INTP.
3bc `kint()` - stray interrupts detected.
3bd Too many job timeouts occurred. 3B21 emulator only.
3be `kint()` entered before `kfault()` after panic dump.
3bf Unable to requeue job - I/O Assist error. 3B21 emulator only.
3c0 Unable to requeue job - I/O Assist error. 3B21 emulator only.
3c1 Unable to resend job - I/O Assist error. 3B21 emulator only.
3c2 Handling an unfinished job found in the disk driver's job table. 3B21 emulator only.
3c3 A job exists in the job table that is too old. 3B21 emulator only.
3d0 RID not known by DKDRV.
3d3 DKDRV has aborted client.
3d5 Invalid maintenance state.

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3d8 Device file not open.
3dc Another process has device file open.
3dd Tape device is already open.
3de Request prohibited on S_ACT DFC. 3B20D / 3B21D only.
3de Unsupported maintenance request. 3B21 emulator only.
3df Attempting to remove a device that cannot be removed. 3B21 emulator only.
3e0 Attempting to restore a device that cannot be restored. 3B21 emulator only.
3e1 maint() attach interrupt failed.
3e3 maint() enable interrupt failed.
3e5 UCB is not a DFC.
3e8 DMAC RAM initialization failed.
3ec Detach / attach / enable interrupt failed.
3ef Detach interrupt failed.
401 Device type is not SCSI.
402 FORMAT - unit is not a disk.
403 Device type is not SCSI for explicit SCSI command.
404 DFC must be active.
405 DFC is not ACTIVE for SCSI command.
406 SBUS must be active.
407 SBUS is not ACTIVE for SCSI command.
409 CONFIG denied request to remove unit.
40a Base queue full.
40b Time limit exceeds capability.
40c May only restore S_OOS units.
40d Failed to get job id.
40e Restore request no good - DFC not S_ACT.
40f queuejob failed.
412 Restore request no good - SBUS not S_ACT.
415 Compare / correct - unit not a disk.
418 Compare / correct - DFC not S_ACT.
41b Compare / correct - SBUS not ACTIVE.
41d May not compare / correct a S_INIT unit.
41f Only one compare / correct is allowed to run at one time.
422 May only restore S_OOS units.
425 SBUS restore - DFC is not ACTIVE.
426 MHD or MT restore - SBUS is not ACTIVE.
427 MHD restore - DFC is not ACTIVE.
428 DIAG SYSGEN PIO failed.
429 Restore not allowed - device not supported.
42a UCB is not a DFC UCB.
42c Not allowed to DGN an S_ACT unit.
42e Special queue full.
432 Invalid device to be diagnosed.
435 spqjobid() failed.
438 queuejob() failed.
43c getdmaa() function failed.
43e Received WSETUP0 before SPECDMA.
442 WSETUP1 received before WSETUP0.
445 uniolock() failed.
448 getdmaa function failed.

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44c Invalid disk lock process.
44f Base queue full.
452 `bhqjobid()` failed.
455 queuejob failed.
458 Version job failed.
460 `FORMAT` requires non-`S_ACT` MHD.
462 `FORMAT/VERIFY` - unit is not a disk.
465 `FORMAT/VERIFY` requires `S_ACT` DFC.
468 `INIT/VFY` MHD - SBUS not `S_ACT`.
46a `VERIFY` in progress - retry later.
470 Start track / block greater than last track / block.
473 Base queue full.
476 `bhqjobid()` failed.
479 MHD usability changed because of INIT operation.
47c `queuejob()` failed.
480 Invalid when MHD is `S_ACT`.
483 DFC must be `S_ACT`.
486 Invalid when MHD is `S_ACT`.
489 DFC must be `S_ACT`.
48b `REMAP devserv()` failed.
48d Device major status update failed.
48f Failed to initialize device status.
492 Base queue full.
494 Unable to queue LM job.
496 Invalid DFC type for DFC reset request.
498 DFC is not ACTIVE to be reset.
49a Firmware is running - cannot reset DFC.
49f DFC type does not support pump.
4a3 DFC is not ACTIVE for pumpcode downloading.
4a6 Other pump in progress - retry later.
4a9 Unable to queue pump job.
4aa Device must be non-ACT to initialize error message inhibit flag.
4ab CLRMAEC - unit is not a disk.
4ac Invalid opercode in maintenance message.
4ae Unexpected maintenance interrupt.
4b3 `dtchintr()` call failed.
4b6 Maintenance work timed out.
4b9 No base or high job IDs left.
4bc Failed to get page table address.
4be No job IDs left for base or high queue.
4c2 Offset of the SCSI command is not on word boundary.
4c5 Explicit SCSI command, response and data are not on the same segment.
4c8 Base queue full for SCSI command.
4ca Request exceeds DFC capability.
4cb Invalid second device for SCSI command.
4cc Request exceeds expscsi capability.
4cd Unable to queue the SCSI command.
4d0 `readvtoc()` function failed.
4d1 Another pump in progress, retry later.
4d2 Flash reprogram not started.

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`4d3` Unable to program flash memory on S_ACT unit.
`4d5` `readvtoc()` job failed.
`4d6` Unable to clear DDSBS.
`4d8` Unable to send command to BIC.
`4d9` `getpta()` function failed.
`4da` VTOC sort function failed.
`4db` `initmem5()` DMAC init failed.
`4dc` Unable to send command to BIC.
`4dd` `dtchintr` call returned fail.
`4de` `atchintr` call returned fail.
`4df` DFC pump: `getjobid()` failed.
`4e0` Invalid `newvtocseq()` sequence.
`4e1` Failed to write word in BIC FIFO.
`4e2` `enabintr()` call returned fail.
`4e3` Failed to write word in BIC FIFO.
`4e5` Partition number out of range for DKDRV.
`4e6` Failed to write word in BIC FIFO.
`4e7` Failed to write word in BIC FIFO.
`4e8` Partition number out of range for VTOC.
`4e9` `wakeup()` PIO failed.
`4eb` Unable to get firmware versions.
`4f1` Flash reprogram not started.
`4f2` Unable to clear DDSBS.
`4f3` Unable to send command to BIC.
`4f5` DFC pump: `getjobid()` failed.
`4f7` Failed to write word in BIC FIFO.
`4f9` Failed to write word in BIC FIFO.
`4fa` Failed to write word in BIC FIFO.
`4fb` Failed to write word in BIC FIFO.
`4fc` `wakeup()` PIO failed.
`500` Base queue full for maintenance read.
`503` Tried to use invalid VTOC for maintenance read.
`505` Invalid partition number in message.
`508` Invalid block in partition.
`50c` `bhqjobid()` failed for maintenance read.
`50e` Unable to inventory job for maintenance read.
`520` Base queue full for maintenance write.
`523` Tried to use invalid VTOC for maintenance write.
`526` Invalid partition number in message.
`529` Tried to write into protected partition.
`52c` Invalid block in partition.
`537` MHD usability changed because of `pdfwrite` job.
`539` `bhqjobid()` failed for maintenance write.
`53b` Unable to inventory job for maintenance write.
`550` Physical device file not opened.
`553` Incorrect READ/WRITE access permissions.
`556` `iolock` failed.
`55b` `getjobid` failed.
`55f` Maintenance I/O request to a non-disk device.
`56a` DISK read or write requires active DFC.

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56f DISK read or write requires active SBUS.
573 This physical device file already open.
575 Device major status update failed.
57a Update of device file variables failed.
580 May not maintenance write ACT device.
583 SDF prematurely closed during a restore.
585 `uniolock` failed.
5a0 Command to BIC failed.
5a5 Command to PIC failed.
5aa Clear of DDSBS failed.
5b0 Read status of DDSBS failed.
5b5 Read of BIC FIFO failed.
5ba Write of BIC FIFO failed.
5bc Read status of BIC failed.
5bf BIC command to read HA shadow register failed.
5c3 Read status of SCSI HA shadow register failed.
5c5 `progio cmdtype` not defined.
5e0 `queuejob()` failed.
5e1 Base queue full.
5e2 `getjobid()` failed.
5ec `intpwait()` function failed.
5f0 `Readdisk queuejob` failed.
5f1 `Readdisk` base queue full.
5f2 `Readdisk getjobid` failed.
5fc `Readdisk intpwait` function failed.
600 Excessive errors - device being reset.
601 Excessive errors - device being reset.
603 SBUS work terminated - DFC going S_OOS.
609 DFC sub-device work terminated - DFC going S_OOS.
60a Tape work terminated - DFC going S_OOS.
60c SBUS sub-device work terminated - SBUS going S_OOS.
60d Tape work terminated - SBUS going S_OOS.
60e CONFIG `chgstate()` call failed.
613 `dtchintr()` failed.
615 `devserv(OFFLINE)` function failed.
618 `devserv(OFFLINE)` job failed.
61c `sbuserv(OFFLINE)` function failed.
61f `sbuserv(OFFLINE)` job failed.
650 RID to UCB LLA call failed.
653 RID to UCB LLA call failed.
655 RID to UCB LLA call failed.
658 RID to UCB LLA call failed.
65c RID to UCB LLA call failed.
65e RID to UCB LLA call failed.
661 RID to UCB LLA call failed.
663 RID to UCB LLA call failed.
666 RID to UCB LLA call failed.
667 RID to UCB LLA call failed.
669 RID to UCB LLA call failed.
673 RID to UCB LLA call failed.

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678 RID to UCB LLA call failed.
67a EIR contains job ID not in use.
67b RID to UCB LLA call failed.
67c RID to UCB LLA call failed.
67d RID to UCB LLA call failed.
67e RID to UCB LLA call failed.
682 RID to UCB LLA call failed.
6a9 Retry PIO failed.
6aa Failed to requeue job.
6b0 Remake: job ID not in use.
6b5 Remake: bad message type.
6be Restore - invalid device type.
6c0 Unable to change usable bit for DFC.
6c3 `CONFIG chgstate` call failed.
6c5 DKDRV DFC memory init failed.
6c8 `initmem5()` (DMAC init) failed.
6ca `initmem6()` (atchintr) failed.
6ce `progio` (D2SBS clear) failed.
6d1 `progio` (BIC initialization and PIC reset) failed.
6d3 `enabintr()` failed.
6d5 `SYSGEN` function failed.
6d8 `sysgen` job failed.
6d9 `dfc_vers` request function failed.
6da `dfc_vers` job failed.
6db `dfc_vers` request function failed.
6dd `dfc_vers` job failed.
6df `dfcserv(ONLINE)` function failed.
6e2 `dfcserv(ONLINE)` job failed.
6e5 CONFIG chgstate call failed.
6e6 Cannot turn off u_boot flag in a DFC's UCB. 3B21 emulator only.
6e8 Unable to change usable bit for DFC.
6eb Cannot request a timer for pump after DFC restore.
6ef Invalid DFC restore sequence number.
6f2 Unit is in FULL DLM - abort restore.
6f5 Mate unit is in FULL DLM - abort restore.
6f8 Unable to change usable bit for MHD.
6fb CONFIG chgstate call failed.
6fe DKDRV MHD memory initialization failed.
6ff `dlm_chks()` denied restore request.
701 `readdisk()` function failed.
703 Disk job (`readdisk`) failed.
706 `devserv(ONLINE,RSTJOB)` function failed.
709 DFC failed to put MHD on-line.
70c `readvtoc()` function failed.
70e Disk job (`readvtoc`) failed.
711 VTOC integrity check failed.
713 CONFIG chgstate call failed.
714 Cannot turn off u_boot flag in a disk's UCB. 3B21 emulator only.
715 Unable to change usable bit for MHD.
718 Invalid MHD restore sequence number.

71c CONFIG chgstate call failed.
71d Cannot turn off u_boot flag in an SBUS's UCB. 3B21 emulator only.
71e `sbuserv(ONLINE)` function failed.
722 `sbuserv(ONLINE)` job failed.
725 CONFIG chgstate call failed.
728 Unable to change usable bit for SBUS.
72c Invalid SBUS restore sequence number.
730 Maintenance state audit requested.
732 Invalid MHD "`compcor`" sequence number.
741 Unit is in FULL DLM - abort restore.
742 Failed to change usable bit for tape.
745 CONFIG `chgstate` call failed.
748 DKDRV tape memory initialization failed.
74b `devserv(ONLINE)` function failed.
74e Failed to put tape device ONLINE.
752 CONFIG `chgstate` call failed.
755 Failed to change usable bit for tape.
758 Invalid tape restore sequence number.
75b DIOP restore not allowed - mate MHD is active.
75e DIOP restore not allowed - MHD is marked essential.
760 `progio` (set BIC IFEN flag) failed.
761 Wakeup PIO failed.
762 Resume PIO failed.
765 `progio` (send SYSGEN command to PIC) failed.
76a `intpwait` function failed.
770 Job timed out.
775 DFC timed out.
776 Invalid pump state.
778 Cannot request timer for DFC pump.
77a DFC entering overload.
77c DFC leaving overload.
77f DFC usability audit failed.
790 Timing table full.
795 Timeout request is out of range.
7c0 No base or high job IDs left.
7c3 No job IDs left for base or high queue.
7c5 No job IDs left for special queue.
7c7 Failed to get page table address.
7c9 No job IDs left for PIO jobs.
800 `/prc/s_update` terminated abnormally.
801 `/prc/s_dskutil` terminated abnormally.
825 Could not `alloc` msg buf.
830 Could not `pcreat` process.
835 Could not `alloc` msg buf.
900 DKDIP pid is null.
903 `alocmsg` failed.
906 Failed to remove the segment.
909 Cannot pump - other pump in progress.
90c Invalid DFC state for pump.
90e Cannot perform pump at this time.

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911 DFC is not S_ACT for pump.
913 Invalid global pump state.
916 DFC is scheduled for major reinitialization - can't pump.
919 Pump not started - DFC is reserved.
91b Firmware version not known.
91c Failed to allocate message for FMGR.
91d Cannot alloc message for FMGR.
91e File stat error.
91f Pump-file is zero byte in size.
921 Pump-file is not a contiguous single extent file.
923 Can't get segnum.
926 Fail to queue the pump request.
929 Can't get segnum.
92c Fail to determine pump type.
92d Can't get segnum for DKDRV's internal pump buffer.
92e Failed to download the pumpcode.
931 Request to read pump-file failed.
933 Failed to read pump-file.
936 Failed to send the pump request.
939 Pump failed at last pump.
93c Failed to queue a version command in pump procedure.
93e Pumpcode version command failed.
93f Failed to start new pump.
943 Invalid pump sequence.
946 Invalid MDCT RID for pump file.
949 Invalid segment size requested.
94c Failed to get a segment index for new segment.
94e Failed to get a segment number for new segment.
951 Failed to allocate a message buffer.
953 Failed to allocate a message buffer.
956 Can't iolock the buffer.
959 Can't allocate the message buffer for reading pumpfile.
95c Can't send the I/O message.
95f DFC pump: high priority queue full.
963 DFC pump: base priority queue full.
966 DFC pump: getjobid failed.
969 DFC pump: queuejob failed.
96c Can't remove the segment used for pump buffer.
96f Invalid time out for pump procedure.
971 Pump timeout - abort pump.
980 Incorrect root LOG_REC RID from ECDORG.
981 Incorrect root MDCT RID.
990 The UCB RID for the "alternate" device is invalid.
992 Update of DKDRV local device UCB failed.
994 Invalid MDCT RID.
996 Failed to get MDCT record.
998 Update of DKDRV local device UCB failed.
a01 s_update started.
a0a Bad MAINT message opercode.
a15 Can't open ECD.

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a1a Cannot get specified unit UCB.
a20 Specified unit UCB not reserved.
a25 Failed to get "to" unit SDF.
a2a Open of "to" SDF failed.
a30 `ugucbm()` failed.
a35 No active mate found.
a3a Failed to reserve active mate UCB.
a40 Failed to get "from" unit SDF.
a45 Open of "from" SDF failed.
a48 Can't read VTOC on active disk.
a4a Invalid VTOC on active disk.
a55 Asynchronous write failure.
a5a Asynchronous write failure.
a60 VTOC read (source disk) failed.
a65 VTOC write (destination disk) failed.
a6a Too many partitions.
a70 Block number not within VTOC.
a75 Primary BBOOT partition is INVALID.
a7a Backup BBOOT partition is INVALID.
a80 Tried to access unopened file.
a85 `segoff()` failure.
a8a `movetrap()` failure.
a90 Disk read error.
a95 Disk read error - correctly reread.
a9a Invalid file descriptor.
aa0 `IOQUEUEM` failure.
aa5 Maintenance job to DKDRV failed.
aaa Received application abort restore request.
ab5 Invalid argument.
aba `segname` already exists.
ac0 Segment exists.
ac5 No segments available.
aca Not enough space.
ad0 Bad `segndx`.
ad3 Can't find a free `segindex`.
ad5 `segoff` failure.
ada Driver startup message not received.
ae0 Terminated externally.
ae5 Invalid `U_ABRTRST` message.
aea Invalid maintenance message.
af0 Unknown `ACK` message.
af5 Process was faulted.
b01 `s_dskutil` started.
b06 Cannot connect to port `PT_DSKUTL`.
b09 Bad MAINT message opercode.
b10 Can't open ECD.
b13 "DEST" unit not specified.
b16 `ugucbm()` failed for "DEST" unit.
b19 Cannot get "DEST" unit UCB.
b1c "DEST" unit UCB not reserved.

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`b20` Failed to get "TO" unit SDF.
`b23` Open of "TO" SDF failed.
`b26` Dup of "TO" SDF failed.
`b29` `ugetucb()` failed for "FROM" unit.
`b36` Failed to reserve "FROM" unit UCB.
`b39` Failed to get "FROM" unit SDF.
`b3c` Open of "FROM" SDF failed.
`b40` Remove mate of "DEST" unit and reenter command.
`b46` Dup of "FROM" SDF failed.
`b48` Failed to read VTOC on "TO" disk.
`b49` Invalid VTOC on "TO" disk.
`b4b` Failed to read VTOC on "FROM" disk.
`b4c` Invalid VTOC on "FROM" disk.
`b50` Both VTOCs do not match.
`b5c` Read failure (DEST disk).
`b60` Read failure (SRC disk).
`b63` Too many partitions.
`b66` VTOCs do not match in size.
`b69` Sync write failure (DEST disk).
`b6c` Block number not within VTOC.
`b70` Block number not within VTOC.
`b73` Block number not within VTOC.
`b80` Tried to access unopened file.
`b85` `segoff` failure.
`b8a` `movetrap` failure.
`b90` Disk read error.
`b95` Disk read error - correctly reread.
`b9a` Invalid file descriptor.
`ba0` `IOQUEUEM` failure.
`ba5` Maintenance job to DKDRV failed.
`baa` Received application abort restore request.
`bb5` Invalid argument.
`bba` `segname()` already exists.
`bc0` segment exists.
`bc5` No segments available.
`bca` Not enough space.
`bd0` Bad segndx.
`bd3` Can't find a free `segindex`.
`bd5` `segoff` failure.
`bda` Driver startup message not received.
`be0` Terminated externally.
`be5` Invalid `U_ABRTRST` message.
`bea` Invalid maintenance message.
`bf0` Unknown `ACK` message.
`bf5` Process was faulted.
`c02` Tape device already open.
`c0b` Device not active.
`c12` Open for both read and write.
`c15` Incorrect read / write access permissions.
`c18` Failed to send `test unit ready` command.

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`c1b` `Test unit ready` command failed.
`c1e` `Test unit ready` command failed.
`c22` Failed to send `test unit ready` command.
`c25` `Test unit ready` command failed.
`c28` `Test unit ready` command failed.
`c2b` Failed to send `test unit ready` command.
`c2e` `Test unit ready` command failed.
`c32` `Test unit ready` command failed.
`c35` Failed to send `inquiry` command.
`c38` `Inquiry` command failed.
`c3b` `Inquiry` command failed.
`c3e` Insufficient `inquiry` data.
`c42` Failed to send `inquiry` command.
`c45` `Inquiry` command failed.
`c48` `Inquiry` command failed.
`c4b` Unknown device.
`c4e` Failed to send `read block limits` command.
`c52` `Read block limits` command failed.
`c55` `Read block limits` command failed.
`c58` Partition information is invalid.
`c5b` Not a supported tape device.
`c5e` Invalid tape I/O open sequence number.
`c62` Reserved field in partition used.
`c65` Device does not support variable record sizes.
`c68` Device does not support fixed records.
`c69` Fixed record size is invalid.
`c6a` Invalid record type specified.
`c6b` Record size greater than device capability.
`c6e` Record size less than device capability.
`c72` Failed to send tape setup command to DFC.
`c75` Tape setup command failed.
`c78` Invalid sequence number.
`c82` Base queue full.
`c85` Failed to get job ID.
`c88` Request exceeds DFC capability.
`c89` Request exceeds expscsi capability.
`c8b` No base/high job IDs left.
`c8e` No job IDs left for base/high queue.
`c92` Base queue full.
`c95` Failed to get job ID.
`c9b` Base queue full.
`c9e` Failed to get job ID.
`ca2` Entity type to space over is invalid.
`ca5` Base queue full.
`ca8` Failed to get job ID.
`cab` Base queue full.
`cae` Failed to get job ID.
`cb1` Device not active.
`cb2` Invalid state for closing device.
`cb7` Invalid state for closing device.

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`cb8` Failed to send tape `rewind` command to DFC.
`cbb` Tape `rewind` failed.
`cbe` Invalid sequence number.
`cc2` Failed to send tape `space` command to DFC.
`cc5` Tape `space` command failed.
`cc8` Invalid sequence number.
`ccb` Failed to send `write filemarks` command to DFC.
`cce` `Write filemarks` command failed.
`cd2` Failed to send tape `space` command to DFC.
`cd5` Tape `space` command failed.
`cd8` Invalid sequence number.
`ce2` Device not active.
`ce4` Device not open.
`ce6` Incorrect read / write permissions.
`ce8` Base queue full.
`cea` Failed to get job ID.
`cec` Unable to inventory job.
`cf2` Device not active.
`cf4` Device not open.
`cf6` Incorrect read / write permissions.
`cf8` Base queue full.
`cfa` Failed to get job ID.
`cfc` Unable to inventory job.
`d01` Wrong device type specified.
`d02` Failed to send `mode sense` command.
`d05` `Mode sense` command failed.
`d08` `Mode sense` command failed.
`d0b` Failed to send `mode sense` command.
`d0e` `Mode sense` command failed.
`d12` `Mode sense` command failed.
`d15` Not enough data returned from `mode sense` command.
`d18` Unexpected amount of data returned from `mode sense` command.
`d1b` Device is write protected.
`d1e` Failed to obtain expected mode pages.
`d22` Failed to send `mode select` command.
`d25` `Mode select` command failed.
`d28` `Mode select` command failed.
`d2b` Invalid tape sequence number.
`d2e` Multi-partition tape is not supported.
`d31` Wrong device type specified.
`d32` Failed to send `mode sense` command.
`d35` `Mode sense` command failed.
`d38` `Mode sense` command failed.
`d3b` Failed to send `mode sense` command.
`d3e` `Mode sense` command failed.
`d42` `Mode sense` command failed.
`d45` Not enough data returned from `mode sense` command.
`d48` Unexpected amount of data returned from `mode sense` command.
`d4b` Device is write protected.
`d4c` 120 meter tapes are not supported.

d4e Failed to obtain expected mode pages.
d52 Failed to send `mode select` command.
d55 `Mode select` command failed.
d58 `Mode select` command failed.
d5b Invalid tape sequence number.
d5e Multi-partition tape is not supported.
d61 Wrong device type specified.
d62 Invalid density specified.
d65 Failed to send `mode sense` command.
d68 `Mode sense` command failed.
d6b `Mode sense` command failed.
d6e Failed to send `mode sense` command.
d72 `Mode sense` command failed.
d75 `Mode sense` command failed.
d78 Not enough data returned from `mode sense` command.
d7b Unexpected amount of data returned from `mode sense` command.
d7e Device is write protected.
d82 Requested density does not match set device density.
d85 Failed to obtain expected mode pages.
d88 Failed to send `mode select` command.
d8e `Mode select` command failed.
d92 `Mode select` command failed.
d95 Invalid tape sequence number.
da1 Wrong device type specified.
da2 Invalid density specified.
da5 Failed to send `mode sense` command.
da8 `Mode sense` command failed.
dab `Mode sense` command failed.
dae Failed to send `mode sense` command.
db2 `Mode sense` command failed.
db5 `Mode sense` command failed.
db8 Not enough data returned from `mode sense` command.
dbb Unexpected amount of data returned from `mode sense` command.
dbe Device is write protected.
dc2 Requested density does not match set device density.
dc5 Failed to obtain expected mode pages.
dc8 Failed to send `mode select` command.
dce `Mode select` command failed.
dd2 `Mode select` command failed.
dd5 Invalid tape sequence number.
e01 Not SCSI DFC.
e03 Invalid DFC state for pump.
e05 `dtchintr()` call returned fail.
e07 Unable to clear DDSBS.
e09 Unable to send command to BIC.
e0a Unable to send command to BIC.
e0b `atchintr()` call returned fail.
e0d `enabintr()` call returned fail.
e0f `getjobid()` failed.
e11 Failed to write word in BIC FIFO.

e13 `wakeup()` PIO failed.
e15 `version` command failed.
e17 `getjobid()` failed.
e19 Failed to write word in BIC FIFO.
e1a `wakeup()` PIO failed.
e1b `version` command failed.
e1c Unable to allocate message for FMGR.
e1d 1-byte wide firmware version not known.
e1f Unable to allocate message for FMGR.
e20 Unable to do a `stat()` on the pumpfile.
e22 Pumpfile invalid size.
e24 Pumpfile is not a single extent contiguous file.
e26 Unable to get segnum.
e28 Unable to `iolock` the buffer.
e2a Unable to allocate the message buffer for reading pumpfile.
e2c Unable to send the I/O message.
e2e Unable to read pumpfile header.
e2f Pumpfile has invalid size.
e30 4-wide firmware needs to be reprogrammed, retry later.
e32 Unable to get segnum.
e33 Unable to get segnum for DKDRV's internal pump buffer.
e35 Unable to download the pumpcode.
e37 Unable to request reading pumpfile.
e39 Unable to read pumpfile.
e3a DFC pump: `getjobid` failed.
e3b Failed to write word in BIC FIFO.
e3d Failed to write word in BIC FIFO.
e3f Failed to write word in BIC FIFO.
e41 Failed to write word in BIC FIFO.
e43 `wakeup` PIO failed.
e45 Pump failed at last pump.
e46 Cannot remove the segment.
e47 `dtchintr()` call returned fail.
e48 Unable to send command to BIC.
e49 Invalid pump sequence.
e4a `dtchintr()` call returned fail.
e4b Cannot remove the segment.
e4c Unable to send command to BIC.
e50 Invalid header magic number.
e53 1-byte wide firmware and pumpfile are incompatible - issue.
e55 1-byte wide firmware and pumpfile are incompatible - generic.
e57 4-byte wide firmware and pumpfile are incompatible with 1-byte wide firmware.
e59 Pumpfile has different revision level.
e5a 1-byte wide firmware and pumpfile are incompatible.
e5c Unable to determine revision levels.
e60 Unable to send command to BIC.
e62 `jcistat` command failed.
e64 Read status of BIC failed.
e66 Failed to read BIC FIFO.
e68 Failed to read BIC FIFO.

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`e69` Received interrupt but no response.
`e6a` Failed to clear BIC interrupt.
`e6b` `dtchintr()` call returned fail.
`e6c` Unable to send command to BIC.
`e6d` `dtchintr` call returned fail.
`e6e` `atchintr` call returned fail.
`e6f` `enabintr` call returned fail.
`e70` DFC flash programming timed out.
`e71` Unable to clear DDSBS.
`e72` Unable to send command to BIC.
`e73` DFC `version` command failed.
`e74` Unable to send command to BIC.
`e78` `initmem5()` DMAC initialization failed.
`e7a` `dtchintr` call returned fail.
`e7b` `atchintr` call returned fail.
`e7c` `enabintr` call returned fail.
`e7d` `getjobid` failed.
`e7f` Unable to send `version` command failed.
`e80` Unrecognizable DKDRV internal job type.
`e85` Response contains jobid not in use.
`e86` IO job has no associated IO message.
`e88` IO message "ms_to" field is invalid.
`e8a` Message type not IOREAD or IOWRITE.
`e8c` No job found in inventory data.
`e8d` Invalid completion code returned by DFC.
`e8f` Job reported error.
`e95` NULL message buffer pointer.
`e96` Invalid "ms_to" field in message.
`e97` Message buffer not marked allocated.

ID . . . . . APP-DFC-APPA-H
GENERIC . . . . . UNIX RTR R21.27 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

DKDRV Information Codes

NOTE: These information codes are in hexadecimal notation.

`010` No inventory room - restructure DKDRV.
`020` Report failure.
`030` Access to BIC failed.
`035` Desired BIC status not obtained.
`039` IO job has no associated IO message.
`040` IO message "`ms_to`" field is invalid.
`045` Message type not `IOREAD` or `IOWRITE`.
`04a` No job found in inventory data.
`050` Invalid completion code returned by DFC.
`055` Job reported error.
`05a` Response contains job ID not in use.
`060` Response specified an unknown device.
`06f` Drive status error.
`070` Special queue full.
`073` `spqjobid()` failed.
`076` `queuejob()` failed for DFC change maintenance mode command.
`07a` `intpwait()` function failed for DFC change maintenance mode.
`07c` Special queue full for SBUS change mode job.
`07e` `spqjobid()` failed for SBUS change mode command.
`082` `queuejob()` for SBUS change maintenance mode failed.
`085` `intpwait()` function failed for SBUS change maintenance mode.
`098` DFC version command: special queue full.
`09a` DFC version command: `spqjobid` failed.
`09c` Version command fail.
`09e` `dfc_vers`: `intpwait` function failed.
`0a0` `initmem1()` failed.
`0a2` Timeout request to get DIOP feature level failed.
`0a3` DKDRV timing chain index 0 already assigned.
`0a4` Failed to read `btparm` record.
`0a5` No mate for boot device found.
`0a8` DFC restore failed during boot.
`0ab` Fail to change the usable bit for SBUS.
`0af` MHD marked `S_ACT` but DFC not marked `S_ACT`.
`0b1` MHD marked `S_ACT` but SBUS not marked `S_ACT`.
`0b3` Simplex MHD restore failed config denied removal.

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0b5 Simplex MHD restore failed config OKed removal.
0b8 MHD restore failed and no S_ACT mate.
0c0 initkint() (interrupt detach/attach) failed.
0c3 Fail to request pump after boot.
0c6 Invalid MHD to be restored during boot.
0c9 Invalid mate MHD.
0ca RID to UCB conversion failed.
0cb RID update and release failed.
0cf Duplicate fields in the message do not match.
0d5 Byte offset not on word boundary.
0d7 Maintenance job failure - see DKDRV error report.
0d9 PSM sent a bad power transition message.
0db temp message - old message returned.
0dd Unknown maintenance ACK received.
0df Unrecognizable message type.
0e2 Unrecognizable device.
0e5 Unknown FMGR ACK message received.
0e6 Segment removed failed, pump buffer retained.
0e8 Unknown MMGR ACK message received.
0ec Unknown DKDRV ACK message received.
0ef Unknown ACK message received.
0f0 Incorrect swap LOG_REC RID from ECDORG.
0f1 Incorrect SWAP MDCT RID.
0f2 Can't update the ROOT/SWAP device table.
0f3 dlm indicator alocmsg() failed (to SIM).
0f4 dlm indicator alocmsg() failed (to DKDIP).
0f6 dlm indicator alocmsg() failed(to DKDIP).
0f8 dlm indicator alocmsg() failed(to DKDIP).
0fa Could not get a CDLM timer entry.
0fb dlmstrt ost returned SWFAIL.
0fd microstore limpmode flag set.
0fe Bad return from dlmstrt.
0ff Unknown RID from DKDIP.
100 Invalid operation code in UTIL message.
101 Power down of an active unit.
102 DFC power down message received - unit still usable.
103 Device powered down - abort client.
104 Power down message received - unit still usable.
105 dlm indicator alocmsg() failed.
106 Special priority queue full.
107 spqjobid() failed.
108 Invalid device type for power up check.
10a intpwait() function failed.
110 No VTOC on disk pack.
113 VTOC too large for DKDRV to handle.
116 Invalid partition number in VTOC entry.
119 Invalid partition number in message.
140 Virtual address does not map into segment number.
145 iolock() failed.
14a uniolock() failed.

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`160` RID to UCB LLA call failed.
`165` RID update and release failed.
`16a` RID unknown by DKDRV.
`170` RID to UCB LLA call failed.
`175` RID update and release failed.
`17a` RID to UCB LLA call failed.
`180` RID update and release failed.
`185` RID to UCB LLA call failed.
`18a` RID update and release failed.
`190` Invalid inhibit administration opcode.
`1a0` `dtchintr()` call returned fail.
`1a5` `atchintr()` call returned fail.
`1aa` `enabintr()` call returned fail.
`1b0` ECD attach failed.
`1b3` DLM INIT failed.
`1b5` CONFIG OPEN failed.
`1b8` atchdata call to ECD failed.
`1bc` No DFCs in ECD.
`1be` DFC growth failed.
`1c3` downucbs ECD call failed.
`1c6` SBUS growth failed.
`1c9` downucbs ECD call failed.
`1cc` Growth of SCSI device failed.
`1ce` downucbs ECD call failed.
`1d1` SMD MHD growth failed.
`1d3` Too many devices.
`1d6` RID to UCB conversion failed.
`1d8` Invalid device type.
`1d9` Unable to determine DFC type.
`1dc` RID update and release failed.
`1de` Device is unequipped.
`1df` Invalid DFC internal device ID.
`1e1` Channel RID to UCB conversion failed.
`1e3` Invalid SBUS internal device ID.
`1e5` DFC RID to UCB conversion failed.
`1e7` Invalid device ID for SCSI device.
`1e9` SBUS RID to UCB conversion failed.
`1eb` Invalid SBUS internal device id.
`1ed` DFC RID to UCB conversion failed.
`1ef` Invalid device ID for SMD MHD.
`1f2` DFC RID to UCB conversion failed.
`1f4` Incorrect device type for the device's control unit.
`1fc` Memory initialization failed.
`1fe` DKDRV port attach failed.
`203` `getpta()` function failed.
`206` RID to UCB conversion failed.
`209` `idmadev()` (write to DMAC RAM) failed.
`20c` `atchintr` call failed.
`20f` RID not known by DKDRV.
`213` DFC being de-grown is in use.

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`216` Update of DKDRV local DFC UCB failed.
`219` DFC being de-grown not in UNEQIP state.
`21c` SBUS being de-grown is in use.
`21f` Update of DKDRV local SBUS UCB failed.
`223` SBUS being de-grown not in UNEQIP state.
`226` Unit being de-grown is in use.
`229` Update of DKDRV local device UCB failed.
`22c` Unit being de-grown not in UNEQIP state.
`22f` RID to UCB conversion failed.
`233` RID update and release failed.
`236` Drive type in ECD does not agree with backplane - restore aborted.
`239` RID to UCB conversion failed.
`23a` RID update and release failed.
`23b` RID to UCB conversion failed.
`23c` Get option block for DFC failed.
`23d` Invalid `eirflag` field in DFC option block.
`23e` Get option block for MHD failed.
`240` Delay (failed to find interrupt set in BIC).
`242` RID to UCB conversion failed.
`250` Job complete code == fail.
`252` Job request not allowed.
`254` Job request not allowed.
`258` Tape device already opened.
`25a` Driver I/O error.
`25c` No `S_ACT` device - open.
`260` Incorrect MDCT from IO message.
`263` Growth of device failed.
`265` No RIDs in ECD MDCT.
`268` Warning - enlarge DKDRV's internal MDCT.
`26c` Disk specific write not allowed.
`270` No `S_ACT` device - read.
`275` Invalid partition number in read message.
`278` Access to DIAG partition is not allowed - read.
`27a` Unable to inventory job.
`27d` `bhqjobid()` failed.
`280` `io_blk` exceeds partition size - read.
`290` No `S_ACT` device - write.
`295` Invalid partition number in write message.
`29a` Tried to write into protected partition.
`2b1` No job IDs left.
`2ba` Unable to inventory all jobs.
`2be` Access to DIAG partition is not allowed - write.
`2c0` `io_blk` exceeds partition size - write.
`305` Unrecognizable DKDRV internal job type.
`307` Unexpected denial of request to remove MHD.
`308` Duplex operation compromised due to removing MHD.
`320` Boot indicator message allocation failed.
`325` INIT entry failed.
`32a` Unexpected event.
`340` do_error(0x340) `FLT_SINIT` fault code.

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343 Failed to restart driver.
346 Old non-queued audit error message.
349 Unexpected fault code.
34c Critical hit - S_RSP.
34f Critical hit - S_MSG.
353 Driver state error.
355 Calling dfcinit() for lack of "warm" restart.
356 ss32b() failed.
359 PIC never reset CMD IN PROG flag.
35f progio (D2SBS clear) failed.
363 progio (BIC initialization and PIC reset) failed.
366 initmem5 (DMAC RAM initialization) failed.
369 enabintr function failed.
36c progio (send ABORT command to PIC) failed.
36f progio (set BIC IFEN flag) failed.
373 Unknown RID faulted.
376 PIO lost for a unit.
379 Unknown RID faulted.
37c Unexpected fault code.
37f Message buffer audit error - abort maintenance on this unit.
383 timereq() failed - dfcinit().
391 invalid pdfptr.
392 invalid pdfptr.
395 RID to UCB LLA call failed.
397 Message alloc failed (to FMGR).
398 Could not get a timer entry for FMGR.
39b Major DFC reinitialization due to either operational problems or manual request.
39c Tape operations aborted.
39e Warning - queue full detected.
3a6 Invalid dfcinit() sequence.
3a9 Can't identify panic dump device.
3ac Incorrect PANIC DUMP RID.
3af ss32b() failed.
3b3 PIC never reset CMD IN PROG flag.
3b6 progio (D2SBS clear) failed.
3b9 progio (BIC initialization and PIC reset) failed.
3ba Failed to clear BIC INTP.
3bc kint() - stray interrupts detected.
3be kint() entered before kfault() after panic dump.
3d0 RID not known by DKDRV.
3d3 DKDRV has aborted client.
3d5 Invalid maintenance state.
3d8 Device file not open.
3dc Another process has device file open.
3dd Tape device is already open.
3de Request prohibited on S_ACT DFC.
3e1 maint() attach interrupt failed.
3e3 maint() enable interrupt failed.
3e5 UCB is not a DFC.
3e8 DMAC RAM initialization failed.

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3ec Detach / attach / enable interrupt failed.
3ef Detach interrupt failed.
401 Device type is not SCSI.
402 FORMAT - unit is not a disk.
403 Device type is not SCSI for explicit SCSI command.
404 DFC must be active.
405 DFC is not ACTIVE for SCSI command.
406 SBUS must be active.
407 SBUS is not ACTIVE for SCSI command.
409 CONFIG denied request to remove unit.
40a Base queue full.
40b Time limit exceeds capability.
40c May only restore S_OOS units.
40d Failed to get job id.
40e Restore request no good - DFC not S_ACT.
40f queuejob failed.
412 Restore request no good - SBUS not S_ACT.
415 Compare / correct - unit not a disk.
418 Compare / correct - DFC not S_ACT.
41b Compare / correct - SBUS not ACTIVE.
41d May not compare / correct a S_INIT unit.
41f Only one compare / correct is allowed to run at one time.
422 May only restore S_OOS units.
425 SBUS restore - DFC is not ACTIVE.
426 MHD or MT restore - SBUS is not ACTIVE.
427 MHD restore - DFC is not ACTIVE.
428 DIAG SYSGEN PIO failed.
429 Restore not allowed - device not supported.
42a UCB is not a DFC UCB.
42c Not allowed to DGN an S_ACT unit.
42e Special queue full.
432 Invalid device to be diagnosed.
435 spqjobid() failed.
438 queuejob() failed.
43c getdmaa() function failed.
43e Received WSETUP0 before SPECDMA.
442 WSETUP1 received before WSETUP0.
445 uniolock() failed.
448 getdmaa function failed.
44c Invalid disk lock process.
44f Base queue full.
452 bhqjobid() failed.
455 queuejob failed.
458 Version job failed.
460 FORMAT requires non-S_ACT MHD.
462 FORMAT/VERIFY - unit is not a disk.
465 FORMAT/VERIFY requires S_ACT DFC.
468 INIT/VFY MHD - SBUS not S_ACT.
46a VERIFY in progress - retry later.
470 Start track / block greater than last track / block.

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473 Base queue full.
476 `bhqjobid()` failed.
479 MHD usability changed because of INIT operation.
47c `queuejob()` failed.
480 Invalid when MHD is `S_ACT`.
483 DFC must be `S_ACT`.
486 Invalid when MHD is `S_ACT`.
489 DFC must be `S_ACT`.
48b `REMAP devserv()` failed.
48d Device major status update failed.
48f Failed to initialize device status.
492 Base queue full.
494 Unable to queue LM job.
496 Invalid DFC type for DFC reset request.
498 DFC is not ACTIVE to be reset.
49a Firmware is running - cannot reset DFC.
49f DFC type does not support pump.
4a3 DFC is not ACTIVE for pumpcode downloading.
4a6 Other pump in progress - retry later.
4a9 Unable to queue pump job.
4aa Device must be non-ACT to initialize error message inhibit flag.
4ab CLRMAEC - unit is not a disk.
4ac Invalid opercode in maintenance message.
4ae Unexpected maintenance interrupt.
4b3 `dtchintr()` call failed.
4b6 Maintenance work timed out.
4b9 No base or high job IDs left.
4bc Failed to get page table address.
4be No job IDs left for base or high queue.
4c2 Offset of the SCSI command is not on word boundary.
4c5 Explicit SCSI command, response and data are not on the same segment.
4c8 Base queue full for SCSI command.
4ca Request exceeds DFC capability.
4cb Invalid second device for SCSI command.
4cc Request exceeds expscsi capability.
4cd Unable to queue the SCSI command.
4d0 `readvtoc()` function failed.
4d1 Another pump in progress, retry later.
4d2 Flash reprogram not started.
4d3 Unable to program flash memory on S_ACT unit.
4d5 `readvtoc()` job failed.
4d6 Unable to clear DDSBS.
4d8 Unable to send command to BIC.
4d9 `getpta()` function failed.
4da VTOC sort function failed.
4db `initmem5()` DMAC init failed.
4dc Unable to send command to BIC.
4dd `dtchintr` call returned fail.
4de `atchintr` call returned fail.
4df DFC pump: `getjobid()` failed.

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`4e0` Invalid `newvtoc()` sequence.
`4e1` Failed to write word in BIC FIFO.
`4e2` `enabintr()` call returned fail.
`4e3` Failed to write word in BIC FIFO.
`4e5` Partition number out of range for DKDRV.
`4e6` Failed to write word in BIC FIFO.
`4e7` Failed to write word in BIC FIFO.
`4e8` Partition number out of range for VTOC.
`4e9` `wakeup()` PIO failed.
`4eb` Unable to get firmware versions.
`4f1` Flash reprogram not started.
`4f2` Unable to clear DDSBS.
`4f3` Unable to send command to BIC.
`4f5` DFC pump: `getjobid()` failed.
`4f7` Failed to write word in BIC FIFO.
`4f9` Failed to write word in BIC FIFO.
`4fa` Failed to write word in BIC FIFO.
`4fb` Failed to write word in BIC FIFO.
`4fc` `wakeup()` PIO failed.
`500` Base queue full for maintenance read.
`503` Tried to use invalid VTOC for maintenance read.
`505` Invalid partition number in message.
`508` Invalid block in partition.
`50c` `bhqjobid()` failed for maintenance read.
`50e` Unable to inventory job for maintenance read.
`520` Base queue full for maintenance write.
`523` Tried to use invalid VTOC for maintenance write.
`526` Invalid partition number in message.
`529` Tried to write into protected partition.
`52c` Invalid block in partition.
`537` MHD usability changed because of `pdfwrite` job.
`539` `bhqjobid()` failed for maintenance write.
`53b` Unable to inventory job for maintenance write.
`550` Physical device file not opened.
`553` Incorrect READ/WRITE access permissions.
`556` `iolock` failed.
`55b` `getjobid` failed.
`55f` Maintenance I/O request to a non-disk device.
`56a` DISK read or write requires active DFC.
`56f` DISK read or write requires active SBUS.
`573` This physical device file already open.
`575` Device major status update failed.
`57a` Update of device file variables failed.
`580` May not maintenance write ACT device.
`583` SDF prematurely closed during a restore.
`585` `uniolock` failed.
`5a0` Command to BIC failed.
`5a5` Command to PIC failed.
`5aa` Clear of DDSBS failed.
`5b0` Read status of DDSBS failed.

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5b5 Read of BIC FIFO failed.
5ba Write of BIC FIFO failed.
5bc Read status of BIC failed.
5bf BIC command to read HA shadow register failed.
5c3 Read status of SCSI HA shadow register failed.
5c5 `progio cmdtype` not defined.
5e0 `queuejob()` failed.
5e1 Base queue full.
5e2 `getjobid()` failed.
5ec `intpwait()` function failed.
5f0 `Readdisk queuejob` failed.
5f1 `Readdisk` base queue full.
5f2 `Readdisk getjobid` failed.
5fc `Readdisk intpwait` function failed.
600 Excessive errors - device being reset.
601 Excessive errors - device being reset.
603 SBUS work terminated - DFC going S_OOS.
609 DFC sub-device work terminated - DFC going S_OOS.
60a Tape work terminated - DFC going S_OOS.
60c SBUS sub-device work terminated - SBUS going S_OOS.
60d Tape work terminated - SBUS going S_OOS.
60e CONFIG `chgstate()` call failed.
613 `dtchintr()` failed.
615 `devserv(OFFLINE)` function failed.
618 `devserv(OFFLINE)` job failed.
61c `sbuserv(OFFLINE)` function failed.
61f `sbuserv(OFFLINE)` job failed.
650 RID to UCB LLA call failed.
653 RID to UCB LLA call failed.
655 RID to UCB LLA call failed.
658 RID to UCB LLA call failed.
65c RID to UCB LLA call failed.
65e RID to UCB LLA call failed.
661 RID to UCB LLA call failed.
663 RID to UCB LLA call failed.
666 RID to UCB LLA call failed.
667 RID to UCB LLA call failed.
669 RID to UCB LLA call failed.
673 RID to UCB LLA call failed.
678 RID to UCB LLA call failed.
67a EIR contains job ID not in use.
67b RID to UCB LLA call failed.
67c RID to UCB LLA call failed.
67d RID to UCB LLA call failed.
67e RID to UCB LLA call failed.
682 RID to UCB LLA call failed.
6a9 Retry PIO failed.
6aa Failed to requeue job.
6b0 Remake: job ID not in use.
6b5 Remake: bad message type.

`6be` Restore - invalid device type.
`6c0` Unable to change usable bit for DFC.
`6c3` `CONFIG chgstate` call failed.
`6c5` DKDRV DFC memory init failed.
`6c8` `initmem5()` (DMAC init) failed.
`6ca` `initmem6()` (atchintr) failed.
`6ce` `progio` (D2SBS clear) failed.
`6d1` `progio` (BIC initialization and PIC reset) failed.
`6d3` `enabintr()` failed.
`6d5` `SYSGEN` function failed.
`6d8` `sysgen` job failed.
`6d9` `dfc_vers` request function failed.
`6da` `dfc_vers` job failed.
`6db` `dfc_vers` request function failed.
`6dd` `dfc_vers` job failed.
`6df` `dfcserv(ONLINE)` function failed.
`6e2` `dfcserv(ONLINE)` job failed.
`6e5` CONFIG chgstate call failed.
`6e8` Unable to change usable bit for DFC.
`6eb` Cannot request a timer for pump after DFC restore.
`6ef` Invalid DFC restore sequence number.
`6f2` Unit is in FULL DLM - abort restore.
`6f5` Mate unit is in FULL DLM - abort restore.
`6f8` Unable to change usable bit for MHD.
`6fb` CONFIG chgstate call failed.
`6fe` DKDRV MHD memory initialization failed.
`6ff` `dlm_chks()` denied restore request.
`701` `readdisk()` function failed.
`703` Disk job `(readdisk)` failed.
`706` `devserv(ONLINE,RSTJOB)` function failed.
`709` DFC failed to put MHD on-line.
`70c` `readvtoc()` function failed.
`70e` Disk job `(readvtoc)` failed.
`711` VTOC integrity check failed.
`713` CONFIG chgstate call failed.
`715` Unable to change usable bit for MHD.
`718` Invalid MHD restore sequence number.
`71c` CONFIG chgstate call failed.
`71e` `sbuserv(ONLINE)` function failed.
`722` `sbuserv(ONLINE)` job failed.
`725` CONFIG chgstate call failed.
`728` Unable to change usable bit for SBUS.
`72c` Invalid SBUS restore sequence number.
`730` Maintenance state audit requested.
`732` Invalid MHD "`compcor`" sequence number.
`741` Unit is in FULL DLM - abort restore.
`742` Failed to change usable bit for tape.
`745` CONFIG `chgstate` call failed.
`748` DKDRV tape memory initialization failed.
`74b` `devserv(ONLINE)` function failed.

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74e Failed to put tape device ONLINE.
752 CONFIG `chgstate` call failed.
755 Failed to change usable bit for tape.
758 Invalid tape restore sequence number.
75b DIOP restore not allowed - mate MHD is active.
75e DIOP restore not allowed - MHD is marked essential.
760 `progio` (set BIC IFEN flag) failed.
761 Wakeup PIO failed.
762 Resume PIO failed.
765 `progio` (send SYSGEN command to PIC) failed.
76a `intpwait` function failed.
770 Job timed out.
775 DFC timed out.
776 Invalid pump state.
778 Cannot request timer for DFC pump.
77a DFC entering overload.
77c DFC leaving overload.
77f DFC usability audit failed.
790 Timing table full.
795 Timeout request is out of range.
7c0 No base or high job IDs left.
7c3 No job IDs left for base or high queue.
7c5 No job IDs left for special queue.
7c7 Failed to get page table address.
7c9 No job IDs left for PIO jobs.
800 `prc/s_update` terminated abnormally.
801 `prc/s_dskutil` terminated abnormally.
825 Could not `alloc` msg buf.
830 Could not `pcreat` process.
835 Could not `alloc` msg buf.
900 DKDIP pid is null.
903 `alocmsg` failed.
906 Failed to remove the segment.
909 Cannot pump - other pump in progress.
90c Invalid DFC state for pump.
90e Cannot perform pump at this time.
911 DFC is not `S_ACT` for pump.
913 Invalid global pump state.
916 DFC is scheduled for major reinitialization - can't pump.
919 Pump not started - DFC is reserved.
91b Firmware version not known.
91c Failed to allocate message for FMGR.
91d Cannot `alloc` message for FMGR.
91e File stat error.
91f Pump-file is zero byte in size.
921 Pump-file is not a contiguous single extent file.
923 Can't get `segnum`.
926 Fail to queue the pump request.
929 Can't get `segnum`.
92c Fail to determine pump type.

`92d` Can't get `segnum` for DKDRV's internal pump buffer.
`92e` Failed to download the pumpcode.
`931` Request to read pump-file failed.
`933` Failed to read pump-file.
`936` Failed to send the pump request.
`939` Pump failed at last pump.
`93c` Failed to queue a version command in pump procedure.
`93e` Pumpcode version command failed.
`93f` Failed to start new pump.
`943` Invalid pump sequence.
`946` Invalid MDCT RID for pump file.
`949` Invalid segment size requested.
`94c` Failed to get a segment index for new segment.
`94e` Failed to get a segment number for new segment.
`951` Failed to allocate a message buffer.
`953` Failed to allocate a message buffer.
`956` Can't `iolock` the buffer.
`959` Can't allocate the message buffer for reading pumpfile.
`95c` Can't send the I/O message.
`95f` DFC pump: high priority queue full.
`963` DFC pump: base priority queue full.
`966` DFC pump: `getjobid` failed.
`969` DFC pump: `queuejob` failed.
`96c` Can't remove the segment used for pump buffer.
`96f` Invalid time out for pump procedure.
`971` Pump timeout - abort pump.
`980` Incorrect root `LOG_REC RID` from ECDORG.
`981` Incorrect root MDCT RID.
`990` The UCB RID for the "alternate" device is invalid.
`992` Update of DKDRV local device UCB failed.
`994` Invalid MDCT RID.
`996` Failed to get MDCT record.
`998` Update of DKDRV local device UCB failed.
`a01` `s_update` started.
`a0a` Bad MAINT message opercode.
`a15` Can't open ECD.
`a1a` Cannot get specified unit UCB.
`a20` Specified unit UCB not reserved.
`a25` Failed to get "to" unit SDF.
`a2a` Open of "to" SDF failed.
`a30` `ugucbm()` failed.
`a35` No active mate found.
`a3a` Failed to reserve active mate UCB.
`a40` Failed to get "from" unit SDF.
`a45` Open of "from" SDF failed.
`a48` Can't read VTOC on active disk.
`a4a` Invalid VTOC on active disk.
`a55` Asynchronous write failure.
`a5a` Asynchronous write failure.
`a60` VTOC read (source disk) failed.

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a65 VTOC write (destination disk) failed.
a6a Too many partitions.
a70 Block number not within VTOC.
a75 Primary BBOOT partition is INVALID.
a7a Backup BBOOT partition is INVALID.
a80 Tried to access unopened file.
a85 `segoff()` failure.
a8a `movetrap()` failure.
a90 Disk read error.
a95 Disk read error - correctly reread.
a9a Invalid file descriptor.
aa0 `IOQUEUEM` failure.
aa5 Maintenance job to DKDRV failed.
aaa Received application abort restore request.
ab5 Invalid argument.
aba `segname` already exists.
ac0 Segment exists.
ac5 No segments available.
aca Not enough space.
ad0 Bad `segndx`.
ad3 Can't find a free `segindex`.
ad5 `segoff` failure.
ada Driver startup message not received.
ae0 Terminated externally.
ae5 Invalid `U_ABRTRST` message.
aea Invalid maintenance message.
af0 Unknown `ACK` message.
af5 Process was faulted.
b01 `s_dskutil` started.
b06 Cannot connect to port `PT_DSKUTL`.
b09 Bad MAINT message opercode.
b10 Can't open ECD.
b13 "DEST" unit not specified.
b16 `ugucbm()` failed for "DEST" unit.
b19 Cannot get "DEST" unit UCB.
b1c "DEST" unit UCB not reserved.
b20 Failed to get "TO" unit SDF.
b23 Open of "TO" SDF failed.
b26 Dup of "TO" SDF failed.
b29 `ugetucb()` failed for "FROM" unit.
b36 Failed to reserve "FROM" unit UCB.
b39 Failed to get "FROM" unit SDF.
b3c Open of "FROM" SDF failed.
b40 Remove mate of "DEST" unit and reenter command.
b46 Dup of "FROM" SDF failed.
b48 Failed to read VTOC on "TO" disk.
b49 Invalid VTOC on "TO" disk.
b4b Failed to read VTOC on "FROM" disk.
b4c Invalid VTOC on "FROM" disk.
b50 Both VTOCs do not match.

b5c Read failure (DEST disk).
b60 Read failure (SRC disk).
b63 Too many partitions.
b66 VTOCs do not match in size.
b69 Sync write failure (DEST disk).
b6c Block number not within VTOC.
b70 Block number not within VTOC.
b73 Block number not within VTOC.
b80 Tried to access unopened file.
b85 `segoff` failure.
b8a `movetrap` failure.
b90 Disk read error.
b95 Disk read error - correctly reread.
b9a Invalid file descriptor.
ba0 `IOQUEUEM` failure.
ba5 Maintenance job to DKDRV failed.
baa Received application abort restore request.
bb5 Invalid argument.
bba `segname()` already exists.
bc0 segment exists.
bc5 No segments available.
bca Not enough space.
bd0 Bad segndx.
bd3 Can't find a free `segindex`.
bd5 `segoff` failure.
bda Driver startup message not received.
be0 Terminated externally.
be5 Invalid `U_ABRTRST` message.
bea Invalid maintenance message.
bf0 Unknown `ACK` message.
bf5 Process was faulted.
c02 Tape device already open.
c0b Device not active.
c12 Open for both read and write.
c15 Incorrect read / write access permissions.
c18 Failed to send `test unit ready` command.
c1b `Test unit ready` command failed.
c1e `Test unit ready` command failed.
c22 Failed to send `test unit ready` command.
c25 `Test unit ready` command failed.
c28 `Test unit ready` command failed.
c2b Failed to send `test unit ready` command.
c2e `Test unit ready` command failed.
c32 `Test unit ready` command failed.
c35 Failed to send `inquiry` command.
c38 `Inquiry` command failed.
c3b `Inquiry` command failed.
c3e Insufficient `inquiry` data.
c42 Failed to send `inquiry` command.
c45 `Inquiry` command failed.

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`c48` `Inquiry` command failed.
`c4b` Unknown device.
`c4e` Failed to send `read block limits` command.
`c52` `Read block limits` command failed.
`c55` `Read block limits` command failed.
`c58` Partition information is invalid.
`c5b` Not a supported tape device.
`c5e` Invalid tape I/O open sequence number.
`c62` Reserved field in partition used.
`c65` Device does not support variable record sizes.
`c68` Device does not support fixed records.
`c69` Fixed record size is invalid.
`c6a` Invalid record type specified.
`c6b` Record size greater than device capability.
`c6e` Record size less than device capability.
`c72` Failed to send tape setup command to DFC.
`c75` Tape setup command failed.
`c78` Invalid sequence number.
`c82` Base queue full.
`c85` Failed to get job ID.
`c88` Request exceeds DFC capability.
`c89` Request exceeds expscsi capability.
`c8b` No base/high job IDs left.
`c8e` No job IDs left for base/high queue.
`c92` Base queue full.
`c95` Failed to get job ID.
`c9b` Base queue full.
`c9e` Failed to get job ID.
`ca2` Entity type to space over is invalid.
`ca5` Base queue full.
`ca8` Failed to get job ID.
`cab` Base queue full.
`cae` Failed to get job ID.
`cb1` Device not active.
`cb2` Invalid state for closing device.
`cb7` Invalid state for closing device.
`cb8` Failed to send tape `rewind` command to DFC.
`cbb` Tape `rewind` failed.
`cbe` Invalid sequence number.
`cc2` Failed to send tape `space` command to DFC.
`cc5` Tape `space` command failed.
`cc8` Invalid sequence number.
`ccb` Failed to send `write filemarks` command to DFC.
`cce` `Write filemarks` command failed.
`cd2` Failed to send tape `space` command to DFC.
`cd5` Tape `space` command failed.
`cd8` Invalid sequence number.
`ce2` Device not active.
`ce4` Device not open.
`ce6` Incorrect read/write permissions.

`ce8` Base queue full.
`cea` Failed to get job ID.
`cec` Unable to inventory job.
`cf2` Device not active.
`cf4` Device not open.
`cf6` Incorrect read / write permissions.
`cf8` Base queue full.
`cfa` Failed to get job ID.
`cfc` Unable to inventory job.
`d01` Wrong device type specified.
`d02` Failed to send `mode sense` command.
`d05` `Mode sense` command failed.
`d08` `Mode sense` command failed.
`d0b` Failed to send `mode sense` command.
`d0e` `Mode sense` command failed.
`d12` `Mode sense` command failed.
`d15` Not enough data returned from `mode sense` command.
`d18` Unexpected amount of data returned from `mode sense` command.
`d1b` Device is write protected.
`d1e` Failed to obtain expected mode pages.
`d22` Failed to send `mode select` command.
`d25` `Mode select` command failed.
`d28` `Mode select` command failed.
`d2b` Invalid tape sequence number.
`d2e` Multi-partition tape is not supported.
`d31` Wrong device type specified.
`d32` Failed to send `mode sense` command.
`d35` `Mode sense` command failed.
`d38` `Mode sense` command failed.
`d3b` Failed to send `mode sense` command.
`d3e` `Mode sense` command failed.
`d42` `Mode sense` command failed.
`d45` Not enough data returned from `mode sense` command.
`d48` Unexpected amount of data returned from `mode sense` command.
`d4b` Device is write protected.
`d4c` 120 meter tapes are not supported.
`d4e` Failed to obtain expected mode pages.
`d52` Failed to send `mode select` command.
`d55` `Mode select` command failed.
`d58` `Mode select` command failed.
`d5b` Invalid tape sequence number.
`d5e` Multi-partition tape is not supported.
`d61` Wrong device type specified.
`d62` Invalid density specified.
`d65` Failed to send `mode sense` command.
`d68` `Mode sense` command failed.
`d6b` `Mode sense` command failed.
`d6e` Failed to send `mode sense` command.
`d72` `Mode sense` command failed.
`d75` `Mode sense` command failed.

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`d78` Not enough data returned from `mode sense` command.
`d7b` Unexpected amount of data returned from `mode sense` command.
`d7e` Device is write protected.
`d82` Requested density does not match set device density.
`d85` Failed to obtain expected mode pages.
`d88` Failed to send `mode select` command.
`d8e` `Mode select` command failed.
`d92` `Mode select` command failed.
`d95` Invalid tape sequence number.
`da1` Wrong device type specified.
`da2` Invalid density specified.
`da5` Failed to send `mode sense` command.
`da8` `Mode sense` command failed.
`dab` `Mode sense` command failed.
`dae` Failed to send `mode sense` command.
`db2` `Mode sense` command failed.
`db5` `Mode sense` command failed.
`db8` Not enough data returned from `mode sense` command.
`dbb` Unexpected amount of data returned from `mode sense` command.
`dbe` Device is write protected.
`dc2` Requested density does not match set device density.
`dc5` Failed to obtain expected mode pages.
`dc8` Failed to send `mode select` command.
`dce` `Mode select` command failed.
`dd2` `Mode select` command failed.
`dd5` Invalid tape sequence number.
`e01` Not SCSI DFC.
`e03` Invalid DFC state for pump.
`e05` `dtchintr()` call returned fail.
`e07` Unable to clear DDSBS.
`e09` Unable to send command to BIC.
`e0a` Unable to send command to BIC.
`e0b` `atchintr()` call returned fail.
`e0d` `enabintr()` call returned fail.
`e0f` `getjobid()` failed.
`e11` Failed to write word in BIC FIFO.
`e13` `wakeup()` PIO failed.
`e15` `version` command failed.
`e17` `getjobid()` failed.
`e19` Failed to write word in BIC FIFO.
`e1a` `wakeup()` PIO failed.
`e1b` `version` command failed.
`e1c` Unable to allocate message for FMGR.
`e1d` 1-byte wide firmware version not known.
`e1f` Unable to allocate message for FMGR.
`e20` Unable to do a `stat()` on the pumpfile.
`e22` Pumpfile invalid size.
`e24` Pumpfile is not a single extent contiguous file.
`e26` Unable to get segnum.
`e28` Unable to `iolock` the buffer.

`e2a` Unable to allocate the message buffer for reading pumpfile.
`e2c` Unable to send the I/O message.
`e2e` Unable to read pumpfile header.
`e2f` Pumpfile has invalid size.
`e30` 4-wide firmware needs to be reprogrammed, retry later.
`e32` Unable to get segnum.
`e33` Unable to get segnum for DKDRV's internal pump buffer.
`e35` Unable to download the pumpcode.
`e37` Unable to request reading pumpfile.
`e39` Unable to read pumpfile.
`e3a` DFC pump: `getjobid` failed.
`e3b` Failed to write word in BIC FIFO.
`e3d` Failed to write word in BIC FIFO.
`e3f` Failed to write word in BIC FIFO.
`e41` Failed to write word in BIC FIFO.
`e43` `wakeup` PIO failed.
`e45` Pump failed at last pump.
`e46` Cannot remove the segment.
`e47` `dtchintr()` call returned fail.
`e48` Unable to send command to BIC.
`e49` Invalid pump sequence.
`e4a` `dtchintr()` call returned fail.
`e4b` Cannot remove the segment.
`e4c` Unable to send command to BIC.
`e50` Invalid header magic number.
`e53` 1-byte wide firmware and pumpfile are incompatible - issue.
`e55` 1-byte wide firmware and pumpfile are incompatible - generic.
`e57` 4-byte wide firmware and pumpfile are incompatible with 1-byte wide firmware.
`e59` Pumpfile has different revision level.
`e5a` 1-byte wide firmware and pumpfile are incompatible.
`e5c` Unable to determine revision levels.
`e60` Unable to send command to BIC.
`e62` `jcistat` command failed.
`e64` Read status of BIC failed.
`e66` Failed to read BIC FIFO.
`e68` Failed to read BIC FIFO.
`e69` Received interrupt but no response.
`e6a` Failed to clear BIC interrupt.
`e6b` `dtchintr()` call returned fail.
`e6c` Unable to send command to BIC.
`e6d` `dtchintr` call returned fail.
`e6e` `atchintr` call returned fail.
`e6f` `enabintr` call returned fail.
`e70` DFC flash programming timed out.
`e71` Unable to clear DDSBS.
`e72` Unable to send command to BIC.
`e73` DFC `version` command failed.
`e74` Unable to send command to BIC.
`e78` `initmem5()` DMAC initialization failed.
`e7a` `dtchintr` call returned fail.

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`e7b` `atchintr` call returned fail.
`e7c` `enabintr` call returned fail.
`e7d` `getjobid` failed.
`e7f` Unable to send `version` command failed.
`e80` Unrecognizable DKDRV internal job type.
`e85` Response contains jobid not in use.
`e86` IO job has no associated IO message.
`e88` IO message "ms_to" field is invalid.
`e8a` Message type not IOREAD or IOWRITE.
`e8c` No job found in inventory data.
`e8d` Invalid completion code returned by DFC.
`e8f` Job reported error.

ID . . . . . APP-DFC-APPB-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

This appendix contains several tables. Table 1 describes disk file controller (DFC) error codes and the corrective actions which may be taken. Table 2 describes several conditional success codes. Table 3 explains the special completion codes, which are applicable for autonomous response output messages. Table 4 contains the enhanced completion codes. Table 5 contains the values of the firmware/pumpcode, driver communications register. Table 6 contains job types pending.

The data in Table 2 and Table 3 are seen only by the disk driver. They are included here only to provide complete documentation on the DFC error codes.

Table 1 lists the errors which can be detected by the DFC, explains the cause of the error, and shows any corrective actions which may be required. The DFC responds to all system-requested work with job completion codes. When the DFC detects errors on those jobs, it reports with the error information shown in Table 1. In addition to running those jobs, the DFC can create its own internal work and can handle requests which do not have unique job identification codes.

All error codes are in hexadecimal.

Table 1 - DFC Error Codes

DFC Name	Code	Probable Cause and Corrective Action
CCOK	00	Job completed okay. This code implies successful completion, except in some autonomous responses. In the case of autonomous responses, the special completion code takes precedence over this code.
CCRAMWE	80,81	PIC ram read/write boundary error. If the DFC is a SMD-DFC. The DFC was requested to write outside the address range of E00 to FFF (hexadecimal). This area is reserved for the diagnostics group and may be read and/or written by them. Addresses outside this range are reserved for the operational portion of the firmware and may not be written by anyone. **ACTION** - This error should never occur since only the diagnostics group uses the write ram command.

Table 1 - DFC Error Codes *(continued)*

DFC Name	Code	Probable Cause and Corrective Action
		If the DFC is a SCSI-DFC. The DFC was requested to write to write-protected RAM. The DFC was requested to write to outside of allowed area of DFC RAM. The DFC was requested to read non-existent memory. **ACTION** - This error should never occur since only the diagnostics groups uses the ram read and write commands.
CCSEEKER	82,83	Seek error on disk. The DFC issued a seek to an MHD and then detected an error in the MHD. The error from the MHD indicates either that the seek did not complete within 75 milliseconds, or that the drive interpreted the address seek as beyond the last available cylinder on the disk. **ACTION** - Check the cables to the MHDs for loose connections or perform preventive maintenance.
CCNOINDX	84,85	No index detected on disk. The DFC could not find an 'index' mark from the disk after counting 33 sector marks. **ACTION** - Replace either the disk pack or the MHD in question.
CCERRCMD	86,87	Invalid command from computer. The DFC received a command that was not valid for the state of the DFC. **ACTION** - There is no user response for this error. See support group.

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Table 1 - DFC Error Codes *(continued)*

DFC Name	Code	Probable Cause and Corrective Action
CCSTATER	88,89	MHD status error. There is a problem with the drive which the DFC tried to access. One of the following: No unit ready - The drive is not powered up or the ID plug is missing. No on cylinder indication - The drive has not been powered up or the disk pack is not spinning. Fault - There is a hard fault on the drive, *not* the disk pack, which the firmware cannot correct. **ACTION -** Correct the problem and try again.
CCUCDE	8A,8B	Uncorrectable data error. If the DFC is a SMD-DFC, the DFC detected an error in the data on the disk which is beyond 11 bits long. The data which has been read cannot be used. **ACTION -** Use the VERIFY command to determine the location of the error and re-format the track on which the error is located. The data on that track is lost forever, and the whole disk pack may have to be re-populated with data from a mate disk. If the DFC is a SCSI-DFC, the target controller was not able to read a block of data from the disk. **ACTION -** Use the VERIFY command to determine the location of the error. Place the location of the error in a defect list and re-format the disk. The whole disk pack must be repopulated with data from a mate disk.
CCDBO	8C,8D	Disk boundary overflow. An attempt to read or write beyond the last block on a disk was made. **ACTION** - Run MHD diagnostics, and check the data cables. Another possibility is that the VTOC on the disk specifies a partition which exceeds the last available cylinder on the disk pack.

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Table 1 - DFC Error Codes *(continued)*

DFC Name	Code	Probable Cause and Corrective Action
CCUHSM	8E,8F	Head - sector mismatch error. The DFC read a sector off the disk and the header information, which contains the cylinder, head and sector number, did not agree with the value the DFC calculated for the head-sector number. **ACTION** - Try the job again and if it fails, reformat that area of the disk.
CCUWD	90,91	Wrong disk selected. A disk which the controller did not try to select answered to the poll of the disks. **ACTION** - Check the id plug of the drive and then make sure that the data cable to the drive is properly placed on the backplane of the DFC.
CCUND	92,93	No disk selected. There was no answer to the polling of the disks, but the DFC expected an answer. **ACTION** - Ensure that the disk to be selected is powered up, that its data cable is in the right place on the DFC backplane, and that the drive has an id plug.
CCUHP	94,95	Head positioning error. The drive was requested to go to a given cylinder, but upon reading the header from the cylinder, the cylinder number there did not match the number that the DFC had calculated it should be. There was no seek error (8300) detected. **ACTION** - Try the job again or reformat that area of the disk pack where the error occurred.
CCUHSE	96,97	Head selection error. The head number read from the disk did not agree with what the DFC had calculated it should be. **ACTION** - Retry the job, or reformat the area of the disk pack where the error occurred, or check the control cable to the MHD.

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Table 1 - DFC Error Codes *(continued)*

DFC Name	Code	Probable Cause and Corrective Action
CCUBPE	98,99	BIC parity error. There was a data parity error on a data transfer either to or from the BIC when the BIC was communicating with the processor. **ACTION** - The DFC cannot cause this error, only report it. The BIC and/or the DDSBS should be diagnosed.
CCUBPSE	9A,9B	BIC-PIC Soft Error. **ACTION** - Run DFC diagnostics.
CCPICE	9C,9D	PIC error. The DFC tried to do a match against a known condition but could not detect a match condition. For example, if the DFC knows that there is a command to decode from BIC, the DFC tries to decode the command; if no match is found, this error is generated. **ACTION** - Run DFC diagnostics.
CCU3BE	9E,9F	DMA setup overwrite. The BIC detects that the DMA has attempted to write to the BIC data fifo while a setup request is pending. **ACTION** - Run DFC and DMA diagnostics.
CCUJTE	A0,A1	Early EOT from DMA. The error is detected in the BIC when the BIC receives an EOT signal from the DMA and the DFC has not set the EOT EXPECT flag in the BIC. **ACTION** - Run BIC and DMA diagnostics.
CCUNET	A2,A3	No EOT from DMA. The error is detected in the BIC when the DFC has set the EOT EXPECT flag in the BIC and the DMA has responded to a transfer request with data rather than an EOT. **ACTION** - Run BIC and/or DMA diagnostics.

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Table 1 - DFC Error Codes *(continued)*

DFC Name	Code	Probable Cause and Corrective Action
CCPUMPER	A4,A5	Error detected in pumped data. The file containing the data to be pumped is not compatible with the firmware on the SCSI-DFC or there is an error in the contents of the pump file. **ACTION** - Check that the UCB associated with the SCSI-DFC points to the pump file compatible with the SCSI-DFC.
CCUFPE	A6,A7	PSDI fifo parity error. The parallel to serial data interface in the DFC has detected a parity error in the data stream which has been written on the disk. **ACTION** - Run DFC diagnostics.
CCUFUF	A8,A9	PSDI fifo underflow. The PSDI has run out of data while trying to write data on the disk. This will cause a single sector on the disk to be scrambled, and a reformat of the track must be initiated. **ACTION** - Reformat the track where the error occurred and run DFC/MHD diagnostics.
CCUFOV	AA,AB	PSDI fifo overflow. The PDSI fifo received more data than it could hold while reading the disk. **ACTION** - Run DFC/MHD diagnostics.
CCUPAK	AC,AD	PSDI acknowledge failure. The DFC tried to start the PSDI in a read or write mode but the PSDI failed to respond. **ACTION** - Run DFC/MHD diagnostics.

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Table 1 - DFC Error Codes *(continued)*

DFC Name	Code	Probable Cause and Corrective Action
CCUFED	AE,AF	Extra data in PSDI. The DFC has finished reading what it thought was 512 data bytes from the disk, but data continued to arrive. **ACTION** - The data format on the disk is not correct and must be reformatted.
CCUDBE	B0,B1	Disk data buffer error. The DFC could not find any internal data buffers into which it could put data. This is a DFC internal error code. **ACTION** - None.
CCMASADR	B2,B3	Main store address error. The DFC has calculated a setup of an address in 3B mainstore which will cross a page table (segment) boundary. **ACTION** - Check the coding of the program in 3B which causes this to occur.
CCDEVTO	B4,B5	Device timed out. The DFC has tried to access a device, and the device has failed to respond in a reasonable amount of time. **ACTION** - Check the following DKDRV error for the MHD status to determine the failure.
CCFAIL	B8,B9	Generic failure response. An error has occurred which does not fall into any other category. Check the enhanced completion code in the "Enhanced Information Report" for more data. **ACTION** - There is no user response for this error. See support group.
CCUUDD	BA,BB	Uncorrectable data error in manufacturer defect table. **ACTION** - Rebuild manufacturer default table. If error persists, replace disk drive.

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Table 1 - DFC Error Codes *(continued)*

DFC Name	Code	Probable Cause and Corrective Action
CCUTOV	BC,BD	Defect table overflow. **ACTION** - Call support group.
CCDMUNDD	BE,BF	Inappropriate command for defect managed disk. **ACTION** - There is no user response for this error. See support group.
CCDMUCDT	C0,C1	Unable to create user defect table on disk. **ACTION** - There is no user response for this error. See support group.
CCDMTMD	C2,C3	Too many defects in mfgr table. **ACTION** - There is no user response for this error. See support group.
CCDMEPA	C4,C5	Uncorr. data error on area supposedly error-free. **ACTION** - There is no user response for this error. See support group.
CCDMIDDT	C6,C7	Invalid data in defect table. **ACTION** - There is no user response for this error. See support group.
CCDMIDR	C8,C9	Invalid data in ram. **ACTION** - There is no user response for this error. See support group.
CCDMTNG	CA,CB	Invalid manufacturer defect table. **ACTION** - There is no user response for this error. See support group.
CCDMEMA	CC,CD	Uncorr. data error in mfgr. defect table. **ACTION** - There is no user response for this error. See support group.

Table 1 - DFC Error Codes *(continued)*

DFC Name	Code	Probable Cause and Corrective Action
CCDMURDT	CE,CF	Unable to read defect table. **ACTION** - There is no user response for this error. See support group.
CCDMURMT	D0,D1	Unable to read mfgr. defect table. **ACTION** - There is no user response for this error. See support group.
CCDMUWDT	D2,D3	Unable to write defect table. **ACTION** - There is no user response for this error. See support group.
CCUBPR	D4,D5	Mismatch between RAM and expected value. **ACTION** - There is no user response for this error. See support group.
CCBUSOFF	D6,D7	Bus drivers for selected SCSI bus turned off. The bus drivers for a SCSI bus have been turned off. A command using a device on that SCSI bus was sent to the SCSI-DFC. **ACTION** - Turn on the bus drivers before sending commands to devices on the bus. See craft command RST SBUS.
CCINCONC	D8,D9	Command arguments are inconsistent. The arguments passed in a command to the SCSI-DFC are not consistent. The command fails error checks. **ACTION** - There is no user response for this error. See support group.
CCUSTL	DA,DB	Uncorrectable data error and attempt to write temp list failed. **ACTION** - See support group.

Table 1 - DFC Error Codes *(continued)*

DFC Name	Code	Probable Cause and Corrective Action
CCBVD	E0,E1	Mismatch between FIRM and PUMP version. **ACTION** - There is no user response for this error. See support group.
CCPTO	E4,E5	Pump job timed out. **ACTION** - There is no user response for this error. See support group.
CCDKDRV	FF	Reserved for disk driver use.

Table 2 describes the conditional success codes which are seen only by the disk driver.

Table 2 - Conditional Success Codes

Code	Definition
02	The read disk job completed successfully but the DFC had to perform error correction to complete the job. This is an indication that the data are becoming somewhat marginal and that the disk pack may soon require reformatting.
04	In response to a VERIFY command, the DFC found that one or more sectors were not usable. The header information was incorrect or the data could not be corrected using ECC. The disk pack must be reformatted.
07	During a system phase one, the DFC was reset and could not continue a job that was in progress. This success code indicates that the job was reported to the disk driver for appropriate recovery actions.
08	There was a fault condition detected on the disk drive, the DFC was able to correct it and proceed to successful completion.
0A	The DFC detected a seek error on the disk, but was able to correct it and complete the job successfully.
0C	Job was early terminated by the DFC because a subsequent command was received for the same target device.

Table 3 explains the special completion codes, which are only applicable for autonomous response output messages. The description of an error code in Table 1 may be used to supplement Table 3 code descriptions to give a more detailed reason for job failure.

Table 3 - Autonomous Response Special Completion Code

Code	Definition
0	Special job. DFC information report. The DFC is letting the disk driver know there is some EIR information to report.
1	On-board diagnostic error. The on-board diagnostic of the DFC has detected an error, and the DFC should be removed and diagnosed as soon as possible.
2	On-board exerciser error. The disk exerciser has detected an error. The error may be an uncorrectable data error, or a head/sector mismatch, the error should be analyzed using the DFC enhanced error data (REPT-DFCE), if available.
3	SYSGEN command completed. The DFC is reporting the completion of a SYSGEN command. The job id code for the SYSGEN command is zero by design.
4	Boot command completed. The DFC is reporting the completion of a BOOT command. The job id code for the BOOT command is zero by design. Since the disk driver does not issue a BOOT command, this is regarded as an error.

Table 3 - Autonomous Response Special *(continued)*

Code	Definition
5	DFC idle. This is in response to a disk driver initiated ABORT sequence, simply indicating that the DFC was not sending any data for a particular job to the computer using the DMAC.
6	Illegal command. The DFC received a bit pattern in the command field which it could not decode.
7	Hitemp warning. The disk exerciser has detected a high temperature condition in a disk drive and is giving warning that the air flow may be becoming insufficient to continue to allow the heads to fly over the disk pack.

Table 4 - Enhanced Completion Codes

DFC Name	Code	Definition
NOERROR	0x0000	Nothing is wrong.
ERROR_ICS	0x1001	Command from invalid source.
ERROR_IDHA	0x1002	Device id code belongs to HA.
ERROR_RETRIES	0x1024	Too many retries.
ERROR_BSYTMO	0x1025	Device returned BUSY status for too long.
ERROR_INVCMD	0x1003	Invalid command received from computer.
ERROR_CMDNEX	0x1004	Command from computer not expected.
ERROR_NUMWRD	0x1005	Invalid number of words to transfer.
ERROR_NUMBLK	0x1006	Invalid number of blocks specified.
ERROR_NOTFIT	0x1007	The data to transfer will not fit within segment on computer.
ERROR_NOTRAM	0x1008	The data to be transferred from HA is not RAM or EPROM.
ERROR_WRTPRO	0x1009	The destination location in RAM is write-protected.
ERROR_INVPMP	0x100a	Invalid pump option in pump command.
ERROR_PMPNGO	0x100b	A pump must be going for the pump to be continued.
ERROR_NODEV	0x100c	There is no working device with the specified device id.
ERROR_INVBLK	0x100d	The block number(s) specified do not fit on specified device.
ERROR_BDMGC	0x100e	Bad MAGIC number for pumpfile.
ERROR_HDHSH	0x100f	Hash failed over pumpfile header.
ERROR_UNNZR	0x1010	Unused area of pumpfile header not zero.
ERROR_INVADR	0x1011	Data to be pumped not in valid areas.
ERROR_DTHSH	0x1012	Hash failed over pumpfile data.
ERROR_PFNST	0x1013	Pump file did not start.
ERROR_PABRT	0x1014	Pump file restart did not succeed.
ERROR_INVTV	0x1015	Invalid transfer vector address in header.
ERROR_INVFMT	0x1016	Invalid format option in format command.
ERROR_DFCTBIG	0x1017	User defect list in format command too big.
ERROR_INVEXPS	0x1018	Invalid SCSI option in explicit SCSI command.
ERROR_EXCMDTB	0x1019	Size of SCSI command in explicit SCSI command too big.
ERROR_EXCMDTS	0x101a	Size of SCSI command in explicit SCSI command too small.

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Table 4 - Enhanced Completion Codes *(continued)*

DFC Name	Code	Definition
ERROR_OPTNOT2	0x101b	SCSI option in explicit SCSI command does not allow two devices.
ERROR_DIFBUS	0x101c	Explicit SCSI command has two devices on different busses.
ERROR_RETCODE	0x101d	Unexpected return code from a function call.
ERROR_DEFCASE	0x101e	Default case reached in a switch() statement.
ERROR_VERSION	0x101f	Version in pumpfile does not match firmware.
ERROR_ETERM	0x1020	Unable to early terminate job in progress.
ERROR_OKCR	0x1021	Job completed OK, but ECC was required.
ERROR_UCDE	0x1022	Job failed; uncorrectable data (media error).
ERROR_DBO	0x1023	Disk boundary overflow (end of disk reached).
ERROR_RSVFL	0x2001	Reserve / unreserve failed.
ERROR_RSTFL	0x2002	Reset disk failed.
ERROR_SPCJF	0x2003	spc_job failed to start.
ERROR_REXFL	0x2004	Read failure during REX job.
ERROR_SJB0	0x3000	Base value of SJB failures; used by the error_sjb() function.
ERROR_ABORT	0x3001	Command was aborted.
ERROR_BRESET	0x3002	Reset was detected on the bus, and was probably not caused by this job; it may or may not have been caused by this HA.
ERROR_CKSTAT	0x3003	Check the status byte.
ERROR_CRESET	0x3004	This HA reset the bus due to an irrecoverable error while processing this job.
ERROR_SJBERR	0x3006	SJB contents error.
ERROR_MEMERR	0x3007	Memory fault.
ERROR_BADBUS	0x3008	The SCSI bus is unterminated.
ERROR_QFLUSH	0x300a	Job was flushed.
ERROR_SHORT	0x300b	Target ctrlr did not xfer all of the data.
ERROR_TIMEOUT	0x300c	Job timed out.
ERROR_CHAIN_LINKS	0x300d	Insufficient DMA Chain Links.
ERROR_LU_QNODES	0x300e	Insufficient LU Queue Nodes.
ERROR_BUS_OFFLINE	0x300f	The SCSI Bus is off-line.
ERROR_BUS_PARITY	0x3010	HA detected SCSI Bus Parity Error and terminated the job.
ERROR_SJBDEF	0x301f	Unknown sjb completion code.

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Table 4 - Enhanced Completion Codes *(continued)*

DFC Name	Code	Definition
ERROR_NOT_READY	0x3020	Target device not ready to process jobs.
ERROR_REQ_SEN	0x3021	Request Sense Command failed.
ERROR_BAD_STATE	0x3022	Invalid SCSI Job State.
ERROR_BAD_PROTOCOL	0x3023	Invalid SCSI Protocol Transition.
ERROR_SJABTFL	0x3024	Fail to send ABORT message to SCSI device.

Table 5 - Firmware-Driver Communications Register

Code	Definition
0x01	Power-on or reset received from computer.
0x02	Invalid interrupt.
0x03	Sanity timer failure.
0x04	Normal exception - integer zero divide.
0x05	Normal exception - trace trap.
0x06	Normal exception - illegal opcode.
0x07	Normal exception - reserved opcode.
0x08	Normal exception - invalid descriptor.
0x09	Normal exception - external memory.
0x0a	Normal exception - gate vector.
0x0b	Normal exception - illegal level change.
0x0c	Normal exception - reserved data type.
0x0d	Normal exception - integer overflow.
0x0e	Normal exception - privileged opcode.
0x0f	Normal exception - breakpoint.
0x10	Normal exception - privileged register.
0x11	Normal exception - unknown type.
0x12	Stack exception - stack bound.
0x13	Stack exception - stack.
0x14	Stack exception - interrupt ID fetch.
0x15	Stack exception - unknown type.
0x16	Process exception - old PCB.
0x17	Process exception - gate PCB.
0x18	Process exception - new PCB.
0x19	Process exception - unknown type.
0x1a	BIC error.
0x1b	Parity error.
0x1c	Write protect violation.
0x1d	BIC FIFO overflow / underflow.

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Table 5 - Firmware-Driver Communications Register *(continued)*

Code	Definition
0x1e	Channel 0 of HA DMAC dead.
0x1f	Channel 1 of HA DMAC dead.
0x20	Channel 2 of HA DMAC dead.
0x21	Channel 3 of HA DMAC dead.
0x22	Unexpected interrupt from DMAC (32104).
0x23	Unexpected interrupt from read / write word / blk.
0x24	Unexpected interrupt from software timer 2.
0x25	Unexpected interrupt from software timer 1.
0x26	Unexpected interrupt from SCSI bus 0.
0x27	Unexpected interrupt from SCSI bus 1.
0x28	Unexpected interrupt from data in BIC cmd reg.
0x29	Oper firm invalid major state.
0x2a	Oper firm invalid command source.
0x2b	An error was detected during boot command processing.
0x2c	FW PC transition failure; PUMPCODE initialization failure.
0x2d	dgn_fault() returned to SW Timer 2 Int Hdlr.
0x2e	dgn_fault() returned to SPC0 Int Hdlr.
0x2f	dgn_fault() returned to SPC1 Int Hdlr.
0x30	No timer nodes avail for timeout processing.
0x31	Job response is using JCISTAT interface.
0x32	Firmware to pumpcode restart failed.
0x33	ON RESET: all memory is being cleared.
0x34	ON RESET: normal memory is being cleared.
0x35	ON RESET: no memory is being cleared.
0x3F	No command from computer is being processed.
0x40	Invalid command opcode 0x00 received from computer.
0x41	Invalid command opcode 0x01 received from computer.
0x42	Invalid command opcode 0x02 received from computer.
0x43	Invalid command opcode 0x03 received from computer.
0x44	Invalid command opcode 0x04 received from computer.
0x45	Invalid command opcode 0x05 received from computer.
0x46	Invalid command opcode 0x06 received from computer.
0x47	Invalid command opcode 0x07 received from computer.
0x48	Invalid command opcode 0x08 received from computer.
0x49	Invalid command opcode 0x09 received from computer.
0x4a	Invalid command opcode 0x0a received from computer.
0x4b	Invalid command opcode 0x0b received from computer.
0x4c	Invalid command opcode 0x0c received from computer.
0x4d	Invalid command opcode 0x0d received from computer.
0x4e	Invalid command opcode 0x0e received from computer.
0x4f	Invalid command opcode 0x0f received from computer.

Table 5 - Firmware-Driver Communications Register *(continued)*

Code	Definition
0x50	Invalid command opcode 0x10 received from computer.
0x51	Invalid command opcode 0x11 received from computer.
0x52	Invalid command opcode 0x12 received from computer.
0x53	Invalid command opcode 0x13 received from computer.
0x54	Invalid command opcode 0x14 received from computer.
0x55	Invalid command opcode 0x15 received from computer.
0x56	Invalid command opcode 0x16 received from computer.
0x57	Invalid command opcode 0x17 received from computer.
0x58	Invalid command opcode 0x18 received from computer.
0x59	Invalid command opcode 0x19 received from computer.
0x5a	Invalid command opcode 0x1a received from computer.
0x5b	Invalid command opcode 0x1b received from computer.
0x5c	Invalid command opcode 0x1c received from computer.
0x5d	Invalid command opcode 0x1d received from computer.
0x5e	Invalid command opcode 0x1e received from computer.
0x5f	Invalid command opcode 0x1f received from computer.
0x60	No-op command being processed by operational firmware.
0x61	Spare command having opcode of 0x01 being processed by operational firmware.
0x62	Spare command having opcode of 0x02 being processed by operational firmware.
0x63	Version command being processed by operational firmware.
0x64	Reserve command being processed by operational firmware.
0x65	Retry command being processed by operational firmware.
0x66	Wakeup command being processed by operational firmware.
0x67	Read options command being processed by operational firmware.
0x68	Resume command being processed by operational firmware.
0x69	Reset disk command being processed by operational firmware.
0x6a	Change MHD mode command being processed by operational firmware.
0x6b	Sysgen command being processed by operational firmware.
0x6c	Change DFC mode command being processed by operational firmware.
0x6d	Boot command being processed by operational firmware.
0x6e	JCI command being processed by operational firmware.
0x6f	Abort command being processed by operational firmware.

Table 5 - Firmware-Driver Communications Register *(continued)*

Code	Definition
0x70	Read RAM command being processed by operational firmware.
0x71	Read DISK command being processed by operational firmware.
0x72	Explicit SCSI command being processed by operational firmware.
0x73	Verify command being processed by operational firmware.
0x74	Spare command having opcode of 0x14 being processed by operational firmware.
0x75	Spare command having opcode of 0x15 being processed by operational firmware.
0x76	Spare command having opcode of 0x16 being processed by operational firmware.
0x77	Spare command having opcode of 0x17 being processed by operational firmware.
0x78	Write RAM command being processed by operational firmware.
0x79	Write DISK command being processed by operational firmware.
0x7a	Pump command being processed by operational firmware.
0x7b	Format command being processed by operational firmware.
0x7c	Request device status command being processed by operational firmware.
0x7d	Diagnostic helper command being processed by operational firmware.
0x7e	Disk to disk copy command being processed by operational firmware.
0x7f	Diagnostic device command being processed by operational firmware.
0xa0	SPC:timeout for DMAC normal termination.
0xa1	SPC:timeout on DMAC flush.
0xa2	SPC:bad disconnect; non-word boundary.
0xa3	SPC:timeout for SPC FIFO to empty.
0xa4	SPC:DMAC error on READ / WRITE completion.
0xa5	SPC:DMAC error on READ flush.
0xa6	SPC:Bad time value passed to timeout().
0xc0	The pump code is running.
0xc1	A function returned that should not have.
0xc2	The dispatcher is in an invalid state.
0xc3	Invalid pump state value.
0xc4	Invalid return code.
0xc5	Invalid task major state value.
0xc6	Invalid task minor state value.
0xc7	Invalid SCSI job state.
0xc8	Invalid task ID number argument.

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Table 5 - Firmware-Driver Communications Register *(continued)*

Code	Definition
0xc9	Buffer management error.
0xca	Error occurred while initializing pump code.
0xcb	Pump state is ERROR but no error task exists.
0xcc	Task allocation failed - all tasks busy.
0xcd	DMAC should not be busy but is.
0xce	Error occurred during slow job early term.

Table 6 - Job Type Pending

Code	Definition
0	No device exists.
1	No status received from device.
2	Slow command active on device.
3	Fast command active on device.
4	Diagnostic command active on device.
5	No command active on device.
6	Secondary device for slow command.
7	Secondary device for fast command.

ID . . . . . APP-DFC-APPB-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

This appendix contains the following tables:

Table 1 - DFC Error Codes;
Table 2 - Conditional Success Codes;
Table 3 - Autonomous Response Special Completion Codes;
Table 4 - Enhanced Completion Codes;
Table 5 - Firmware Driver Communications Register (FW / PC versions 7.0 and 8.0);
Table 5a - Firmware Driver Communications Register (FW / PC version 9.0); and
Table 6 - Job Types Pending.

The data in Tables 2 and 3 are seen only by the disk file controller (DFC) driver. They are included here only to provide complete documentation on the DFC error codes.

Table 1 lists the errors which can be detected by the DFC, explains the cause of the error, and shows any corrective actions which may be required. The DFC responds to all system-requested work with job completion codes. When the DFC detects errors on those jobs, it reports with the error information shown in Table 1. In addition to running those jobs, the DFC can create its own internal work and can handle requests which do not have unique job identification codes.

All error codes are in hexadecimal.

Table 1 - DFC Error Codes

DFC Name	Code	Probable Cause and Corrective Action
CCOK	00	Job completed okay. This code implies successful completion, except in some autonomous responses. In the case of autonomous responses, the special completion code takes precedence over this code.
CCRAMWE	80,81	PIC RAM read / write boundary error. If the DFC is a SMD-DFC. The DFC was requested to write outside the address range of E00 to FFF (hexadecimal). This area is reserved for the diagnostics group and may be read and / or written by them. Addresses outside this range are reserved for the operational portion of the firmware and may not be written by anyone.

Table 1 - DFC Error Codes *(continued)*

DFC Name	Code	Probable Cause and Corrective Action
		ACTION - This error should never occur since only the diagnostics group uses the WRITERAM command.
		If the DFC is a SCSI-DFC.
		The DFC was requested to write to write-protected RAM. The DFC was requested to write to outside of allowed area of DFC RAM. The DFC was requested to read non-existent memory.
		ACTION - This error should never occur since only the diagnostics groups uses the READRAM and WRITERAM commands.
CCSEEKER	82,83	Seek error on disk.
		The DFC issued a seek to an MHD and then detected an error in the MHD. The error from the MHD indicates either that the seek did not complete within 75 milliseconds, or that the drive interpreted the address seek as beyond the last available cylinder on the disk.
		ACTION - Check the cables to the MHDs for loose connections or perform preventive maintenance.
CCNOINDX	84,85	No index detected on disk.
		The DFC could not find an 'index' mark from the disk after counting 33 sector marks.
		ACTION - Replace either the disk pack or the MHD in question.
CCERRCMD	86,87	Invalid command from the 3B.
		The DFC received a command that was not valid for the state of the DFC.
		ACTION - There is no user response for this error. Contact support group.

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Table 1 - DFC Error Codes *(continued)*

DFC Name	Code	Probable Cause and Corrective Action
CCSTATER	88,89	Device status error. There is a problem with the drive which the DFC tried to access. It could be one of the following: No unit ready - The drive is not powered up or the ID plug is missing. No on-cylinder indication - The disk drive has not been powered up or the disk pack is not spinning. Fault - There is a hard fault on the drive, *not* the disk pack, which the firmware cannot correct. **ACTION** - Correct the problem and try again.
CCUCDE	8A,8B	Uncorrectable data error. If the DFC is a SMD-DFC, the DFC detected an error in the data on the disk which is beyond 11 bits long. The data which has been read cannot be used. **ACTION** - Use the VERIFY command to determine the location of the error and re-format the track on which the error is located. The data on that track is lost forever, and the whole disk pack may have to be re-populated with data from a mate disk. If the DFC is a SCSI-DFC, the target controller was not able to read a block of data from the disk. **ACTION** - Use the VERIFY command to determine the location of the error. Place the location of the error in a defect list and re-format the disk. The whole disk pack must be re-populated with data from a mate disk.
CCDBO	8C,8D	Disk boundary overflow. An attempt to read or write beyond the last block on a disk was made. **ACTION** - Run MHD diagnostics, and check the data cables. Another possibility is that the VTOC on the disk specifies a partition which exceeds the last available cylinder on the disk pack.

Table 1 - DFC Error Codes *(continued)*

DFC Name	Code	Probable Cause and Corrective Action
CCUHSM	8E,8F	Head - sector mismatch error. The DFC read a sector off the disk and the header information, which contains the cylinder, head and sector number, did not agree with the value the DFC calculated for the head-sector number. **ACTION** - Try the job again and if it fails, reformat that area of the disk.
CCUWD	90,91	Wrong device selected. A device which the controller did not try to select answered to the poll of the devices. **ACTION** - Check the ID of the drive. For SMD, make sure that the data cable to the drive is properly placed on the backplane of the DFC. For SCSI, make sure the device is connected to the bus and the backplane of the DFC correctly.
CCUND	92,93	No device selected. There was no answer to the polling of the devices, but the DFC expected an answer. **ACTION** - Ensure that the device to be selected is powered up. For SMD, make sure that its data cable is in the right place on the DFC backplane and verify the drive has an ID plug. For SCSI, make sure the device is connected correctly to the bus and the backplane of the DFC.
CCUHP	94,95	Head positioning error. The drive was requested to go to a given cylinder, but upon reading the header from the cylinder, the cylinder number there did not match the number that the DFC had calculated it should be. There was no seek error (82, 83) detected. **ACTION** - Try the job again or reformat that area of the disk pack where the error occurred.

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Table 1 - DFC Error Codes *(continued)*

DFC Name	Code	Probable Cause and Corrective Action
CCUHSE	96,97	Head selection error. The head number read from the disk did not agree with what the DFC had calculated it should be. **ACTION** - Retry the job, or reformat the area of the disk pack where the error occurred, or check the control cable to the MHD.
CCUBPE	98,99	BIC parity error. There was a data parity error on a data transfer either to or from the BIC when the BIC was communicating with the processor. **ACTION** - The DFC cannot cause this error, only report it. The BIC and/or the DDSBS should be diagnosed.
CCUBPSE	9A,9B	BIC-PIC Soft Error. **ACTION** - Run DFC diagnostics.
CCPICE	9C,9D	PIC error. The DFC software encountered a condition which prevented it from continuing to execute. This is usually due to faulty hardware which provides incorrect information to the software. **ACTION** - Run DFC diagnostics.
CCU3BE	9E,9F	DMA setup overwrite. The BIC detects that the DMA has attempted to write to the BIC data FIFO while a setup request is pending. **ACTION** - Run DFC and DMA diagnostics.
CCUJTE	A0,A1	Early EOT from DMA. The error is detected in the BIC when the BIC receives an EOT signal from the DMA and the DFC has not set the EOT EXPECT flag in the BIC. **ACTION** - Run BIC and DMA diagnostics.

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Table 1 - DFC Error Codes *(continued)*

DFC Name	Code	Probable Cause and Corrective Action
CCUNET	A2,A3	No EOT from DMA. The error is detected in the BIC when the DFC has set the EOT EXPECT flag in the BIC and the DMA has responded to a transfer request with data rather than an EOT. **ACTION** - Run BIC and/or DMA diagnostics.
CCPUMPER	A4,A5	Error detected in pumped data. The file containing the data to be pumped is not compatible with the firmware on the SCSI-DFC or there is an error in the contents of the pump file. **ACTION** - Check that the UCB associated with the SCSI-DFC points to the pump file compatible with the SCSI-DFC.
CCUFPE	A6,A7	PSDI FIFO parity error. The parallel to serial data interface in the DFC has detected a parity error in the data stream which has been written on the disk. **ACTION** - Run DFC diagnostics.
CCUFUF	A8,A9	PSDI FIFO underflow. The PSDI has run out of data while trying to write data on the disk. This will cause a single sector on the disk to be scrambled, and a reformat of the track must be initiated. **ACTION** - Reformat the track where the error occurred and run DFC/MHD diagnostics.
CCUFOV	AA,AB	PSDI FIFO overflow. The PDSI FIFO received more data than it could hold while reading the disk. **ACTION** - Run DFC/MHD diagnostics.

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Table 1 - DFC Error Codes *(continued)*

DFC Name	Code	Probable Cause and Corrective Action
CCUPAK	AC,AD	PSDI acknowledge failure. The DFC tried to start the PSDI in a read or write mode but the PSDI failed to respond. **ACTION** - Run DFC/MHD diagnostics.
CCUFED	AE,AF	Extra data in PSDI. The DFC has finished reading what it thought was 512 data bytes from the disk, but data continued to arrive. **ACTION** - The data format on the disk is not correct and must be reformatted.
CCUDBE	B0,B1	Disk data buffer error. The DFC could not find any internal data buffers into which it could put data. This is a DFC internal error code. **ACTION** - There is no user response for this error. Contact support group.
CCMASADR	B2,B3	Main store address error. The DFC has calculated a setup of an address in 3B mainstore which will cross a page table (segment) boundary. **ACTION** - Check the coding of the program in the 3B which causes this to occur.
CCDEVTO	B4,B5	Device timed out. The DFC has tried to access a device, and the device has failed to respond in a reasonable amount of time. **ACTION** - Check for DKDRV error(s) on the ROP for the device status to determine the failure.

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Table 1 - DFC Error Codes *(continued)*

DFC Name	Code	Probable Cause and Corrective Action
CCFAIL	B8,B9	Generic failure response. An error has occurred which does not fall into any other category. Check the enhanced completion code in the "Enhanced Information Report" for more data. **ACTION** - There is no user response for this error. Contact support group.
CCUUDD	BA,BB	Uncorrectable data error in manufacturer defect table. **ACTION** - Rebuild manufacturer default table. If error persists, replace disk drive.
CCUTOV	BC,BD	Defect table overflow. **ACTION** - There is no user response for this error. Contact support group.
CCDMUNDD	BE,BF	Inappropriate command for disks that use defect management. **ACTION** - There is no user response for this error. Contact support group.
CCDMUCDT	C0,C1	Unable to create user defect table on disk. **ACTION** - There is no user response for this error. Contact support group.
CCDMTMD	C2,C3	Too many defects in the manufacturer's table. **ACTION** - There is no user response for this error. Contact support group.
CCDMEPA	C4,C5	Uncorrectable data error on area supposedly error-free. **ACTION** - There is no user response for this error. Contact support group.
CCDMIDDT	C6,C7	Invalid data in defect table. **ACTION** - There is no user response for this error. Contact support group.
CCDMIDR	C8,C9	Invalid data in RAM. **ACTION** - There is no user response for this error. Contact support group.

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Table 1 - DFC Error Codes *(continued)*

DFC Name	Code	Probable Cause and Corrective Action
CCDMTNG	CA,CB	Invalid manufacturer defect table. **ACTION** - There is no user response for this error. Contact support group.
CCDMEMA	CC,CD	Uncorrectable data error in manufacturer's defect table. **ACTION** - There is no user response for this error. Contact support group.
CCDMURDT	CE,CF	Unable to read defect table. **ACTION** - There is no user response for this error. Contact support group.
CCDMURMT	D0,D1	Unable to read manufacturer's defect table. **ACTION** - There is no user response for this error. Contact support group.
CCDMUWDT	D2,D3	Unable to write defect table. **ACTION** - There is no user response for this error. Contact support group.
CCUBPR	D4,D5	Mismatch between RAM and expected value. **ACTION** - There is no user response for this error. Contact support group.
CCBUSOFF	D6,D7	Bus drivers for selected SCSI bus turned off. The bus drivers for a SCSI bus have been turned off. A command using a device on that SCSI bus was sent to the SCSI-DFC. **ACTION** - Turn on the bus drivers before sending commands to devices on the bus. See user command RST SBUS. Verify that bus terminators were installed properly.
CCINCONC	D8,D9	Command arguments are inconsistent. The arguments passed in a command to the SCSI-DFC are not consistent. The command fails error checks. **ACTION** - There is no user response for this error. Contact support group.

Table 1 - DFC Error Codes *(continued)*

DFC Name	Code	Probable Cause and Corrective Action
CCUSTL	DA,DB	Uncorrectable data error and attempt to write temp list failed. **ACTION** - There is no user response for this error. Contact support group.
CCBVD	E0,E1	Mismatch between Firmware and Pumpcode versions. **ACTION** - There is no user response for this error. Contact support group.
CCPTO	E4,E5	Pump job timed out. **ACTION** - There is no user response for this error. Contact support group.
CCDEVERR	FA,FB	Job failed due to medium error. An error condition associated with the medium. At or beyond end of partition / medium (EOP / M). A check condition status was encountered by the DFC and the sense key indicated an error such as volume overflow or medium error. **ACTION** - Try a different medium if possible; otherwise, contact support group.
CCDEVFAIL	FC,FD	Device hardware error. Job failed due to hardware error. **ACTION** - Run diagnostics on the device.
CCDKDRV	FE,FF	Reserved for DFC driver use.

Table 2 describes the conditional success codes which are seen only by the DFC driver.

Table 2 - Conditional Success Codes

Code	Definition
02	The read disk job completed successfully but the DFC had to perform error correction to complete the job. This is an indication that the data are becoming somewhat marginal and that the disk pack may soon require reformatting.
04	In response to a VERIFY command, the DFC found that one or more sectors were not usable. The header information was incorrect or the data could not be corrected using ECC. The disk pack must be reformatted.
07	During a system phase one, the DFC was reset and could not continue a job that was in progress. This success code indicates that the job was reported to the DFC driver for appropriate recovery actions.
08	There was a fault condition detected on the disk drive, the DFC was able to correct it and proceed to successful completion.
0A	The DFC detected a seek error on the disk, but was able to correct it and complete the job successfully.
0C	Job was early terminated by the DFC because a subsequent command was received for the same target device.
0E	The pump job was successful, but the DFC is expecting more data before the pump can be completed.
12	A "check condition" status was encountered by the DFC, but the sense key did not indicate a medium or hardware error. An early warning or a filemark may have been encountered.

Table 3 explains the special completion codes, which are only applicable for autonomous response output messages. The description of an error code in Table 1 may be used to supplement Table 3 code descriptions to give a more detailed reason for job failure.

Table 3 - Autonomous Response Special Completion Code

Code	Definition
0	Special job. DFC information report. The DFC is letting the DFC driver know there is some EIR information to report.
1	On-board diagnostic error. The on-board diagnostic of the DFC has detected an error, and the DFC should be removed and diagnosed as soon as possible.
2	On-board exerciser error. The disk exerciser has detected an error. The error may be an uncorrectable data error, or a head/sector mismatch, the error should be analyzed using the DFC enhanced error data (REPT DFCE), if available.
3	SYSGEN command completed. The DFC is reporting the completion of a SYSGEN command. The job ID code for the SYSGEN command is zero by design.
4	BOOT command completed. The DFC is reporting the completion of a BOOT command. The job ID code for the BOOT command is zero by design. Since the DFC driver does not issue a BOOT command, this is regarded as an error.
5	DFC idle. This is in response to a DFC driver initiated ABORT sequence, simply indicating that the DFC was not sending any data for a particular job to the 3B using the 3B DMAC.
6	Illegal command. The DFC received a bit pattern in the command field which it could not decode.

Table 3 - Autonomous Response Special Completion Code *(continued)*

Code	Definition
7	Hitemp warning. The disk exerciser has detected a high temperature condition in a disk drive and is giving warning that the air flow may be becoming insufficient to continue to allow the heads to fly over the disk pack.

Table 4 - Enhanced Completion Codes

DFC Name	Code	Definition
NOERROR	0x0000	Nothing is wrong.
ERROR_ICS	0x1001	Command from invalid source.
ERROR_IDHA	0x1002	Device ID code belongs to HA.
ERROR_INVCMD	0x1003	Invalid command received from the 3B.
ERROR_CMDNEX	0x1004	Command from the 3B not expected.
ERROR_NUMWRD	0x1005	Invalid number of words to transfer.
ERROR_NUMBLK	0x1006	Invalid number of blocks specified.
ERROR_NOTFIT	0x1007	The data transfer will exceed the boundary of a 3B memory segment.
ERROR_NOTRAM	0x1008	The data to be transferred from HA is not RAM or EPROM.
ERROR_WRTPRO	0x1009	The destination location in RAM is write-protected.
ERROR_INVPMP	0x100a	Invalid pump option in pump command.
ERROR_PMPNGO	0x100b	A pump continue was received but a pump was not in progress.
ERROR_NODEV	0x100c	There is no working device with the specified device ID.
ERROR_INVBLK	0x100d	The block number(s) specified do not fit on specified device.
ERROR_BDMGC	0x100e	Bad MAGIC number for pumpfile.
ERROR_HDHSH	0x100f	Hash check over pumpfile header failed.
ERROR_UNNZR	0x1010	Unused area of pumpfile header not zero.
ERROR_INVADR	0x1011	Data to be pumped not in valid areas.
ERROR_DTHSH	0x1012	Hash check over pumpfile data failed.
ERROR_PFNST	0x1013	Pump file did not start.
ERROR_PABRT	0x1014	Pump file restart did not succeed.
ERROR_INVTV	0x1015	Invalid transfer vector address in pumpfile header.
ERROR_INVFMT	0x1016	Invalid format option in format command.
ERROR_DFCTBIG	0x1017	User defect list in format command too big.
ERROR_INVEXPS	0x1018	Invalid SCSI option in explicit SCSI command.
ERROR_EXCMDTB	0x1019	Size of SCSI command in explicit SCSI command too big.
ERROR_EXCMDTS	0x101a	Size of SCSI command in explicit SCSI command too small.
ERROR_OPTNOT2	0x101b	SCSI option in explicit SCSI command does not allow two devices.
ERROR_DIFBUS	0x101c	Explicit SCSI command has two devices on different busses.
ERROR_RETCODE	0x101d	Unexpected return code from a function call.
ERROR_DEFCASE	0x101e	Default case reached in a `switch()` statement.
ERROR_VERSION	0x101f	Version in pumpfile does not match firmware.
ERROR_ETERM	0x1020	Unable to early terminate job in progress.
ERROR_OKCR	0x1021	Job completed OK, but ECC was required.

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Table 4 - Enhanced Completion Codes *(continued)*

DFC Name	Code	Definition
ERROR_UCDE	0x1022	Job failed; uncorrectable data (media error).
ERROR_DBO	0x1023	Disk boundary overflow (end of disk reached).
ERROR_RETRIES	0x1024	Too many retries.
ERROR_BSYTMO	0x1025	Device returned BUSY status for too long.
ERROR_NOBUF	0x1026	Unable to obtain an HA data buffer.
ERROR_TAPEOP	0x1027	Invalid tape operation specified.
ERROR_OPTION	0x1028	Invalid option to tape operation specified.
ERROR_NOFUNC	0x1029	Function address expected but not found.
ERROR_SEEK	0x102a	Seek failed to achieve desired location. ESD SK == Extended Sense Data Sense Key
ERROR_OKCS	0x102d	ESD SK indicated no error: check status word.
ERROR_DEVERR	0x102e	ESD SK indicated a device (medium) error.
ERROR_DEVFAIL	0x102f	ESD SK indicated a device failure.
ERROR_FWWFCLR	0x1030	Flash word write failed - doing flash clear
ERROR_FWWFERA	0x1031	Flash word write failed - doing flash erase
ERROR_FWWFPGM	0x1032	Flash word write failed - doing flash program
ERROR_CMDSIZE	0x1033	Command received by 1-wide code has wrong command size
ERROR_RSVFL	0x2001	Reserve / unreserve failed.
ERROR_RSTFL	0x2002	Reset disk failed.
ERROR_SPCJF	0x2003	spc_job failed to start.
ERROR_REXFL	0x2004	Read failure during REX job.
ERROR_SJB0	0x3000	Base value of SJB failures; used by the `error_sjb()` function.
ERROR_ABORT	0x3001	Command was aborted.
ERROR_BRESET	0x3002	Reset was detected on the bus, and was probably not caused by this job; it may or may not have been caused by this HA.
ERROR_CKSTAT	0x3003	Check the status byte.
ERROR_CRESET	0x3004	This HA reset the bus due to an unrecoverable error while processing this job.
ERROR_INPROG	0x3005	Job is still in progress.
ERROR_SJBERR	0x3006	SJB contents error.
ERROR_MEMERR	0x3007	Memory fault.
ERROR_BADBUS	0x3008	The SCSI bus is unterminated.
ERROR_SELECT	0x3009	Device select failed.
ERROR_QFLUSH	0x300a	Job was flushed.
ERROR_SHORT	0x300b	Target controller did not transfer all of the data.
ERROR_TIMEOUT	0x300c	Job timed out.
ERROR_CHAIN_LINKS	0x300d	Insufficient DMA Chain Links.

Table 4 - Enhanced Completion Codes *(continued)*

DFC Name	Code	Definition
ERROR_LU_QNODES	0x300e	Insufficient LU Queue Nodes.
ERROR_BUS_OFFLINE	0x300f	The SCSI Bus is off-line.
ERROR_BUS_PARITY	0x3010	HA detected SCSI Bus Parity Error and terminated the job.
ERROR_SJBDEF	0x301f	Unknown SJB completion code.
ERROR_NOT_READY	0x3020	Target device not ready to process jobs.
ERROR_REQ_SEN	0x3021	Request Sense Command failed.
ERROR_BAD_STATE	0x3022	Invalid SCSI Job State.
ERROR_BAD_PROTOCOL	0x3023	Invalid SCSI Protocol Transition.
ERROR_SJABTFL	0x3024	Failed to send ABORT message to SCSI device.

Table 5 - Firmware-Driver Communications Register (FW / PC versions 7.0 and 8.0)

Code	Definition
0x01	Power-on or reset received from the 3B.
0x02	Invalid interrupt.
0x03	Sanity timer failure.
0x04	Normal exception - integer zero divide.
0x05	Normal exception - trace trap.
0x06	Normal exception - illegal opcode.
0x07	Normal exception - reserved opcode.
0x08	Normal exception - invalid descriptor.
0x09	Normal exception - external memory.
0x0a	Normal exception - gate vector.
0x0b	Normal exception - illegal level change.
0x0c	Normal exception - reserved data type.
0x0d	Normal exception - integer overflow.
0x0e	Normal exception - privileged opcode.
0x0f	Normal exception - breakpoint.
0x10	Normal exception - privileged register.
0x11	Normal exception - unknown type.
0x12	Stack exception - stack bound.
0x13	Stack exception - stack.
0x14	Stack exception - interrupt ID fetch.
0x15	Stack exception - unknown type.
0x16	Process exception - old PCB.
0x17	Process exception - gate PCB.
0x18	Process exception - new PCB.
0x19	Process exception - unknown type.
0x1a	BIC error.
0x1b	Parity error.

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Table 5 - Firmware-Driver Communications Register (FW / PC versions 7.0 and 8.0)

Code	Definition
0x1c	Write protect violation.
0x1d	BIC FIFO overflow / underflow.
0x1e	Channel 0 of HA DMAC dead.
0x1f	Channel 1 of HA DMAC dead.
0x20	Channel 2 of HA DMAC dead.
0x21	Channel 3 of HA DMAC dead.
0x22	Unexpected interrupt from DMAC (32104).
0x23	Unexpected interrupt from read / write word / block counter.
0x24	Unexpected interrupt from software timer 2.
0x25	Unexpected interrupt from software timer 1.
0x26	Unexpected interrupt from SCSI bus 0.
0x27	Unexpected interrupt from SCSI bus 1.
0x28	Unable to early terminate job on device.
0x29	Operational firmware invalid major state.
0x2a	Operational firmware invalid command source.
0x2b	An error was detected during boot command processing.
0x2c	Firmware to pumpcode transition failure.
0x2d	`dgn_fault()` returned to SW Timer 2 interrupt handler.
0x2e	`dgn_fault()` returned to SPC0 interrupt handler.
0x2f	`dgn_fault()` returned to SPC1 interrupt handler.
0x30	No timer nodes available for timeout processing.
0x31	Job response is using JCISTAT interface.
0x32	Firmware to pumpcode restart failed.
0x33	ON RESET: all memory is being cleared.
0x34	ON RESET: normal memory is being cleared.
0x35	ON RESET: no memory is being cleared.
0x36	Invalid switch value.
0x37	Buffer management error.
0x3F	No command from the 3B is being processed.
0x40	Invalid command received from the 3B (opcode 0x00).
0x41	Invalid command received from the 3B (opcode 0x01).
0x42	Invalid command received from the 3B (opcode 0x02).
0x43	Invalid command received from the 3B (opcode 0x03).
0x44	Invalid command received from the 3B (opcode 0x04).

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Table 5 - Firmware-Driver Communications Register *(continued)*

Code	Definition
0x45	Invalid command received from the 3B (opcode 0x05).
0x46	Invalid command received from the 3B (opcode 0x06).
0x47	Invalid command received from the 3B (opcode 0x07).
0x48	Invalid command received from the 3B (opcode 0x08).
0x49	Invalid command received from the 3B (opcode 0x09).
0x4a	Invalid command received from the 3B (opcode 0x0a).
0x4b	Invalid command received from the 3B (opcode 0x0b).
0x4c	Invalid command received from the 3B (opcode 0x0c).
0x4d	Invalid command received from the 3B (opcode 0x0d).
0x4e	Invalid command received from the 3B (opcode 0x0e).
0x4f	Invalid command received from the 3B (opcode 0x0f).
0x50	Invalid command received from the 3B (opcode 0x10).
0x51	Invalid command received from the 3B (opcode 0x11).
0x52	Invalid command received from the 3B (opcode 0x12).
0x53	Invalid command received from the 3B (opcode 0x13).
0x54	Invalid command received from the 3B (opcode 0x14).
0x55	Invalid command received from the 3B (opcode 0x15).
0x56	Invalid command received from the 3B (opcode 0x16).
0x57	Invalid command received from the 3B (opcode 0x17).
0x58	Invalid command received from the 3B (opcode 0x18).
0x59	Invalid command received from the 3B (opcode 0x19).
0x5a	Invalid command received from the 3B (opcode 0x1a).
0x5b	Invalid command received from the 3B (opcode 0x1b).
0x5c	Invalid command received from the 3B (opcode 0x1c).
0x5d	Invalid command received from the 3B (opcode 0x1d).
0x5e	Invalid command received from the 3B (opcode 0x1e).
0x5f	Invalid command received from the 3B (opcode 0x1f).
0x60	Operational firmware processing command 0x00 (no-op).
0x61	Operational firmware processing command 0x01 (spare).
0x62	Operational firmware processing command 0x02 (tapecmd).
0x63	Operational firmware processing command 0x03 (version).
0x64	Operational firmware processing command 0x04 (reserve).
0x65	Operational firmware processing command 0x05 (retry).
0x66	Operational firmware processing command 0x06 (wakeup).
0x67	Operational firmware processing command 0x07 (dfc options).
0x68	Operational firmware processing command 0x08 (resume).
0x69	Operational firmware processing command 0x09 (reset device).

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Table 5 - Firmware-Driver Communications Register *(continued)*

Code	Definition
0x6a	Operational firmware processing command 0x0a (device mode).
0x6b	Operational firmware processing command 0x0b (sysgen).
0x6c	Operational firmware processing command 0x0c (dfc mode).
0x6d	Operational firmware processing command 0x0d (boot).
0x6e	Operational firmware processing command 0x0e (jci status).
0x6f	Operational firmware processing command 0x0f (abort).
0x70	Operational firmware processing command 0x10 (read ram).
0x71	Operational firmware processing command 0x11 (read disk).
0x72	Operational firmware processing command 0x12 (explicit scsi).
0x73	Operational firmware processing command 0x13 (verify).
0x74	Operational firmware processing command 0x14 (spare).
0x75	Operational firmware processing command 0x15 (spare).
0x76	Operational firmware processing command 0x16 (spare).
0x77	Operational firmware processing command 0x17 (spare).
0x78	Operational firmware processing command 0x18 (write ram).
0x79	Operational firmware processing command 0x19 (write disk).
0x7a	Operational firmware processing command 0x1a (pump).
0x7b	Operational firmware processing command 0x1b (format).
0x7c	Operational firmware processing command 0x1c (request device status).
0x7d	Operational firmware processing command 0x1d (diag helper).
0x7e	Operational firmware processing command 0x1e (disk-to-disk copy).
0x7f	Operational firmware processing command 0x1f (diag device).
0xa0	SPC:timeout for DMAC normal termination.
0xa1	SPC:timeout on DMAC flush.
0xa2	SPC:bad disconnect; non-word boundary.
0xa3	SPC:timeout for SPC FIFO to empty.
0xa4	SPC:DMAC error on READ / WRITE completion.
0xa5	SPC:DMAC error on READ flush.
0xa6	SPC:bad time value passed to timeout().
0xb0	Timeout on DMAC normal termination (bus A).
0xb1	Timeout on DMAC normal termination (bus B).
0xb2	Timeout on DMAC flush (bus A).
0xb3	Timeout on DMAC flush (bus B).
0xb4	Timeout for SPC FIFO to empty (bus A).
0xb5	Timeout for SPC FIFO to empty (bus B).
0xb6	DMAC error on READ / WRITE completion (bus A).

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Table 5 - Firmware-Driver Communications Register *(continued)*

Code	Definition
0xb7	DMAC error on READ / WRITE completion (bus B).
0xb8	DMAC error on READ flush (bus A).
0xb9	DMAC error on READ flush (bus B).
0xc0	The pump code is running.
0xc1	A function returned that should not have.
0xc2	The dispatcher is in an invalid state.
0xc3	Invalid pump state value.
0xc4	Invalid return code.
0xc5	Invalid task major state value.
0xc6	Invalid task minor state value.
0xc7	Invalid SCSI job state.
0xc8	Invalid task ID number argument.
0xc9	Buffer management error.
0xca	Error occurred while initializing pump code.
0xcb	Pump state is ERROR but no error task exists.
0xcc	Task allocation failed - all tasks busy.
0xcd	3B DMAC should not be busy but is.
0xce	Error occurred during slow job early term.
0xcf	Error occurred during overlapped RDDSK job.
0xd0	No free task management link-list queue nodes.
0xd1	Pumpcode has failed to install a code patch.

Table 5a - Firmware-Driver Communications Register (FW / PC versions 9.0)

Code	Definition
0x01	Power-on or reset received from 3B.
0x02	Invalid interrupt.
0x03	Sanity timer failure.
0x04	4wide state - ready.
0x05	4wide state - error.
0x06	4wide state - sleeping and slow jobs.
0x07	4wide state - sleeping and no slow jobs.
0x08	4wide state - awake.
0x09	4wide state - running interrupt node task.
0x0a	4wide state - reading commands.
0x0b	4wide state - routing commands.
0x0c	4wide state - start a job on a device.
0x0d	4wide state - flush a job on a device.
0x0e	4wide state - start a job on the 3B DMA.
0x19	Other level 6 error.

Table 5a - Firmware-Driver Communications Register (FW / PC versions 9.0)

Code	Definition

Table 5a - Firmware-Driver Communications Register (FW / PC versions 9.0)

Code	Definition
0x1a	BIC error.
0x1b	Memory parity error.
0x1c	Write protect violation.
0x1d	BIC FIFO overflow / underflow.
0x1e	Channel 0 of HA DMAC dead.
0x1f	Channel 1 of HA DMAC dead.
0x20	Channel 2 of HA DMAC dead.
0x21	Channel 3 of HA DMAC dead.
0x22	Unexpected interrupt from DMAC (32104).
0x23	Unexpected interrupt from word / block transfer counter.
0x24	Unexpected interrupt from software timer 2.
0x25	Unexpected interrupt from software timer 1.
0x26	Unexpected interrupt from SCSI bus 0.
0x27	Unexpected interrupt from SCSI bus 1.
0x28	Unable to early terminate job on device.
0x29	Operational firmware invalid major state.
0x2a	Operational firmware invalid command source.
0x2b	An error was detected during boot command processing.
0x2c	Firmware to pumpcode transition failure.
0x2d	dgn_fault() returned to SW Timer 2 interrupt handler.
0x2e	dgn_fault() returned to SPC0 interrupt handler.
0x2f	dgn_fault() returned to SPC1 interrupt handler.
0x30	No timer nodes available for timeout processing.
0x31	Job response is using JCISTAT interface.
0x32	Firmware to pumpcode restart failed.
0x33	ON RESET: all memory is being cleared.
0x34	ON RESET: normal memory is being cleared.
0x35	ON RESET: no memory is being cleared.
0x36	Invalid switch value.
0x37	Buffer management error.
0x38	1-byte wide firmware is running.
0x39	FPGA programming error / failure.
0x3a	Double bus fault detected.
0x3b	Count of jobs in HA is less than zero.
0x3F	No command from the 3B is being processed.
0x40	Invalid command received from the 3B (opcode 0x00).
0x41	Invalid command received from the 3B (opcode 0x01).
0x42	Invalid command received from the 3B (opcode 0x02).
0x43	Invalid command received from the 3B (opcode 0x03).
0x44	Invalid command received from the 3B (opcode 0x04).

Table 5a - Firmware-Driver Communications Register *(continued)*

Code	Definition

Table 5a - Firmware-Driver Communications Register *(continued)*

Code	Definition
0x45	Invalid command received from the 3B (opcode 0x05).
0x46	Invalid command received from the 3B (opcode 0x06).
0x47	Invalid command received from the 3B (opcode 0x07).
0x48	Invalid command received from the 3B (opcode 0x08).
0x49	Invalid command received from the 3B (opcode 0x09).
0x4a	Invalid command received from the 3B (opcode 0x0a).
0x4b	Invalid command received from the 3B (opcode 0x0b).
0x4c	Invalid command received from the 3B (opcode 0x0c).
0x4d	Invalid command received from the 3B (opcode 0x0d).
0x4e	Invalid command received from the 3B (opcode 0x0e).
0x4f	Invalid command received from the 3B (opcode 0x0f).
0x50	Invalid command received from the 3B (opcode 0x10).
0x51	Invalid command received from the 3B (opcode 0x11).
0x52	Invalid command received from the 3B (opcode 0x12).
0x53	Invalid command received from the 3B (opcode 0x13).
0x54	Invalid command received from the 3B (opcode 0x14).
0x55	Invalid command received from the 3B (opcode 0x15).
0x56	Invalid command received from the 3B (opcode 0x16).
0x57	Invalid command received from the 3B (opcode 0x17).
0x58	Invalid command received from the 3B (opcode 0x18).
0x59	Invalid command received from the 3B (opcode 0x19).
0x5a	Invalid command received from the 3B (opcode 0x1a).
0x5b	Invalid command received from the 3B (opcode 0x1b).
0x5c	Invalid command received from the 3B (opcode 0x1c).
0x5d	Invalid command received from the 3B (opcode 0x1d).
0x5e	Invalid command received from the 3B (opcode 0x1e).
0x5f	Invalid command received from the 3B (opcode 0x1f).
0x60	Operational firmware processing command 0x00 (no-op).
0x61	Operational firmware processing command 0x01 (spare).
0x62	Operational firmware processing command 0x02 (tapecmd).
0x63	Operational firmware processing command 0x03 (version).
0x64	Operational firmware processing command 0x04 (reserve).
0x65	Operational firmware processing command 0x05 (retry).
0x66	Operational firmware processing command 0x06 (wakeup).
0x67	Operational firmware processing command 0x07 (dfc options).
0x68	Operational firmware processing command 0x08 (resume).
0x69	Operational firmware processing command 0x09 (reset device).
0x6a	Operational firmware processing command 0x0a (device mode).
0x6b	Operational firmware processing command 0x0b (sysgen).
0x6c	Operational firmware processing command 0x0c (dfc mode).
0x6d	Operational firmware processing command 0x0d (boot).
0x6e	Operational firmware processing command 0x0e (jci status).

Table 5a - Firmware-Driver Communications Register *(continued)*

Code	Definition

Table 5a - Firmware-Driver Communications Register *(continued)*

Code	Definition
0x6f	Operational firmware processing command 0x0f (abort).
0x70	Operational firmware processing command 0x10 (read ram).
0x71	Operational firmware processing command 0x11 (read disk).
0x72	Operational firmware processing command 0x12 (explicit scsi).
0x73	Operational firmware processing command 0x13 (verify).
0x74	Operational firmware processing command 0x14 (spare).
0x75	Operational firmware processing command 0x15 (spare).
0x76	Operational firmware processing command 0x16 (spare).
0x77	Operational firmware processing command 0x17 (spare).
0x78	Operational firmware processing command 0x18 (write ram).
0x79	Operational firmware processing command 0x19 (write disk).
0x7a	Operational firmware processing command 0x1a (pump).
0x7b	Operational firmware processing command 0x1b (format).
0x7c	Operational firmware processing command 0x1c (request device status).
0x7d	Operational firmware processing command 0x1d (diag helper).
0x7e	Operational firmware processing command 0x1e (disk-to-disk copy).
0x7f	Operational firmware processing command 0x1f (diag device).
0xa0	SPC:timeout for DMAC normal termination.
0xa1	SPC:timeout on DMAC flush.
0xa2	SPC:bad disconnect; non-word boundary.
0xa3	SPC:timeout for SPC FIFO to empty.
0xa4	SPC:DMAC error on READ / WRITE completion.
0xa5	SPC:DMAC error on READ flush.
0xa6	SPC:bad time value passed to timeout().
0xa7	SPC:bad function passed to timeout().
0xb0	Timeout on DMAC normal termination (bus A).
0xb1	Timeout on DMAC normal termination (bus B).
0xb2	Timeout on DMA stop (bus A).
0xb3	Timeout on DMA stop (bus B).
0xb4	Timeout for SPC FIFO to empty (bus A).
0xb5	Timeout for SPC FIFO to empty (bus B).
0xb6	DMAC error on READ / WRITE completion (bus A).
0xb7	DMAC error on READ / WRITE completion (bus B).
0xb8	DMAC error on READ flush (bus A).
0xb9	DMAC error on READ flush (bus B).
0xbc	Invalid condition.
0xc0	The 4wide Code has started.
0xc1	A function returned that should not have.
0xc2	The Dispatcher is in an invalid state.
0xc3	Invalid Pump State value.

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Table 5a - Firmware-Driver Communications Register *(continued)*

Code	Definition
0xc4	Invalid Return Code.
0xc5	Invalid Task Major State value.
0xc6	Invalid Task Minor State value.
0xc7	Invalid SCSI Job State.
0xc8	Invalid Task ID Number argument.
0xc9	Buffer Management error.
0xca	Error occurred while initializing Pump Code.
0xcb	Pump State is ERROR but no Error Task exists.
0xcc	Task allocation failed - all tasks busy.
0xcd	3B DMAC should not be busy but is.
0xce	Error occurred during slow job early term.
0xcf	Error occurred during overlapped RDDSK job.
0xd0	No free task management link-list queue nodes.
0xd1	Pumpcode has failed to install a code patch.

Table 6 - Job Type Pending

Code	Definition
	FIRMWARE / PUMPCODE VERSION 7.1
0	No device exists.
1	No status received from device.
2	Slow command active on device.
3	Fast command active on device.
4	Diagnostic command active on device.
5	No command active on device.
6	Secondary device for slow command.
7	Secondary device for fast command.
	FIRMWARE / PUMPCODE VERSION 8.0 and later
0	No device exists.
1	No status received from device.
2	No command active on device.
3	Slow command active on device.
4	Fast command active on device.
5	Diagnostic command active on device.
6	Secondary device for slow command.
7	Secondary device for fast command.

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ID . . . . . APP-DFC-APPC-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

MHD STATUS LAYOUT

BIT	DESCRIPTION
00	M bit of device 0.
01	M bit of device 1.
02	M bit of device 2.
03	M bit of device 3.
04	M bit of device 4.
05	M bit of device 5.
06	M bit of device 6.
07	M bit of device 7.
08	M bit of device 8.
09	M bit of device 9.
10	M bit of device 10.
11	M bit of device 11.
12	M bit of device 12.
13	M bit of device 13.
14	M bit of device 14.
15	M bit of device 15.
16	Device ID.
17	Device ID.
18	Device ID.
19	Device ID.

If SMD-DFC

20	MHSR - Unused.
21	MHSR - On cylinder.
22	MHSR - Unit ready.

BIT	DESCRIPTION *(continued)*
23	MHSR - High temp.
24	MHSR - Seek error.
25	MHSR - Fault.
26	MHSR - Sector mark.
27	MHSR - Index mark.

If SCSI-DFC

If bits 24-27 are 0111B, bits 20-23 contain the sense key of the extended sense data described in the DFC Appendix J, DFC-APPJ.

Otherwise, bits 20-27 contain the additional sense code of the extended sense data described in the DFC Appendix J, DFC-APPJ.

BOTH BIT	DFC's DESCRIPTION
28	Multiple disks selected.
29	Incorrect disk selected.
30	M bit of DFC.
31	M bit of device ID.

NOTES:

M bit: 0=online, 1=offline (maint).
Device ID: Internal device identification.
MHSR: Moving head disk (MHD) status register.

ID . . . . . APP-DFC-APPC-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

DEVICE STATUS WORD LAYOUT

The layout of the Device Status Word varies depending on the DFC firmware / pumpcode version, the device type, and the circumstance or event that caused the Device Status Word to be printed. All the variations of the Device Status Word layout are listed in one of the tables that follow:

Table 1 - For SCSI DFC firmware / pumpcode version 7.1, for all device types, under all circumstances.
Table 2 - For SCSI DFC firmware / pumpcode version 8.0 and later, for all device types, for failure responses.
Table 3 - For SCSI DFC firmware / pumpcode version 8.0 and later, for tape devices, for conditional success responses.
Table 4 - For SCSI DFC firmware / pumpcode version 8.0 and later, for all device types, for EIR device status.
Table 5 - For SCSI DFC firmware / pumpcode version 8.0 and later, for all device types, in response to RQDEVSTAT command.
Table 6 - For SMD DFC firmware version 6.0 and earlier, for all device types, under all circumstances.

NOTE: Mode bit: 0 = on-line, 1 = off-line (maintenance).

The following acronyms are used in this appendix:

bdid = Bus Device ID
DFC = Disk File Controller
EIR = Enhanced Information Report
LSB = Least Significant Bit
MHD = Moving head disk
MHSR = MHD status register
MSB = Most Significant Bit
SCSI = Small Computer System Interface
SMD = Storage Module Drive

Table 1 - For SCSI DFC firmware / pumpcode version 7.1,
for all device types, under all circumstances

Bits 27 through 20 provide SCSI Extended Sense Data. If bits 27-24 are 0111B respectively, then bits 23-20 contain the Sense Key; otherwise, bits 27-20 contain the Additional Sense Code. The SCSI Extended Sense Data is described in the DFC Output Appendix J, APP-DFC-APPJ.

BIT	DESCRIPTION
31	Mode bit of bdid
30	Mode bit of DFC
29	Incorrect disk selected (always 0)
28	Multiple disks selected (always 0)
27	SCSI Extended Sense Data
26	SCSI Extended Sense Data
25	SCSI Extended Sense Data
24	SCSI Extended Sense Data
23	SCSI Extended Sense Data
22	SCSI Extended Sense Data
21	SCSI Extended Sense Data
20	SCSI Extended Sense Data
19	bdid (MSB)
18	bdid
17	bdid
16	bdid (LSB)
15	Mode bit of bdid 15 (id = 7; bus = 1)
14	Mode bit of bdid 14 (id = 7; bus = 0)
13	Mode bit of bdid 13 (id = 6; bus = 1)
12	Mode bit of bdid 12 (id = 6; bus = 0)
11	Mode bit of bdid 11 (id = 5; bus = 1)
10	Mode bit of bdid 10 (id = 5; bus = 0)
09	Mode bit of bdid 9 (id = 4; bus = 1)
08	Mode bit of bdid 8 (id = 4; bus = 0)
07	Mode bit of bdid 7 (id = 3; bus = 1)
06	Mode bit of bdid 6 (id = 3; bus = 0)
05	Mode bit of bdid 5 (id = 2; bus = 1)
04	Mode bit of bdid 4 (id = 2; bus = 0)
03	Mode bit of bdid 3 (id = 1; bus = 1)
02	Mode bit of bdid 2 (id = 1; bus = 0)
01	Mode bit of bdid 1 (id = 0; bus = 1)
00	Mode bit of bdid 0 (id = 0; bus = 0)

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Table 2 - For SCSI DFC firmware / pumpcode version 8.0 and later,
for all device types, for failure responses

BITS	DESCRIPTION
31-24	SCSI Extended Sense Data - byte 0
23-16	SCSI Extended Sense Data - byte 2
15-08	SCSI Extended Sense Data - byte 12
07-00	SCSI Extended Sense Data - byte 13

See DFC Output Appendix J, APP-DFC-APPJ to interpret the SCSI Extended Sense Data.

Table 3 - For SCSI DFC firmware / pumpcode version 8.0 and later, for tape devices, for conditional success responses

BIT	DESCRIPTION
31	SCSI Extended Sense Data - byte 2 (MSB)
30	SCSI Extended Sense Data - byte 2
29	SCSI Extended Sense Data - byte 2
28	SCSI Extended Sense Data - byte 2
27	SCSI Extended Sense Data - byte 2
26	SCSI Extended Sense Data - byte 2
25	SCSI Extended Sense Data - byte 2
24	SCSI Extended Sense Data - byte 2 (LSB)
23	Not used
22	Not used
21	Not used
20	Not used
19	Residue field has overflowed
18	Sign bit for residue field
17	Residue (MSB)
16	Residue
15	Residue
14	Residue
13	Residue
12	Residue
11	Residue
10	Residue
09	Residue
08	Residue
07	Residue
06	Residue
05	Residue
04	Residue
03	Residue
02	Residue
01	Residue
00	Residue (LSB)

NOTE: Residue is the difference between the requested transfer length and the actual transfer length (residue = requested - actual).

See DFC Output Appendix J, APP-DFC-APPJ to interpret the SCSI Extended Sense Data.

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Table 4 - For SCSI DFC firmware/pumpcode version 8.0 and later, for all device types, for EIR device status

BIT	DESCRIPTION	
31	Not used	
30	Not used	
29	Not used	
28	Not used	
27	Not used	
26	Not used	
25	Not used	
24	Not used	
23	Not used	
22	Not used	
21	Not used	
20	Not used	
19	Not used	
18	Not used	
17	Not used	
16	Mode bit of DFC	
15	Mode bit of bdid 15	(id = 7; bus = 1)
14	Mode bit of bdid 14	(id = 7; bus = 0)
13	Mode bit of bdid 13	(id = 6; bus = 1)
12	Mode bit of bdid 12	(id = 6; bus = 0)
11	Mode bit of bdid 11	(id = 5; bus = 1)
10	Mode bit of bdid 10	(id = 5; bus = 0)
09	Mode bit of bdid 9	(id = 4; bus = 1)
08	Mode bit of bdid 8	(id = 4; bus = 0)
07	Mode bit of bdid 7	(id = 3; bus = 1)
06	Mode bit of bdid 6	(id = 3; bus = 0)
05	Mode bit of bdid 5	(id = 2; bus = 1)
04	Mode bit of bdid 4	(id = 2; bus = 0)
03	Mode bit of bdid 3	(id = 1; bus = 1)
02	Mode bit of bdid 2	(id = 1; bus = 0)
01	Mode bit of bdid 1	(id = 0; bus = 1)
00	Mode bit of bdid 0	(id = 0; bus = 0)

Table 5 - For SCSI DFC firmware / pumpcode version 8.0 and later, for all device types, in response to RQDEVSTAT command

BIT	DESCRIPTION	
31	Mode bit of bdid	
30	Mode bit of DFC	
29	Not used	
28	Not used	
27	Not used	
26	Not used	
25	Not used	
24	Not used	
23	Not used	
22	Not used	
21	Not used	
20	Not used	
19	bdid (MSB)	
18	bdid	
17	bdid	
16	bdid (LSB)	
15	Mode bit of bdid 15	(id = 7; bus = 1)
14	Mode bit of bdid 14	(id = 7; bus = 0)
13	Mode bit of bdid 13	(id = 6; bus = 1)
12	Mode bit of bdid 12	(id = 6; bus = 0)
11	Mode bit of bdid 11	(id = 5; bus = 1)
10	Mode bit of bdid 10	(id = 5; bus = 0)
09	Mode bit of bdid 9	(id = 4; bus = 1)
08	Mode bit of bdid 8	(id = 4; bus = 0)
07	Mode bit of bdid 7	(id = 3; bus = 1)
06	Mode bit of bdid 6	(id = 3; bus = 0)
05	Mode bit of bdid 5	(id = 2; bus = 1)
04	Mode bit of bdid 4	(id = 2; bus = 0)
03	Mode bit of bdid 3	(id = 1; bus = 1)
02	Mode bit of bdid 2	(id = 1; bus = 0)
01	Mode bit of bdid 1	(id = 0; bus = 1)
00	Mode bit of bdid 0	(id = 0; bus = 0)

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Table 6 - For SMD DFC firmware version 6.0 and earlier,
for all device types, under all circumstances

BIT	DESCRIPTION
31	Mode bit of device ID
30	Mode bit of DFC
29	Incorrect disk selected
28	Multiple disks selected
27	MHSR - index mark
26	MHSR - sector mark
25	MHSR - fault
24	MHSR - seek error
23	MHSR - high temperature
22	MHSR - unit ready
21	MHSR - on cylinder
20	MHSR - heads unloaded
19	Not used
18	Device ID (MSB)
17	Device ID
16	Device ID (LSB)
15	Not used.
14	Not used.
13	Not used.
12	Not used.
11	Not used.
10	Not used.
09	Not used.
08	Not used.
07	Mode bit of device 7
06	Mode bit of device 6
05	Mode bit of device 5
04	Mode bit of device 4
03	Mode bit of device 3
02	Mode bit of device 2
01	Mode bit of device 1
00	Mode bit of device 0

NOTE: Device ID, bits 18-16, is also known as the ID plug number.

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ID . . . . . APP-DFC-APPD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

DSCH STATUS LAYOUT

BIT	DESCRIPTION	
00	Low return code	*
01	Low return code	* high 3 bits
02	Low return code	*
03	High return code	*
04	High return code	* high 3 bits
05	High return code	*
06	Channel busy f-f	
07	I/O inhibit override f-f	
08	Sequencer error	
09	Illegal 3 out of 6 device address	
10	Command error	
11	Channel error (or of previous command)	
12	Maintenance f-f	

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ID . . . . . APP-DFC-APPE
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

D2SBS STATUS LAYOUT

BIT	DESCRIPTION
00	Device reported error
01	Overflow error
02	Sequencer error
03	Illegal D2SBS command
04	Maintenance f-f
05	Device interrupt request
06	Device setup request
07	Device transfer request

ID . . . . . APP-DFC-APPF
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

This appendix contains the following tables:

Table 1 - BIC STATUS LAYOUT (FW / PC version 8.0 and earlier);
Table 2 - BIC STATUS LAYOUT (FW / PC version 9.0);

Table 1 - BIC STATUS LAYOUT (FW / PC versions 8.0 and earlier);

BIT	DESCRIPTION	
31	Command present flag (CP)	
30	Command in progress (CIP)	
29	Data flag (0=3B, 1=PIC)	
28	Interface enabled	
27	Enable PIC data bus parity check	
26	Transfer mode (0=WRD, 1=BLK)	
25	EOD received	
24	EOD expected	
23	Setup	
22	Transfer	
21	Interrupt	
20	FIFO word count	
19	FIFO word count	
18	FIFO word count	
17	FIFO word count	
16	FIFO word count	
15	Command register overflow	*
14	Data FIFO overflow / underflow	*
13	PIC data bus parity error - hi byte	*
12	PIC data bus parity error - lo byte	*
11	PIC sanity error	*
10	PIC fatal error summary	* ERROR
09	EOD error	* FLAGS
08	PBI parity error - byte 3	*

Table 1 - BIC STATUS LAYOUT (FW / PC versions 8.0 and earlier);

BIT	DESCRIPTION	
07	PBI parity error - byte 2	*
06	PBI parity error - byte 1	*
05	PBI parity error - byte 0	*
04	DMA setup overwrite	*
03	Unit address	
02	Unit address	
01	Unit address	
00	Unit address	

Table 2 - BIC STATUS LAYOUT (FW / PC version 9.0)

BIT	DESCRIPTION
31	Command in BIC command register
30	Command in progress
29	Data ready flag (0=3B; 1=DFC)
28	Interface enabled
27	Data bus parity checks enabled
26	Transfer mode (0=word; 1=block)
25	End of data received
24	End of data expected
23	DMA setup request pending
22	DMA data transfer request pending
21	3B interrupt request pending
20	Word-in-block count
19	Word-in-block count
18	Word-in-block count
17	Word-in-block count
16	Word-in-block count
15	BIC command register overflow / underflow
14	BIC FIFO overflow / underflow
13	BIC FIFO parity error - high half
12	BIC FIFO parity error - low half
11	Sanity error
10	HA fatal error summary
09	End-of-data error

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Table 2 - BIC STATUS LAYOUT (FW / PC version 9.0)

BIT	DESCRIPTION
08	INF parity error - byte 3
07	INF parity error - byte 2
06	INF parity error - byte 1
05	INF parity error - byte 0
04	3B DMA setup overwrite error
03	Device address
02	Device address
01	Device address
00	Device address

ID . . . . . APP-DFC-APPG-A
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

REMOVE / RESTORE PROCESS ERROR CODES

NOTE: These remove / restore process error codes are in hexadecimal notation.

CODE	DESCRIPTION
1	Cannot enable message reception.
2	recvw function error
3	Cannot open spooler.
4	Cannot open ECD manager.
5	Cannot get UCB.
6	UCB not for requested unit.
7	Cannot get special device file.
8	Cannot open special device file.
9	Invalid command tag from DIAMON.
a	Cannot reset reserve bit.
b	sendw function error.
c	Cannot set `u_tnum` in UCB.
d	Request type from DIAMON not manual or auto.
e	Cannot set `u_manrqst` in UCB.
f	Cannot release special device file.
10	Abort request made via DIAMON, reasons for abort request are by manual input by recovery process

ID . . . . . APP-DFC-APPG-B
GENERIC . . . . . UNIX RTR R21.11 and R21.15
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

REMOVE/RESTORE PROCESS ERROR CODES

NOTE: These remove/restore process error codes are in hexadecimal notation.

CODE	DESCRIPTION
1	Cannot enable message reception.
2	recvw function error
3	Cannot open spooler.
4	Cannot open ECD manager.
5	Cannot get UCB.
6	UCB not for requested unit.
7	Cannot get special device file.
8	Cannot open special device file.
9	Invalid command tag from DIAMON.
a	Cannot reset reserve bit.
b	sendw function error.
c	Cannot set `u_tnum` in UCB.
d	Request type from DIAMON not manual or auto.
e	Cannot set `u_manrqst` in UCB.
f	Cannot release special device file.
10	Abort request made via DIAMON, reasons for abort request are by manual input by recovery process

ID . . . . . APP-DFC-APPH-A
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

REMOVE/RESTORE STOPPED CODES

CODE	DESCRIPTION
1	Diagnostic had failures.
2	ROS (power control switch) is off normal.
3	Diagnostic request only, not remove or restore.
4	Unit is already active.
5	Unit is already out of service.
6	Unit is off-line.
7	Unit is unavailable (forced).
8	Unit is in the `INIT` state.
9	Unit is in the `GROWTH` state.
a	Diagnostic abort, request denied.
b	Unit is essential.

ID . . . . . APP-DFC-APPH-B
GENERIC . . . . . UNIX RTR R21.11 and R21.15
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

REMOVE/RESTORE STOPPED CODES

CODE	DESCRIPTION
1	Diagnostic had failures.
2	ROS (power control switch) is off normal.
3	Diagnostic request only, not remove or restore.
4	Unit is already active.
5	Unit is already out of service.
6	Unit is off-line.
7	Unit is unavailable (forced).
8	Unit is in the `INIT` state.
9	Unit is in the `GROWTH` state.
a	Diagnostic abort, request denied.
b	Unit is essential.

ID . . . . . APP-DFC-APPI
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

FAULT CODES

NOTE: These fault codes are in hexadecimal notation.

No Fault

`00` No fault (normal)

Peripheral Faults - With Accompanying Message

`b1` Device reported error - device implicated - pio in progress
`b2` Parity divert error - device implicated - pio in progress
`b3` Channel error - device not implicated but possibly affected - pio in progress
`b4` Device reported error - device implicated
`b5` DMA addressing error - device implicated
`b6` DMA used OOR address - device implicated
`b7` Channel error - device not implicated but possibly affected

Peripheral Faults - Without Accompanying Message

`b8` Device reported error - cannot identify unit
`b9` Parity divert error - cannot identify unit
`ba` Addressing error - cannot identify unit

Configuration Manager Fault Codes - With Accompanying Message

`c3` Informative - excessive recoverable errors
`c4` Remove directive - excessive errors
`c5` Remove request - attempt restoral of oos usable unit
`c6` Limp mode - attempt restoral of oos unusable unit
`c7` Limp mode - no replacement avail
`c8` Manual remove
`c9` Unconditional remove

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Not Seen By DRIVER - No Accompanying Message

`cb` Routine soft switch - pcpeih only

Software Errors - No Accompanying Message

`d1` Memory Management - page invalid or not in memory
`d2` Memory Management - page index too large
`d3` Memory Management - segment invalid
`d4` Memory Management - segment index too large
`d5` Illegal operating system trap (OST)
`d6` Protection violation
`d7` Byte or halfword addressing violation
`d8` Instruction privilege violation
`d9` Illegal op code

System Initialization - No Accompanying Message

`e1` Substantial system recovery has occurred
`e2` System initialization critical

ID . . . . . APP-DFC-APPJ
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

EXTENDED SENSE LAYOUT

Extended sense data format								
Bit Byte	7	6	5	4	3	2	1	0
0	Valid	Error code						
1	Segment number							
2	FM	EOM	ILI	R	Sense key			
3	Information byte (MSB)							
4	Information byte							
5	Information byte							
6	Information byte (LSB)							
7	Additional sense length (n)							
8	Command-Specific Information byte (MSB)							
9	Command-Specific Information byte							
10	Command-Specific Information byte							
11	Command-Specific Information byte (LSB)							
12	Additional Sense Code							
13	Additional Sense Code Qualifier							
14	Field Replaceable Unit Code							
15	SKSV	Sense-Key Specific						

The *valid* bit indicates whether or not the information bytes contain valid data. If the valid bit is zero, the information bytes are not defined. If the valid bit is one, the information bytes contain valid information.

An *error code* value of 70 (hex) specifies that the sense data is for a current condition. An error code value of 71 (hex) specifies that the sense data is for a deferred condition. Error code values 72 (hex) to 7E (hex) are reserved. Error code value 7F (hex) is for vendor-specific sense data formats. All other error code values are undefined.

The *segment number* contains the number of the current segment descriptor if extended sense is in response to a `COPY`, `COMPARE`, or `COPY` and `VERIFY` command. Up to 256 segments are supported beginning with segment zero.

The *filemark* (FM) bit indicates that the current command has read a filemark. This bit is only used for sequential-access devices.

The *end-of-medium* (EOM) bit indicates that an end-of-medium condition (end-of-tape, beginning-of-tape, out-of-paper, etc.,) exists on a sequential-access device or printer device. For sequential access devices, this bit indicates that the unit is at or past the early-warning

end-of-tape if the direction was forward or that the command could not be completed because beginning-of-tape was encountered if the direction was reverse. Direct-access devices do not use this bit; instead, these devices report attempts to access beyond the end-of-medium as ILLEGAL REQUEST sense key [see Sense keys 0 - 7 (hex) in the sense key listing].

The *incorrect length indicator* (ILI) bit indicates that the requested logical block length did not match the logical block length of the data on the medium.

R indicates reserved.

The *sense key* field is used to describe an error or exception condition. The sense keys are described in the following listing.

Sense key	Description
0x0	NO SENSE. Indicates that there is no specific sense key information to be reported for the designated logical unit. This is the case for a successful command or a command that received a CHECK CONDITION status because one of the FM, EOM, or ILI bits is set to one.
0x1	RECOVERED ERROR. Indicates that the last command completed successfully with some recovery action performed by the target controller. Details may be determined by examining the additional sense bytes and the information bytes.
0x2	NOT READY. Indicates that the logical unit addressed cannot be accessed. Operator intervention may be required to correct this condition.
0x3	MEDIUM ERROR. Indicates that the command terminated with a nonrecovered error condition that was probably caused by a flaw in the medium or an error in the recorded data.
0x4	HARDWARE ERROR. Indicates that the target controller detected a nonrecoverable hardware failure (for example, controller failure, device failure, parity error, etc.,) while performing the command or during a self-test.
0x5	ILLEGAL REQUEST. Indicates that there was an illegal parameter in the command descriptor block or in the additional parameters supplied as data for some commands (FORMAT UNIT, SEARCH DATA, etc.). If the target controller detects an invalid parameter in the command descriptor block, then it terminates the command without altering the medium. If the target controller detects an invalid parameter in the additional parameters supplied as data, then the target controller may have already altered the medium.
0x6	UNIT ATTENTION. Indicates that the removable medium may have been changed or the target controller has been reset.

Sense key Description

`0x7` `DATA PROTECT`. Indicates that a command that reads or writes the medium was attempted on a block that is protected from this operation. The read or write operation is not performed.

`0x8` `BLANK CHECK`. Indicates that a write-once read-multiple device or a sequential-access device encountered a blank block while reading or a write-once read-multiple device encountered a nonblank block while writing.

`0x9` Vendor specific. This sense key is available for reporting vendor specific conditions.

`0xa` `COPY ABORTED`. Indicates a `COPY`, `COMPARE`, or `COPY` and `VERIFY` command was aborted due to an error condition on the source device, the destination device, or both. (See `COPY` command for additional information about this sense key.)

`0xb` `ABORTED COMMAND`. Indicates that the target controller aborted the command. The initiator may be able to recover by trying the command again.

`0xc` `EQUAL`. Indicates a `SEARCH DATA` command has satisfied an equal comparison.

`0xd` `VOLUME OVERFLOW`. Indicates that a buffered peripheral device has reached the end-of-medium and data remains in the buffer that has not been written to the medium. A `RECOVER BUFFERED DATA` command(s) may be issued to read the unwritten data from the buffer.

`0xe` `MISCOMPARE`. Indicates that the source data did not match the data read from the medium.

`0xf` This sense key is reserved.

The *information bytes* are device-type or command specific. If the valid bit is one, the information bytes contain information as follows:

1. The unsigned logical block address associated with the sense key for direct-access devices (Type 0), write-once read-multiple devices (Type 4), and read-only direct-access devices (Type 5).
2. The difference (residue) of the requested length minus the actual length in either bytes or blocks, as determined by the command for sequential-access devices (Type 1), printer devices (Type 2), and processor devices (Type 3). (Negative values are indicated by two's complement notation.)
3. The difference (residue) of the requested number of blocks minus the actual number of blocks copied or compared for the current segment descriptor of a `COPY`, `COMPARE`, or `COPY` and `VERIFY` command.

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4. For sequential-access devices operating in buffered modes 1 or 2 that detect unrecoverable write errors when unwritten data blocks, filemarks, or setmarks remain in the buffer, the value of the information field for all commands shall be:

    a. the total number of data blocks, filemarks, and setmarks in the buffer if the device is in fixed block mode (block length field of the MODE SENSE block descriptor is non-zero and the fixed bit of the WRITE command is one).

    b. the number of bytes in the buffer, including filemarks and setmarks, if the device is in variable mode (the fixed bit of the WRITE command is zero).

The *additional sense length* specifies the number of additional sense bytes to follow. If the allocation length of the command descriptor block is too small to transfer all of the additional sense bytes, the additional sense length is not adjusted to reflect the truncation.

The *command-specific information bytes* contain command specific data, peripheral device specific data, or both kinds of data that further define the nature of the CHECK CONDITION status. The COPY, COMPARE, COPY and VERIFY, and SEARCH DATA commands define a standard purpose for some of these bytes. Except as described in these commands, the additional sense bytes are vendor unique.

The *additional sense code* (byte 12) may be applied with the same code by the target controller to extended and nonextended sense formats. The additional sense code 00 (hex) indicates that the target controller does not support any additional sense code for the related sense key or does not have any appropriate additional sense to return for the CHECK CONDITION status that it created. The additional sense codes are either defined, reserved, or vendor unique. The codes are allocated to the peripheral device type returned by the INQUIRY command. Some additional sense codes may be shared among various device types.

The *additional sense code qualifier* (byte 13) indicates detailed information related to the additional sense code. The additional sense code qualifier is optional.

Field replaceable unit code is used to define a device-specific mechanism or unit that has failed. A value of zero indicates that no specific mechanism or unit has been identified to have failed or that the data is not available. The field replaceable unit code field is optional.

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ASC and ASCQ Assignments Legend

D = Direct Access Device
T = Sequential Access Device
L = Printer Device
P = Processor Device
W = Write Once Read Multiple Device
R = Read Only (CD-ROM) Device
S = Scanner Device
O = Optical Memory Device
M = Media Changer Device
C = Communication Device

Table 1
Additional Sense Code (ASC) and
Additional Sense Code Qualifier (ASCQ) Assignments

BYTE 12	BYTE 13	DTLPWRSOMC	Description
00	00	DTLPWRSOMC	No additional sense information
00	01	T	Filemark detected
00	02	T S	End-of-partition/medium detected
00	03	T	Setmark detected
00	04	T S	Beginning-of-partition/medium detected
00	05	T S	End-of-data detected
00	06	DTLPWRSOMC	I/O process terminated
00	11	R	Audio play operation in progress
00	12	R	Audio play operation paused
00	13	R	Audio play operation successfully completed
00	14	R	Audio play operation stopped due to error
00	15	R	No current audio status to return
01	00	D W O	No index/sector signal
02	00	D WR OM	No seek complete
03	00	DTL W SO	Peripheral device write fault
03	01	T	No write current
03	02	T	Excessive write errors
04	00	DTLPWRSOMC	Logical unit not ready, cause not reportable
04	01	DTLPWRSOMC	Logical unit is in process of becoming ready
04	02	DTLPWRSOMC	Logical unit not ready, initializing command required
04	03	DTLPWRSOMC	Logical unit not ready, manual intervention required
04	04	DTL O	Logical unit not ready, format in progress
05	00	DTL WRSOMC	Logical unit does not respond to selection
06	00	D WR OM	No reference position found
07	00	DTL WRSOM	Multiple peripheral devices selected
08	00	DTL WRSOMC	Logical unit communication failure

Table 1
Additional Sense Code (ASC) and
Additional Sense Code Qualifier (ASCQ) Assignments (*continued*)

BYTE 12	BYTE 13	DTLPWRSOMC	Description
08	01	DTL WRSOMC	Logical unit communication time-out
08	02	DTL WRSOMC	Logical unit communication parity error
09	00	DT WR O	Track following error
09	01	WR O	Tracking servo failure
09	02	WR O	Focus servo failure
09	03	WR O	Spindle servo failure
0A	00	DTLPWRSOMC	Error log overflow
0B	00		
0C	00	T S	Write error
0C	01	D W O	Write error recovered with auto reallocation
0C	02	D W O	Write error - auto reallocation failed
0D	00		
0E	00		
0F	00		
10	00	D W O	ID CRC or ECC error
11	00	DT WRSO	Unrecovered read error
11	01	DT W SO	Read retries exhausted
11	02	DT W SO	Error too long to correct
11	03	DT W SO	Multiple read errors
11	04	D W O	Unrecovered read error - auto reallocate failed
11	05	WR O	L-EC uncorrectable error
11	06	WR O	CIRC unrecovered error
11	07	W O	Data resynchronization error
11	08	T	Incomplete block read
11	09	T	No gap found
11	0A	DT O	Miscorrected error
11	0B	D W O	Unrecovered read error - recommend reassignment
11	0C	D W O	Unrecovered read error - recommend rewrite the data
12	00	D W O	Address mark not found for ID field
13	00	D W O	Address mark not found for data field
14	00	DTL WRSO	Recorded entity not found
14	01	DT WR O	Record not found
14	02	T	Filemark or setmark not found
14	03	T	End-of-data not found
14	04	T	Block sequence error
15	00	DTL WRSOM	Random positioning error
15	01	DTL WRSOM	Mechanical positioning error
15	02	DT WR O	Positioning error detected by read of medium
16	00	D W O	Data synchronization mark error
17	00	DT WRSO	Recovered data with no error correction applied
17	01	DT WRSO	Recovered data with retries

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Table 1
Additional Sense Code (ASC) and
Additional Sense Code Qualifier (ASCQ) Assignments (*continued*)

BYTE 12	BYTE 13	DTLPWRSOMC	Description
17	02	DT WR O	Recovered data with positive head offset
17	03	DT WR O	Recovered data with negative head offset
17	04	WR O	Recovered data with retries and/or CIRC applied
17	05	D WR O	Recovered data using previous sector ID
17	06	D W O	Recovered data without ECC – data auto-reallocated
17	07	D W O	Recovered data without ECC – recommend reassignment
17	08	D W O	Recovered data without ECC – recommend rewrite
18	00	DT WR O	Recovered data with error correction applied
18	01	D WR O	Recovered data with error correction and retries applied
18	02	D WR O	Recovered data – data auto reallocated
18	03	R	Recovered data with CIRC
18	04	R	Recovered data with LEC
18	05	D WR O	Recovered data – recommend reassignment
18	06	D WR O	Recovered data – recommend rewrite
19	00	D O	Defect list error
19	01	D O	Defect list not available
19	02	D O	Defect list error in primary list
19	03	D O	Defect list error in grown list
1A	00	DTLPWRSOMC	Parameter list length error
1B	00	DTLPWRSOMC	Synchronous data transfer error
1C	00	D O	Defect list not found
1C	01	D O	Primary defect list not found
1C	02	D O	Grown defect list not found
1D	00	D W O	Miscompare during verify operation
1E	00	D W O	Recovered ID with ECC correction
1F	00		
20	00	DTLPWRSOMC	Invalid command operation code
21	00	DT WR OM	Logical block address out of range
21	01	M	Invalid element address
22	00	D	Illegal function (should use 20 00, 24 00, or 26 00)
23	00		
24	00	DTLPWRSOMC	Invalid field in CDB
25	00	DTLPWRSOMC	Logical unit not supported
26	00	DTLPWRSOMC	Invalid field in parameter list
26	01	DTLPWRSOMC	Parameter not supported
26	02	DTLPWRSOMC	Parameter value invalid
26	03	DTLPWRSOMC	Threshold parameters not supported
27	00	DT W O	Write protected
28	00	DTLPWRSOMC	Not ready to ready transition (medium may have changed)
28	01	M	Import or export element accessed
29	00	DTLPWRSOMC	Power on, reset, or bus device reset occurred

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Table 1
Additional Sense Code (ASC) and
Additional Sense Code Qualifier (ASCQ) Assignments (*continued*)

BYTE 12	BYTE 13	DTLPWRSOMC	Description
2A	00	DTL WRSOMC	Parameters changed
2A	01	DTL WRSOMC	Mode parameters changed
2A	02	DTL WRSOMC	Log parameters changed
2B	00	DTLPWRSO C	Copy cannot execute since host cannot disconnect
2C	00	DTLPWRSOMC	Command sequence error
2C	01	S	Too many windows specified
2C	02	S	Invalid combination of windows specified
2D	00	T	Overwrite error on update in place
2E	00		
2F	00	DTLPWRSOMC	Commands cleared by another initiator
30	00	DT WR OM	Incompatible medium installed
30	01	DT WR O	Cannot read medium – unknown format
30	02	DT WR O	Cannot read medium – incompatible format
30	03	DT	Cleaning cartridge installed
31	00	DT W O	Medium format corrupted
31	01	D L O	Format command failed
32	00	D W O	No defect spare location available
32	01	D W O	Defect list update failure
33	00	T	Tape length error
34	00		
35	00		
36	00	L	Ribbon, ink, or toner failure
37	00	DTL WRSOMC	Rounded parameter
38	00		
39	00	DTL WRSOMC	Saving parameters not supported
3A	00	DTL WRSOM	Medium not present
3B	00	TL	Sequential positioning error
3B	01	T	Tape position error at beginning-of-medium
3B	02	T	Tape position error at end-of-medium
3B	03	L	Tape or electronic vertical forms unit not ready
3B	04	L	Slew failure
3B	05	L	Paper jam
3B	06	L	Failed to sense top-of-form
3B	07	L	Failed to sense bottom-of-form
3B	08	T	Reposition error
3B	09	S	Read past end-of-medium
3B	0A	S	Read past beginning-of-medium
3B	0B	S	Position past end-of-medium
3B	0C	S	Position past beginning-of-medium
3B	0D	M	Medium destination element full
3B	0E	M	Medium source element empty

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Table 1
Additional Sense Code (ASC) and
Additional Sense Code Qualifier (ASCQ) Assignments (*continued*)

BYTE 12	BYTE 13	DTLPWRSOMC	Description
3C	00		
3D	00	DTLPWRSOMC	Invalid bits in identify message
3E	00	DTLPWRSOMC	Logical unit has not self-configured yet
3F	00	DTLPWRSOMC	Target operating conditions have changed
3F	01	DTLPWRSOMC	Microcode has been changed
3F	02	DTLPWRSOMC	Changed operating definition
3F	03	DTLPWRSOMC	Inquiry data has changed
40	00	D	RAM failure (should use 40 NN)
40	NN	DTLPWRSOMC	Diagnostic failure on component NN (0x80-0xff)
41	00	D	Data path failure (should use 40 NN)
42	00	D	Power-on or self-test failure (should use 40 NN)
43	00	DTLPWRSOMC	Message error
44	00	DTLPWRSOMC	Internal target failure
45	00	DTLPWRSOMC	Select or reselect failure
46	00	DTLPWRSOMC	Unsuccessful soft reset
47	00	DTLPWRSOMC	SCSI parity error
48	00	DTLPWRSOMC	Initiator detected error message received
49	00	DTLPWRSOMC	Invalid message error
4A	00	DTLPWRSOMC	Command phase error
4B	00	DTLPWRSOMC	Data phase error
4C	00	DTLPWRSOMC	Logical unit failed self-configuration
4D	00		
4E	00	DTLPWRSOMC	Overlapped commands attempted
4F	00		
50	00	T	Write append error
50	01	T	Write append position error
50	02	T	Position error related to timing
51	00	T O	Erase failure
52	00	T	Cartridge fault
53	00	DTL WRSOM	Media load or eject failed
53	01	T	Unload tape failure
53	02	DT WR OM	Medium removal prevented
54	00	P	SCSI to host system interface failure
55	00	P	System resource failure
56	00		
57	00	R	Unable to recover table-of-contents
58	00	O	Generation does not exist
59	00	O	Updated block read
5A	00	DTLPWRSOM	Operator request or state change input (unspecified)
5A	01	DT WR OM	Operator medium removal request
5A	02	DT W O	Operator selected write protect

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Table 1
Additional Sense Code (ASC) and
Additional Sense Code Qualifier (ASCQ) Assignments (*continued*)

BYTE 12	BYTE 13	DTLPWRSOMC	Description
5A	03	DT W O	Operator selected write permit
5B	00	DTLPWRSOM	Log exception
5B	01	DTLPWRSOM	Threshold condition met
5B	02	DTLPWRSOM	Log counter at maximum
5B	03	DTLPWRSOM	Log list codes exhausted
5C	00	D O	RPL status change
5C	01	D O	Spindles synchronized
5C	02	D O	Spindles not synchronized
5D	00		
5E	00		
5F	00		
60	00	S	Lamp failure
61	00	S	Video acquisition error
61	01	S	Unable to acquire video
61	02	S	Out of focus
62	00	S	Scan head positioning error
63	00	R	End of user area encountered on this track
64	00	R	Illegal mode for this track
65	00		
66	00		
67	00		
68	00		
69	00		
6A	00		
6B	00		
6C	00		
6D	00		
6E	00		
6F	00		
70	00		
71	00		
72	00		
73	00		
74	00		
75	00		
76	00		
77	00		
78	00		
79	00		
7A	00		
7B	00		

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Table 1
Additional Sense Code (ASC) and
Additional Sense Code Qualifier (ASCQ) Assignments (*continued*)

BYTE			
12	13	DTLPWRSOMC	Description
7C	00		

Table 1
Additional Sense Code (ASC) and
Additional Sense Code Qualifier (ASCQ) Assignments (*continued*)

BYTE 12	BYTE 13	DTLPWRSOMC	Description
7D	00		
7E	00		
7F	00		
--	--	----------	----------
80	xx		through FF xx are vendor specific
xx	80		through xx FF are vendor specific qualification of standard ASC.

ID . . . . . APP-DFC-APPK
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

SCSI JOB BLOCK STRUCTURE LAYOUT

```
AABBCCDD EEEEEEEE FFFFFFFF GGGGGGGG HHHHHHHH IIIIIIII JJJJJJJJ KK--LLLL
MMMMMMMM NNNNNNNN OOOOOOOO PPPPPPPP
```

General notations:

`in` — Input, that is, provided by firmware / pumpcode.

`out` — Output, that is, returned by small computer system interface (SCSI) protocol controller (SPC) code.

`res` — Reserved for SPC code usage.

Device ID information:

`A` — SCSI bus number: 0 or 1.

`B` — SCSI target controller number: 0 - 7.

General job information:

`C` `in` — Job state - initialized by `spc_job()`, but updated by firmware / pumpcode.

- `0` Initial state of job when `spc_job()` returns.
- `1` Job has been retried once.
- `2` SCSI Request Sense command has been issued.
- `3` Job has been retried twice.
- `4` Job has completed successfully.
- `5` Job has failed.

`D` `out` — Miscellaneous flags - used by the SPC to convey additional information to firmware / pumpcode.

- `1` One or more RESTORE POINTERS messages received after host adapter (HA) direct memory access (DMA) was begun for this job.

`E` `in` — Job ID code (optional).

`F` `in` — Function to be performed:

0 => SCSI command.
!0 => Function code.

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G in — Time limit for job, in milliseconds:

!0 => Time limit.
0 => No time limit.

H out — Job completion code:

- 0x00 Job completed normally.
- 0x01 Command was aborted.
- 0x02 Reset was detected on the bus and was probably not caused by this job; it may or may not have been caused by this HA.
- 0x03 Check the status byte.
- 0x04 This HA reset the bus due to an unrecoverable error while processing this job.
- 0x05 Job in progress.
- 0x06 SCSI job block (SJB) contents error.
- 0x07 Memory fault.
- 0x08 The bus appears to be unterminated.
- 0x09 The SCSI bus device select failed.
- 0x0a Job was flushed.
- 0x0b Target controller did not transfer all of the data.
- 0x0c Job timed out.
- 0x0d Insufficient DMA chain links.
- 0x0e Insufficient logical unit (LU) queue nodes.
- 0x0f The SCSI bus is off-line.
- 0x10 HA detected SCSI bus parity error and terminated the job.

I res — Value returned from function timeout().

SCSI command information:

J out — Bytes of data not transferred.

K out — Target SCSI status byte.

- 0x00 Successful command completion.
- 0x02 Check condition.
- 0x04 Condition met good status.
- 0x08 Busy.
- 0x10 Intermediate good status.
- 0x14 Intermediate condition met good.

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`0x18` Reservation conflict.

`0x22` Command terminated.

`0x28` Queue full.

`0xff` Status not available.

`L` `in` — Mode flags for current job.

`0x00` Non-read command.

`0x01` Read command.

`0x02` External chaining.

`0x04` Read overlap is active.

`0x80` Immediate command.

`M` `in` — Pointer to SCSI command descriptor block (CDB).

`N` `in` — Size of SCSI CDB in bytes.

`O` `in` — Pointer to HA data buffer, or pointer to memory or pointer to 32104 DMA chain control node.

`P` `in` — Byte count of data to transfer over the SCSI bus.

ID . . . . . APP-DFC-APPL
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

INQUIRY LAYOUT

Standard INQUIRY Data Format								
Bit Byte	7	6	5	4	3	2	1	0
0	Peripheral Qualifier			Peripheral device type				
1	RMB	Device-type qualifier						
2	ISO version		ECMA version			ANSI version		
3	AENC	TrmIOP	Reserved			Response data format		
4	Additional length (n - 4)							
5	Reserved							
6	Reserved							
7	RelAdr	WBus32	WBus16	Sync	Linked	Reserved	CmdQue	SftRe
8 - 15	Vendor identification (in ASCII)							
16 - 31	Product identification (in ASCII)							
32 - 35	Product revision level (in ASCII)							
36 - 55	Vendor Specific							
56 - 95	Reserved							
Vendor-Specific Parameters								
96 - n	Vendor Specific							

The *peripheral qualifier* and *peripheral device-type* fields identify the device currently connected to the logical unit. If the target is not capable of supporting a device on this logical unit, this field will be set to 7F hex (peripheral qualifier set to 011 binary and peripheral device type set to 1F hex).

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The peripheral qualifier is defined in the following table.

Peripheral Qualifier	
Qualifier (binary)	Description
000	The specified peripheral device is currently connected to this logical unit. If the target cannot determine whether or not a physical device is currently connected, it will also use this peripheral qualifier when returning the INQUIRY data. Note: This peripheral qualifier does not imply that the device is ready for access by the initiator.
001	The target is capable of supporting the specified peripheral device type on this logical unit; however, the physical device is not currently connected to this logical unit.
010	Reserved
011	The target is not capable of supporting a physical device on this logical unit. For this peripheral qualifier, the peripheral device type will be set to 1Fh to provide compatibility with previous versions of SCSI. All other peripheral device type values are reserved for this peripheral qualifier.
1XX	Vendor Specific

The peripheral device types are shown in the following table.

Peripheral Device Type Table	
Code (hex)	Description
00	Direct-access device (e.g., magnetic disk)
01	Sequential-access device (e.g., magnetic tape)
02	Printer device
03	Processor device
04	Write-once device (e.g., some optical disks)
05	CD-ROM device
06	Scanner device
07	Optical memory device (e.g., some optical disks)
08	Medium Changer device (e.g., jukeboxes)
09	Communications device
0A - 0B	Defined by ASC IT8 (Graphic Arts Pre-Press Devices)
0C - 1E	Reserved
1F	Unknown or no device type

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A *removable medium* (RMB) bit of zero indicates that the medium is not removable. An RMB bit of one indicates that the medium is removable.

The *device-type modifier* field was defined in SCSI-1 to permit vendor-specific qualification codes of the device type. This field contains a 7-bit user-specified code, which may be set with switches or by some other means by the target controller or peripheral device. SCSI controllers that do not support this feature return all zero bits. This feature allows each user to assign unique codes to each specific type of peripheral device that is supported on the system being used. These codes may then be used by self-configuring software to determine what specific peripheral device is at each logical unit number. This is especially valuable for systems that support multiple types of removable medium.

The usage of nonzero code values in the *international standards organization (ISO) version* and *European computer manufacturers (ECMA) version* fields are defined by the ISO and the ECMA, respectively. A zero code value in these fields indicates that the target controller does not claim compliance to the ISO or ECMA versions of SCSI. Note that it is possible to claim compliance to more than one of these SCSI standards.

The *ANSI version* indicates the implemented version of the ANSI standard and is defined in the following ANSI version listing.

ANSI-Approved Version	
Code (hex)	Description
0	The device might or might not comply to an ANSI-approved standard.
1	The device complies to ANSI X3.131-1986 (SCSI-1).
2	This code is reserved to designate the SCSI-2 standard upon approval by ANSI.
3 - 7	Reserved.

The asynchronous event notification capability (AENC) bit indicates that the device supports the asynchronous event notification capability:

1. Processor device-type definition: An AENC bit of one indicates that the processor device is capable of accepting asynchronous event notifications. An AENC bit of zero indicates that the processor device does not support asynchronous event notifications.
2. All other device types: This bit is reserved.

A terminate I/O process (TrmIOP) bit of one indicates that the device supports the TERMINATE I/O PROCESS message. A value of zero indicates that the device does not support the TERMINATE I/O PROCESS message.

The response data formats are given in the response data format table that follows. Target controllers conforming to at least conformance level 2 and conforming to ANSI X3.131-1986 (SCSI-1) set the common command set code (1 hex) in the response data format field.

Response Data Format Table	
Code (hex)	Description
0	SCSI-1
1	Common Command Set (CCS)
2	SCSI-2
3 - F	Reserved

The *additional length* byte specifies the length in bytes of the parameters. If the allocation length of the command descriptor block is too small to transfer all of the parameters, the additional length is not adjusted to reflect the truncation.

A *relative addressing* (RelAdr) bit of one indicates that the device supports the relative addressing mode for this logical unit. If this bit is set to one, the linked command (Linked) bit will also be set to one since relative addressing can only be used with linked commands. A Rel Adr bit of zero indicates the device does not support relative addressing for this logical unit.

A *wide bus 32* (WBus32) bit of one indicates that the device supports 32-bit wide data transfers. A value of zero indicates that the device does not support 32-bit wide data transfers.

A *wide bus 16* (WBus16) bit of one indicates that the device supports 16-bit wide data transfers. A value of zero indicates that the device does not support 16-bit wide data transfers.

If the values of both the WBus16 and WBus32 bits are zero, the device only supports 8-bit wide data transfers.

A *synchronous transfer* (Sync) bit of one indicates that the device supports synchronous data transfer. A value of zero indicates that the device does not support synchronous data transfer.

A *linked command* (Linked) bit of one indicates that the device supports linked commands for this logical unit. A value of zero indicates the device does not support linked commands for this logical unit.

A *command queuing* (CmdQue) bit of one indicates that the device supports tagged command queuing for this logical unit. A value of zero indicates the device does not support tagged command queuing for this logical unit.

A *soft reset* (SftRe) bit of zero indicates that the device responds to the RESET condition with the hard RESET alternative. A SftRe bit of one indicates that the device responds to the RESET condition with the soft RESET alternative.

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SCSI devices that implement the hard reset alternative, upon detection of the reset condition, will:

1. Clear all I/O processes including queued I/O processes.
2. Release all SCSI device reservations.
3. Return any SCSI device operating modes to their appropriate initial conditions, similar to those conditions that would be found after a normal power-on reset. MODE SELECT conditions will be restored to their last saved values if saved values have been established. MODE SELECT conditions for which no values have been saved will be returned to their default values.

SCSI devices that implement the soft reset alternative, upon detection of the reset condition, will:

1. Attempt to complete any I/O processes which have not completed and that were fully identified.
2. Preserve all SCSI device reservations.
3. Preserve any SCSI device operating modes (MODE SELECT, PREVENT/ALLOW MEDIUM REMOVAL commands, etc.).
4. Preserve all the information required to continue normal dispatching of I/O processes queued prior to the reset condition.

ASCII data fields contain only graphic codes (i.e., code values 20 hex through 7E hex). Left-aligned fields will place any unused bytes at the end of the field (highest offset) and the unused bytes are filled with the space characters (20 hex). Right-aligned fields will place any unused bytes at the start of the field (lowest offset) and the unused bytes will be filled with space characters (20 hex).

The *vendor identification* field contains eight bytes of ASCII data identifying the vendor of the product. The data is left-aligned within this field.

The *product identification* field contains sixteen bytes of ASCII data as defined by the vendor. The data is left-aligned within this field.

The *product revision level* field contains four bytes of ASCII data as defined by the vendor. The data is left-aligned within this field.

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ID . . . . . APP-DFC-APPM
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

HOST ADAPTER COMMAND DEFINITIONS

This appendix provides the definitions of the commands sent from the 3B computer to the host adapter (HA). The commands are either one word or four words in size. If the command is a one-word command, the last three words in the output are unknown and undefined. Only those words which are used are defined in this document.

The leftmost five bits of the first word of each command is the command operation code (opcode). Apply the following bit-field template to the first word of the command to determine the command opcode, then find that opcode in the following listing to decipher the remainder of the command.

```
aaaa axxx xxxx xxxx xxxx xxxx xxxx xxxx
```

a = Operation code (Opcode).

x = Command specific.

`0x0 (0)` — `no-op` command.

```
aaaa abbb bbbb bbbb bbbb bbbb bbbb bccc
```

a = Opcode.

b = Must be all zeros.

c = Programmed Input / Output (PIO) destination bits.

`0x1 (1)` — `invalid` command.

`0x2 (2)` — `tape` command.

```
aaaa abbb bbbb cccc dddd deee eeee exxx
ffff ffff ffff ffff ffff ffff ffff ffff
gghh hhhh hhhh hhhi iiii iiii iiii iiii
jjjj jjjj jjjj jjjj jjjj jjjj jjjj jjjj
```

a = Opcode.

b = Tape command operation.

`0x1` — Erase medium.
`0x2` — Load - enable tape unit.
`0x3` — Locate.
`0x4` — Read position.
`0x5` — Read reverse.
`0x6` — Read forward.
`0x7` — Rewind.

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`0x8` — Space forward.
`0x9` — Space reverse.
`0xa` — Tape setup options.
`0xb` — Set tape speed.
`0xc` — Unload - disable tape unit.
`0xd` — Verify.
`0xe` — Write.
`0xf` — Write filemarks.
`0x10` — Set variable record mode.
`0x11` — Set fixed record mode.

c = Small computer system interface (SCSI) bus and device ID.

d = Tape options (depends on the tape operation).

e = Job ID assigned by the 3B.

x = Not used and undefined.

f = Block number (depends on the tape operation).

Read	Tape block number.
Write	Tape block number.
Write filemarks	Number of filemarks.
Tape setup	Tape blocking factor.
Space	Number of entities to space over.

g = Number of bytes to ignore.

h = Job time limit in seconds.

i = Byte offset into the 3B segment.

j = 3B transfer length in words for read or write.

`0x3 (3)` — `version` command.

```
aaaa abbb bbbb bbbb bbbb cddd dddd deee
```

a = Opcode.

b = Data address in 3B mainstore.

c = Version requested.

`0` — Request for firmware version number.
`1` — Request for pumpcode version number.

d = Job ID assigned by the 3B.

e = PIO destination bits.

`0x4 (4)` — `reserve/unreserve` command.

`aaaa abxx xxxx cccc xxxx xddd dddd deee`

a = Opcode.

b = Type of command.

`0` — Unreserve.
`1` — Reserve.

x = Not used and undefined.

c = SCSI bus and device ID.

d = Job ID assigned by the 3B.

e = PIO destination bits.

`0x5 (5)` — `retry` command.

`aaaa axxx xxxx xxxx xxxx xxxx xxxx xbbb`

a = Opcode.

x = Not used and undefined.

b = PIO destination bits.

`0x6 (6)` — `wakeup` command.

`aaaa axxx xxxx xxxx xxxx xxxx xxxx xbbb`

a = Opcode.

x = Not used and undefined.

b = PIO destination bits.

`0x7 (7)` — `change DFC options` command.

`aaaa axxx xxxx bbbb xxxx xccc cccc cddd`

a = Opcode.

x = Not used and undefined.

b = SCSI bus and device ID.

c = Job ID assigned by the 3B.

d = PIO destination bits.

`0x8 (8)` — `resume` command.

`aaaa axxx xxxx xxxx xxxx xxxx xxxx xbbb`

a = Opcode.

x = Not used and undefined.

b = PIO destination bits.

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`0x9 (9)` — `reset device` command.

`aaaa axxx xxxx bbbb xxxx xccc cccc cddd`

a = Opcode.

x = Not used and undefined.

b = SCSI bus and device ID.

c = Job ID assigned by the 3B.

d = PIO destination bits.

`0xa (10)` — `change device mode` command.

`aaaa abxx xxxx cccc xxxx xddd dddd deee`

a = Opcode.

b = New maintenance mode.

`0` — Device is ONLINE.
`1` — Device is OFFLINE.

x = Not used and undefined.

c = SCSI bus and device ID.

d = Job ID assigned by the 3B.

e = PIO destination bits.

`0xb (11)` — `sysgen` command.

`aaaa axxx xxxx bbbb bbbb bbbb bbbb bccc`

a = Opcode.

x = Not used and undefined.

b = Sysgen data block addr.

c = PIO destination bits.

`0xc (12)` — `change DFC mode` command.

`aaaa abxx xcde ffff xxxx xggg gggg ghhh`

a = Opcode.

b = New maintenance mode.

`0` — Device is ONLINE.
`1` — Device is OFFLINE.

x = Not used and undefined.

c = Select DFC.

`0` — Device is not selected.
`1` — Device is selected.

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d = Select SCSI bus 1.

`0` — Bus is not selected.
`1` — Bus is selected.

e = Select SCSI bus 0.

`0` — Bus is not selected.
`1` — Bus is selected.

f = SCSI bus and device ID.

g = Job ID assigned by the 3B.

h = PIO destination bits.

NOTE: If *c*, *d*, and *e* are all zero, all three are selected.

`0xd (13)` — `boot` command.

```
aaaa abcc cccc dddd eeee eeee eeee efff
```

a = Opcode.

b = Retry boot job.

c = Number of disk blocks to read.

d = SCSI bus and device ID.

e = Starting disk block number.

f = PIO destination bits.

`0xe (14)` — `jcistat` command.

```
aaaa axxx xxxx xxxx bxxx xxxx xxxx xccc
```

a = Opcode.

x = Not used and undefined.

b = More jobs in submit queue.

`0` — No jobs in submit queue.
`1` — At least one job in submit queue.

c = PIO destination bits.

`0xf (15)` — `abort` command.

```
aaaa abxx xxxx xxxx xxxx xxxx xxxx xccc
```

a = Opcode.

b = Option.

x = Not used and undefined.

c = PIO destination bits.

`0x10 (16)` — `read DFC RAM` command.

```
aaaa axxx xxxx bbbb xxxx xccc cccc cxxx
dddd dddd dddd dddd dddd dddd dddd dddd
xxxx xxxx xxxx xxxe eeee eeee eeee eeee
ffff ffff ffff ffff ffff ffff ffff ffff
```

a = Opcode.

x = Not used and undefined.

b = SCSI bus and device ID.

c = Job ID assigned by the 3B.

d = HA Random Access Memory (RAM) address.

e = Data address in 3B mainstore.

f = Number of words to be transferred.

`0x11 (17)` — `read disk` command.

```
aaaa abxx xxxx cccc xxxx xddd dddd dxxx
eeee eeee eeee eeee eeee eeee eeee eeee
xxxx xxxx xxxx xxxf ffff ffff ffff ffff
gggg gggg gggg gggg gggg gggg gggg gggg
```

a = Opcode.

b = Retry on job failure.

x = Not used and undefined.

c = SCSI bus and device ID.

d = Job ID assigned by the 3B.

e = Starting disk block number.

f = Data address in 3B mainstore.

g = Number of words to be transferred.

`0x12 (18)` — `explicit SCSI` command.

```
aaaa abcd dddd eeee fggg ghhh hhhh hiii
jjjj jjjj jjjj jjjk kkkk kkkk kkkk kkkk
llll llll llll lllm mmmm mmmm mmmm mmmm
nnnn nnnn nnnn nnno oooo oooo oooo oooo
```

a = Opcode.

b = Indicates a slow SCSI command.

c = Command is done with minimum error checks and no recovery.

`0` — Do not just do the command.
`1` — Just do the command.

d = SCSI command options.

`0` — No data to transfer to or from SCSI device.
`1` — Data is transferred to SCSI device.
`2` — Data is transferred from SCSI device.
`3` — Send message to reset SCSI bus 0.
`4` — Send message to reset SCSI bus 1.
`5` — Send "abort" message to device.
`6` — Send "reset device" message to device.

e = SCSI bus and device ID.

f = Device may use two SCSI devices.

`0` — Command does not use two devices.
`1` — Command uses two devices.

g = Second SCSI bus and device ID.

h = Job ID assigned by the 3B.

i = Job time limit in minutes for slow jobs.

j = Size of SCSI command in bytes.

k = 3B memory address of SCSI command.

l = Size of response in bytes.

m = 3B memory address of response to SCSI command.

n = Number of bytes of data to be transferred.

o = 3B memory address of data to be transferred.

`0x13 (19)` — `verify disk` command.

```
aaaa axxx xxxx bbbb xxxx xccc cccc cxxx
dddd dddd dddd dddd dddd dddd dddd dddd
xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
xxxx xxxx xxxx xxxx ffff ffff ffff ffff
```

a = Opcode.

x = Not used and undefined.

b = SCSI bus and device ID.

c = Job ID assigned by the 3B.

d = Starting disk block number.

f = Number of disk blocks to be verified.

`0x14 (20)` — invalid command.

`0x15 (21)` — invalid command.

`0x16 (22)` — invalid command.

`0x17 (23)` — invalid command.

`0x18 (24)` — `write DFC RAM` command.

```
aaaa axxx xxxx bbbb xxxx xccc cccc cxxx
dddd dddd dddd dddd dddd dddd dddd dddd
xxxx xxxx xxxx xxxe eeee eeee eeee eeee
ffff ffff ffff ffff ffff ffff ffff ffff
```

a = Opcode.

x = Not used and undefined.

b = SCSI bus and device ID.

c = Job ID assigned by the 3B.

d = HA RAM address.

e = Data address in 3B mainstore.

f = Number of words to be transferred.

`0x19 (25)` — `write disk` command.

```
aaaa axxx xxxx bbbb xxxx xccc cccc cxxx
dddd dddd dddd dddd dddd dddd dddd dddd
xxxx xxxx xxxx xxxe eeee eeee eeee eeee
ffff ffff ffff ffff ffff ffff ffff ffff
```

a = Opcode.

x = Not used and undefined.

b = SCSI bus and device ID.

c = Job ID assigned by the 3B.

d = Starting disk block number.

e = Data address in 3B mainstore.

f = Number of words to be transferred.

`0x1a (26)` — `pump` command.

```
aaaa axxx xxxx bbbb cddd deee eeee exxx
ffff ffff ffff ffff ffff ffff ffff ffff
xxxx xxxx xxxx xxxg gggg gggg gggg gggg
hhhh hhhh hhhh hhhh hhhh hhhh hhhh hhhh
```

a = Opcode.

x = Not used and undefined.

b = SCSI bus and device ID.

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c = Auto-vector at end of pump.

`0` — Do not auto-vector.
`1` — Auto-vector.

d = DFC pump options.

`1` — Pump from disk.
`2` — Begin pump from RAM.
`6` — Continue pump from RAM.

e = Job ID assigned by the 3B.

f = Starting disk block number.

g = Data address in 3B mainstore.

h = Number of words to be pumped.

`0x1b (27)` — `format` command.

```
aaaa abbx xxxx cccc xxxx xddd dddd dxxx
eeee eeee xxxx xxxx xfgh hhii jjjj jjjj
kkkk kkkk kkkk kkkl llll llll llll llll
mmmm mmmm nnnn nnnn oooo oooo pppp pppp
```

a = Opcode.

b = Format options.

`1` — No header or defect list provided by the 3B.
`2` — Header only provided by the 3B.
`3` — Both header and defect list provided by the 3B.

x = Not used and undefined.

c = SCSI bus and device ID.

d = Job ID assigned by the 3B.

e = Time limit for format commands.

f = Format data.

g = Complete list.

h = Defect list format.

i = Vendor unique data 2.

j = Vendor unique data 1.

k = Flaw data length in bytes.

l = Flaw data 3B mainstore address.

m = Format header byte 0.

n = Format header byte 1.

o = Format header byte 2.

p = Format header byte 3.

`0x1c (28)` — `request device status` command.

```
aaaa axxx xxxx bbbb xxxx xccc cccc cxxx
xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
xxxx xxxx xxxx xxxd dddd dddd dddd dddd
eeee eeee eeee eeee eeee eeee eeee eeee
```

a = Opcode.

x = Not used and undefined.

b = SCSI bus and device ID.

c = Job ID assigned by the 3B.

d = Data address in 3B mainstore.

e = Number of words to be transferred.

`0x1d (29)` — `diagnostic helper` command.

```
aaaa abbb bbbb bbbb bbbb bbbb bbbb bccc
```

a = Opcode.

b = Diagnostic control data.

c = PIO destination bits.

`0x1e (30)` — `disk-to-disk copy` command.

```
aaaa axxx xxxx bbbb xccc cddd dddd dxxx
eeee eeee eeee eeee eeee eeee eeee eeee
ffff ffff ffff ffff ffff ffff ffff ffff
gggg gggg gggg gggg gggg gggg gggg gggg
```

a = Opcode.

x = Not used and undefined.

b = Source SCSI bus and device ID.

c = Destination SCSI bus and device ID.

d = Job ID assigned by the 3B.

e = Starting source disk block number.

f = Starting destination disk block number.

g = Number of disk blocks to be copied.

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`0x1f (31)` — `diagnose DFC/device` command.

`aaaa abbb bbbb cccc dddd deee eeee efff`

a = Opcode.

b = Diagnostic control data.

c = SCSI bus and device ID.

d = Device type selected.

`0` — Device.
`1` — DFC.

e = Job ID assigned by the 3B.

f = PIO destination bits.

ID . . . . . APP-DFC-APPN
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

This appendix contains the following tables:

Table 1 - Host Adapter Status Register (FW / PC versions 7.0 and 8.0);
Table 2 - Host Adapter Status Register (FW / PC versions 9.0).

Table 1 - Host Adapter Status Register (FW / PC versions 7.0 and 8.0)

BIT	DESCRIPTION
31	Power on reset
30	Waiting for 3B direct memory access controller (DMAC)
29	Power disconnect one
28	Power disconnect zero
27	Over temperature bus 1
26	Over temperature bus 0
25	Mask interrupt level 9
24	Mask interrupt level 10
23	Host Adapter (HA) DMAC channel 1 flush
22	SCSI bus 1 enable
21	SCSI bus 1 receive bad parity
20	SCSI bus 1 send bad parity
19	HA DMAC channel 0 flush
18	SCSI bus 0 enable
17	SCSI bus 0 receive bad parity
16	SCSI bus 0 send bad parity
15	Address overlap inactive
14	Mask interrupt level 11
13	Mask interrupt level 13
12	HA DMAC channel 1 high priority
11	Diagnostics passed
10	Fault caused by diagnostics
09	Spare
08	Diagnostics in progress

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BIT	DESCRIPTION
07	Force bad parity byte 3
06	Force bad parity byte 2
05	Force bad parity byte 1
04	Force bad parity byte 0
03	Bus interface controller (BIC) access error
02	Parity error on HA static random access memory (SRAM)
01	Write protect violation
00	Sanity failure

The HA central processing unit (CPU) can read this register a byte at a time and write to each bit individually with each bit having a unique address. The HA status register bits are also controlled by individual jam sets derived from asynchronous events on the HA board. All the bits are cleared on the "Power On" reset or the "HA Reset". The detailed description of each bit is given below.

Bit 31 - (Power on reset) This bit is set after the power on reset. This bit differentiates between the two resets, the power on reset and the HA reset.

Bit 30 - (HA waiting for 3B DMAC) This bit is set via software when the HA is waiting for the 3B DMAC to complete a transfer of data between the 3B and the HA. After the HA detects completion of the transfer, the bit is cleared via software.

Bit 29 - (Power disconnect one) This bit is reserved for use by the HA CPU to disconnect SCSI bus 1.

Bit 28 - (Power disconnect zero) This bit is reserved for use by the HA CPU to disconnect SCSI bus 0.

Bit 27 - (Over temperature 1) This bit is reserved for a possible future application.

Bit 26 - (Over temperature 0) This bit is reserved for a possible future application.

Bit 25 - (Mask interrupt level 9) When this bit is set by the software control, level 9 interrupt to the HA CPU is selectively masked regardless of the interrupt priority level (IPL) of the HA CPU in the processor status word (PSW). In a special case, when this bit is set after the interrupt occurs but before it is recognized by the HA CPU, the interrupt will be negated and will not be recognized by the HA CPU (unless the interrupt is still present after the mask bit is cleared).

Bit 24 - (Mask interrupt level 10) Same as bit 25 except the interrupt level is 10.

Bit 23 - (HA DMAC channel 1 flush) When '0', the HA DMAC channel operates normally. When '1', any incoming bytes from SCSI bus that are buffered in the HA DMAC are flushed and channel operation is terminated.

Bit 22 - (SCSI bus 1 enable) Enables SCSI bus 1. When '0', SCSI bus drivers and receivers are disabled. When '1', drivers and receivers are enabled.

Bit 21 - (SCSI bus 1 receive bad parity) When this bit is set, bad parity is received on SCSI bus 1. This bit is cleared on a RESET.

Bit 20 - (SCSI bus 1 send bad parity) When this bit is set, bad parity is sent to SCSI bus 1. This bit is cleared on a RESET.

Bit 19 - (HA DMAC channel 0 flush) Same as bit 23 but for SCSI bus 0.

Bit 18 - (SCSI bus 0 enable) Same as bit 22 but for SCSI bus 0.

Bit 17 - (SCSI bus 0 receive bad parity) Same as bit 21 but for SCSI bus 0.

Bit 16 - (SCSI bus 0 send bad parity) Same as bit 20 but for SCSI bus 0.

Bit 15 - (Address overlap inactive) This bit is set or cleared by the software writing a '1' or '0' respectively, in the HASR bit 15. When this bit is set, address overlap is inactive. This bit is cleared on the RESET or after interrupt 15 to the HA CPU, so that just after the HA reset or memory fault, the address overlap is active and the system operates through EPROM.

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Bit 14 - (Mask interrupt level 11) When this bit is set by the software, level 11 interrupt (information present in BIC command register) is selectively masked regardless of the IPL value of the PSW in the HA CPU. This bit functions similar to the bit 25 in the HASR.

Bit 13 - (Mask interrupt level 13) Same as bit 25 except the interrupt level is 13.

Bit 12 - (HA DMAC channel 1 high priority) This bit selects which SCSI bus has higher HA DMAC priority.

Bit 11 - (Diagnostics passed) This bit is set or cleared by the software writing a '1' or '0' respectively, in the HASR bit 11. When this bit is set, it indicates that the diagnostics have passed. This bit is cleared on a RESET.

Bit 10 - (Fault caused by diagnostics) This bit is set or cleared by the software writing a '1' or '0' respectively, in the HASR bit 10. Diagnostics set this bit before initiating an error on the board to distinguish between an actual error and an error caused by the diagnostic test.

Bit 9 - (Spare) Spare bit.

Bit 8 - (Diagnostics in progress) This bit is set or cleared by the software writing a '1' or '0' respectively, in the HASR bit 8. When this bit is set, it indicates that the diagnostics are in progress.

Bit 7 - (Force bad parity on byte 3) When this bit is set, bad parity is generated on byte 3 of HA SRAM during a write operation. This bit is set or cleared by the software writing a '1' or '0' respectively, in the HASR bit 7. This bit is cleared on a RESET.

Bit 6 - (Force bad parity on byte 2) When this bit is set, in the HASR, a bad parity is generated on byte 2 of HA SRAM during the write operation. This bit is set or cleared by the software writing a '1' or '0' respectively, in the HASR bit 6. This bit is cleared on a RESET.

Bit 5 - (Force bad parity on byte 1) When this bit is set, bad parity is generated on byte 1 of HA SRAM during a write operation. This bit is set or cleared by the software writing a '1' or '0' respectively, in the HASR bit 5. This bit is cleared on a RESET.

Bit 4 - (Force bad parity on byte 0) When this bit is set, bad parity is forced on byte 0 of the HA SRAM during a write operation. This bit is set or cleared by the software writing a '1' or '0' respectively, in the HASR bit 4. This bit is cleared on a RESET.

Bit 3 - (BIC access error) This bit is set when the HA CPU or the HA DMAC tries to access the FIFO or BIC registers when the access is inhibited (the status bit "BIC - HA CPU interface enabled" in the BIC status register not set). It also generates an interrupt (level 13) to the HA CPU if it is not masked.

Bit 2 - (Parity error) This bit is set by the parity checker / generator when the parity error is detected while reading the HA SRAM. This bit can also be set or cleared by the software. It is cleared on RESET. A level 15 interrupt is also generated when the parity error is detected on the read operation on the HA SRAM.

SEE PROPRIETARY NOTICE ON COVER PAGE

Bit 1 - (Write protect violation) This bit is set when the microbus master tries to write in to the write protected area of the HA SRAM. A level 15 interrupt is generated to the HA CPU when this bit is set. This bit can also be set or cleared by the software.

Bit 0 (Sanity failure) - This bit is set when the sanity timer times out. A non-maskable interrupt is generated when the sanity failure occurs. This bit can also be set or cleared by the software.

Table 2 - Host Adapter Status Register (FW / PC versions 9.0)

BIT	DESCRIPTION
31	Spare
30	3B DMA Transfer in Progress
29	Spare
28	Spare
27	Spare
26	Spare
25	Mask (hide) SPC-B interrupt
24	Mask (hide) SPC-A interrupt
23	Spare
22	Enable SCSI Bus-B bus drivers
21	Spare
20	Spare
19	Spare
18	Enable SCSI Bus-A bus drivers
17	Spare
16	Mask (inhibit) setting the QUICC Bus Clear (QBC) bit
15	Write Protect Violation
14	Mask (hide) Command Present interrupt (4)
13	Swap QUICC-1 and SPC interrupt levels (3 / 2 to 2 / 3)
12	QUICC-0 IDMAs have higher priority than QUICC-1
11	Diagnostics passed
10	Fault caused by diagnostics
09	Enable EOT signal as interrupt source
08	Diagnostics in progress
07	Force bad parity - Microbus Byte 3 (07-00)
06	Force bad parity - Microbus Byte 2 (15-08)
05	Force bad parity - Microbus Byte 1 (23-16)
04	Force bad parity - Microbus Byte 0 (31-24)
03	BIC access error
02	Parity error on SRAM
01	QUICC bus clear
00	Sanity failure

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The HA central processing unit (CPU) can read this register a byte at a time and write to each bit individually with each bit having a unique address. The HA status register bits are also controlled by individual jam sets derived from asynchronous events on the HA board. All the bits are cleared on the "Power On" reset or the "HA Reset". The detailed description of each bit is given below.

Bit 31 - Spare bit.

Bit 30 - (3B DMA transfer in progress) This bit is set to '1' by HA software to indicate that a 3B21D DMA transfer is in progress. Note: there are cases when 3B DMA is in progress and the bit is not set.

Bit 29 - Spare bit.

Bit 28 - Spare bit.

Bit 27 - Spare bit.

Bit 26 - Spare bit.

Bit 25 - (Mask (hide) SPC-B interrupt) This bit is set to '1' by software to block interrupts from SPC-B. The output from this bit is used by the interrupt logic inside the FPGA.

Bit 24 - (Mask (hide) SPC-A interrupt) This bit is set to '1' by software to inhibit interrupts from SPC-A. The output from this bit is used by the interrupt logic inside the FPGA.

Bit 23 - Spare bit.

Bit 22 - (Enable SCSI Bus-B drivers) The SCSI bus drivers are enabled when this bit is set to '1' and disabled when this bit is '0' (ie. tri-stated).

Bit 21 - Spare bit.

Bit 20 - Spare bit.

Bit 19 - Spare bit.

Bit 18 - (Enable SCSI Bus-A drivers) The SCSI bus drivers are enabled when this bit is set to '1' and disabled when this bit is inactive '0' (ie. tri-stated).

Bit 17 - Spare bit.

Bit 16 - (Mask (inhibit) setting the QUICC bus clear bit) This bit is always set to '1' by HA software to prevent the HA CPU interrupt pending output from setting QUICC bus clear HASR bit.

Bit 15 - (Write Protect Violation) This bit is set to '1' by software when the bus master attempts to write into a protected area of SRAM.

Bit 14 - (Mask (hide) command present interrupt level 4) This bit is set to '1' by HA software to inhibit the BIC command interrupt. This masking is independent of the interrupt priority mask in the HA CPU's status register.

Bit 13 - (Swap QUICC-1 and SPC interrupt levels (3/2 to 2/3)) This bit is set to '1' by HA software to make the QUICC-1 interrupt a level 2 interrupt and the SPC interrupt a level 3 interrupt. When this bit is not set '0', the QUICC-1 interrupt is level 3 and the SPC interrupt is level 2.

Bit 12 - (QUICC-0 IDMAs have high priority than QUICC-1) This bit is set to '1' by HA software

to give bus requests from the QUICC-0 IDMA channels higher priority than the request form the QUICC-1 IDMA channels. *HA software can only change the state for this bit when the IDMAs are idle.*

Bit 11 - (Diagnostics passed) This bit is set to '1' by HA diagnostic software to indicate that diagnostics have passed.

Bit 10 - (Fault caused by diagnostics) This bit is set to '1' by HA diagnostics software before it causes an error to distinguish between an operational error and an error caused by a diagnostic test.

Bit 9 - (Enable EOT Signal as interrupt source) . This bit is set to '1' by HA software to enable the EOT signal as level 3 interrupt source in place of the 3B read / write complete interrupt source from QUICC-1 timer 4. Note that software must disable the 3B read / write complete interrupt as a separate operation. This bit is used in the interrupt logic inside the FPGA.

Bit 8 - (Diagnostics in progress) This bit is set to '1' by HA diagnostic software to indicate when diagnostic execution is in progress.

Bit 7 - (Force bad parity - microbus byte 3 (07-00)) This bit is set to '1' by the HA diagnostic software to force bad parity onto the HA CPU data bus and write bad parity into the SRAM or BIC FIFO. This bit is not set by hardware.

Bit 6 - (Force bad parity - microbus byte 2 (15-08)) This bit is set to '1' by the HA diagnostic software to force bad parity onto the HA CPU data bus and write bad parity into the SRAM or BIC FIFO. This bit is not set by hardware.

Bit 5 - (Force bad parity - microbus byte 1 (23-16)) This bit is set to '1' by the HA diagnostic software to force bad parity onto the HA CPU data bus and write bad parity into the SRAM or BIC FIFO. This bit is not set by hardware.

Bit 4 - (Force bad parity - microbus byte 0 (31-24)) This bit is set to '1' by the HA diagnostic software to force bad parity onto the HA CPU data bus and write bad parity into the SRAM or BIC FIFO. This bit is not set by hardware.

Bit 3 - (BIC access error) This bit is set to '1' via hardware when the bus master attempts to access the BIC FIFO when the access is inhibited. The output of this bit triggers a level 6 interrupt to the HA CPU.

Bit 2 - (Parity error on SRAM) This bit is set to '1' via hardware when a parity error is detected during an SRAM read. The output of this bit triggers a level 6 interrupt to the HA CPU.

Bit 1 - (QUICC bus clear) This bit is set to '1' via hardware by the interrupt pending output from the HA CPU. Can also be set to '1' and cleared '0' by HA software. The output from this register bit goes to the bus clear inputs of QUICC-0 and QUICC-1.

Bit 0 (Sanity failure) - This bit is set to '1' via hardware when the HA sanity timer times out.

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ID . . . . . APP-DFC-APPO
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

VERSION STRUCTURE BIT LAYOUT

```
AAAA BBBB BBCC CCCC DDDD EEEE FFFF FFFF
```

A Host adapter (HA) software version number.
B HA software issue number.
C HA software point issue number.
D HA software Engineering Design Information (EDI) tens digit number.
E HA software EDI units digit number.
F HA software EDI character in American Standard Code for Information Interchange (ASCII).

NOTE: If all of the bits in the version structure layout are "1", the information is not obtainable.

For firmware version **7.1.0-04A**: the values in the version number, issue number, and EDI fields must be identical to the values in the same fields in the pumpcode version in order for the firmware and pumpcode to be compatible.

For all other firmware versions: the values in the version number and issue number fields must be identical to the values in the same fields in the pumpcode version in order for the firmware and pumpcode to be compatible.

SEE PROPRIETARY NOTICE ON COVER PAGE

ID . . . . . APP-DFC-APPP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

HOST ADAPTER SHADOW REGISTER

The Host Adapter (HA) shadow register provides information about the HA status at the time of the HA's last reset. All fields except the last field provide a snapshot of HA status immediately prior to the last HA reset. The last field provides a snapshot of HA status immediately after the last HA reset. The HA status register is known as the HASR.

HA Shadow Register layout: `abcd efgh ijkl mnop qqqq qqqq rrrr rrrr`

Field	Description	HASR bit
a	Not used	-
b	Not used	-
c	Bus 0 differential sense	03
d	Bus 1 differential sense	07
e	Power on reset	31
f	HA waiting for 3B direct memory access (DMA) to complete	30
g	Small computer system interface (SCSI) bus 1 enable	22
h	SCSI bus 0 enable	18
i	Address overlap inactive	15
j	HA DMA controller (DMAC) channel 1 high priority	12
k	Diagnostics passed	11
l	Fault caused by diagnostics	10
m	Diagnostics in progress	08
n	Bus interface controller (BIC) access error	03
o	Parity error on static random access memory (SRAM)	02
p	Write protect violation	01
q	The value of the firmware / driver communications register. (See DFC Appendix B, DFC-APPB, Table 5.)	-
r	The current value of the firmware / driver communications register. (See DFC Appendix B, DFC-APPB, Table 5.)	-

ID . . . . . APP-FAULT-CODE
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

Fault Codes and Definitions

Fault codes `0xff` - `0xf0` and `0x80` - `0x10` are reserved for UNIX® RTR applications.

Code	Comment
`0x00`	No fault (normal).
`0xb0`	Disk Independent Operation (DIOP) state is FULL DISK LIMP MODE.
`0xb1`	Device reported error for programmed input/output (PIO) (kernel process only).
`0xb2`	PIC fault for PIO (kernel process only).
`0xb3`	Processor fault for PIO (kernel process only).
`0xb4`	Device reported error for direct memory access (DMA) input/output (IO).
`0xb5`	DMA addressing fault for DMA IO (kernel process only).
`0xb6`	PIC fault for DMA IO (kernel process only).
`0xb7`	Processor fault for DMA IO (kernel process only).
`0xb8`	Device reported error - PIO. No message.
`0xb9`	Peripheral interface controller (PIC) implicated - PIO in progress. No message sent with fault.
`0xba`	Addressing error - PIO in progress. No message associated with fault.
`0xbb`	Data being used by the process has non-correctable parity error.
`0xbc`	Message buffer audit fault for queued error messages.
`0xbd`	Message buffer audit fault for non-queued error messages.
`0xbe`	DIOP state is DUPLEX.
`0xbf`	DIOP state is SIMPLEX.
`0xc0`	Craft initialization fault.
`0xc1`	Recovery switch of processors is complete - sent from pcpeih to SIM to AIM.
`0xc2`	Soft switch is complete - sent from pcpeih to SIM.
`0xc3`	Configuration manager initialize request (kernel process only).
`0xc4`	Configuration manager remove request (kernel process only).
`0xc5`	Configuration manager remove request (kernel process only).
`0xc6`	Configuration manager limp mode (kernel process only).
`0xc7`	Configuration manager limp mode (kernel process only).

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Code	Comment *(continued)*
0xc8	Configuration manager manual or automatic diagnostic process (ADP) or routine remove (kernel process only).
0xc9	Unconditional remove (kernel process only).
0xca	Request that soft switch be done - sent from pcpmd to SIM.
0xcb	Routine soft switch - pcpeih only. Sent from SIM to pcpeih.
0xcc	Configuration manager remove under fault conditions (kernel process only).
0xcd	Non-segmented kernel-level audit has been timed out by SIM.
0xd1	Memory management - page invalid or not in memory.
0xd2	Memory management - page index too large.
0xd3	Memory management - segment invalid.
0xd4	Memory management - segment index too large.
0xd5	Illegal operating system trap (OST).
0xd6	Protection violation.
0xd7	Byte or halfword addressing violation.
0xd8	Instruction privilege violation.
0xd9	Illegal OP code.
0xda	Illegal switch between kernel and private stack (or vice versa).
0xe0	Phase level - initialization.
0xe1	System initialization.
0xe2	System initialization - critical.

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ID . . . . . APP-FMC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

FIELD MAINTENANCE CODES SYNTAX ERROR CODES

1 EXTRA KEYWORD(S)

2 EXTRA DATA - FIRST KEYWORD OF THE DATA FIELD

3 SECOND KEYWORD OF THE DATA FIELD MISSING

4 SECOND KEYWORD OF THE DATA FIELD INVALID

5 MISSING OR INVALID DATA - SECOND KEYWORD OF THE DATA FIELD

6 THIRD KEYWORD OF THE DATA FIELD MISSING

7 THIRD KEYWORD OF THE DATA FIELD INVALID

8 EXTRA DATA - THIRD KEYWORD OF THE DATA FIELD

9 MISSING OR INVALID DATA - THIRD KEYWORD OF THE DATA FIELD

10 OPTIONAL KEYWORD OF THE DATA FIELD INVALID

11 EXTRA DATA - OPTIONAL KEYWORD OF THE DATA FIELD

12 MISSING OR INVALID DATA - OPTIONAL KEYWORD OF THE DATA FIELD

13 MISSING SECOND LINE

14 EXTRA LINE(S)

SEE PROPRIETARY NOTICE ON COVER PAGE

FMC SYSTEM ERROR CODES *(continued)*

1 PDSOP CAN'T FDOPEN WRFD

2 PDSOPRW READ ERROR, ERRNO IS #errno
(System error code number; see System Error Codes Appendix, SYSERR-APP.)

ID . . . . . APP-FUEC-APP
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

FIELD UPDATE ERROR CODES

Field update error messages are categorized into one of the following error types:

`Internal` — The error occurred due to incorrect processing within a field update process.

`System` — A system call [for example, `malloc()`, `realloc()`, and `fork()`] failed.

`Database` — The process failed to access or update the field update database (`/etc/bwm/fudb`), the BWM database (`/etc/bwm/bwmdb`), or the system generation (SG) database.

`Usage` — The process was invoked with incorrect or missing arguments.

`COFF` — Common object file format errors were found.

`Filesys` — Errors occurred in file system functions [for example, `open()`, `close()`, `read()`, `lseek()`, and `fopen()`].

A number may follow the error category as in, for example, `DATABASE ERROR -1`. This error value is simply the value passed to `exit()` upon termination. It will always be non-zero to show the process's parent that an error has occurred.

The error category message is followed by additional information about the error and may contain field update error codes. Error messages of type `System` or `Filesys` sometimes contain their own error codes; the user must refer to the *UNIX® RTR Operating System/Operating System Interfaces Programmer's Manual*, Volume 3, for their meanings.

Error messages of type `Database` generally occur as a result of a function call which accesses or updates the field update database, the BWM database, or the SG database and are printed as Field Update Database Errors (`FUDBERRNO` or `ERRNO`). They are described in this appendix.

Error messages specific to the field update `DUFR` process are also described in this appendix, after the field update database errors.

Field Update Error Codes

CODE EXPLANATION

1 `UNABLE TO ADD RID 0X%lX to SETID 0X%lX`
The call to lla library function `lla_attrid()` failed.

Field Update Error Codes *(continued)*

CODE	EXPLANATION
2	`UNABLE TO ATTACH TO %s` The call to lla library function `lla_dbatt()` failed.
3	`UNABLE TO CREATE %s` The call to lla library function `lla_dbcrte()` failed.
4	`UNABLE TO RELEASE DATABASE` The call to lla library function `lla_dbrel()` failed.
5	`UNABLE TO REMOVE RID 0X%lX FROM SET 0X%lX` The call to lla library function `lla_delete()` failed.
6	`UNABLE TO DUPLICATE CURSOR` The call to lla library function `lla_dupsq()` failed.
7	`UNABLE TO GET RECORD` The call to lla library function `lla_get()` failed.
8	`UNABLE TO GET RID` The call to lla library function `lla_gtrid()` failed.
9	`UNABLE TO GET NEXT RECORD` The call to lla library function `lla_nextseq()` failed.
10	`UNABLE TO GET NEXT RID` The call to lla library function `lla_nsqrid()` failed.
11	`UNABLE TO GET NUMBER OF SETS CONTAINING RID 0X%lX` The call to lla library function `lla_numset()` failed.
12	`UNABLE TO OPEN SEQUENCE FOR SETID 0X%lX` The call to lla library function `lla_opensq()` failed.
13	`UNABLE TO OPEN SET SEQUENCING` The call to lla library function `lla_opnsets()` failed.
14	`UNABLE TO GET RECORD FOR RID 0X%lX` The call to lla library function `lla_rdget()` failed.

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Field Update Error Codes *(continued)*

CODE	EXPLANATION
15	UNABLE TO CREATE RECORD FOR SET 0X%lX The call to lla library function `lla_reccrt()` failed.
16	UNABLE TO FIND RECORD INFORMATION FOR RECORD 0X%lX The call to lla library function `lla_rinfo()` failed.
17	UNABLE TO REMOVE SET 0X%lX The call to lla library function `lla_rmset()` failed.
18	UNABLE TO FIND SETS CONTAINING RID 0X%lX The call to lla library function `lla_rsets()` failed.
19	*UNABLE TO GET NEXT SET IDENTIFIER The call to lla library function `lla_seqset()` failed.
20	UNABLE TO CREATE SET The call to lla library function `lla_setcrt()` failed.
21	UNABLE TO FIND INFORMATION FOR SET 0X%lX The call to lla library function `lla_sinfo()` failed.
22	UNABLE TO CLOSE SEQUENCE The call to lla library function `lla_sqcl()` failed.
23	UNABLE TO SYNC DISK AND CORE The call to lla library function `lla_sync()` failed.
24	UNABLE TO ABORT TRANSACTION BLOCKS The call to lla library function `tb_abort()` failed.
25	UNABLE TO COMMIT TRANSACTION BLOCKS The call to lla library function `tb_commit()` failed.
26	UNABLE TO PUMP CHANGES FOR %s The call to lla library function `tb_cleanup()` failed.
27	UNABLE TO GET SPACE INFORMATION The call to lla library function `tb_get_sp()` failed.
28	UNABLE TO UPDATE RID 0X%lX The call to lla library function `lla_uprid()` failed.

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Field Update Error Codes *(continued)*

CODE	EXPLANATION
29	Attempt to continue with no pending BWM An update process must be in a pending temp state before `CONT` can be used to continue an operation.
30	Cannot find record for %s No record exists for the update.
31	Do not recognize action (%d) An attempt was made to perform some action that is not known to field update.
32	*Head of queue (0x%lx) does not match pending (0x%lx) There is a mismatch between the head of the queue and the pending update.
33	For %s, expected status (%s) does not match status (%s) There is a mismatch between the status of update files.
34	Cannot perform action when BWM is pending A BWM is in a pending state and the user is still trying to perform updates. The user should perform an `APPLY:CONT`, `BKOUT:CONT`, `RESET`, or `OMIT` before doing more updates.
35	BWM is out of order An attempt was made to update a BWM with a lower number than one that has already been updated. BWMs must be applied in increasing numerical order.
36	Attempt to apply official BWM The user is trying to update a BWM that has already been `PERMED`.
37	%s exists and is not the last BWM applied When backing out BWMs, the last one applied has to be the first one backed out.
38	Cannot %s a BWM which is not temporary A BWM has to be in a temporary state before it can be `PERMED`.
39	*Expecting RID 0x%lx for %s to be in queue The record ID for a particular record cannot be found in the queue.
40	Cannot back out a PENDOFC BWM with no omitted updates If a BWM is in a pending official state, the user will have to do an `OMIT` in order to get it out of that state.

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Field Update Error Codes *(continued)*

CODE	EXPLANATION
41	For %s, expected status %s or %s does not match %s There is a mismatch between the status of two or more update files.
42	*Set 0x%lx has wrong set count (%d) The count is incorrect for a particular set.
43	*Record 0x%lx is in %d sets The number of sets an update record is in.
44	Expecting a pending update but found none If the user is trying to do an `APPLY:CONT`, `BKOUT:CONT`, `OMIT`, or `RESET`, the process expects the update to be in a pending state.
45	*Pending update RID 0x%lx not in queue The pending update record is not on the queue.
46	Do not recognize operation %d There user is attempting to do an operation that is not in the MSGS file.
47	Cannot reset an update which is not pending An update must be in a pending state for a `RESET` to work.
48	Unknown release action (%d) The specified generic is not valid.
49	Update for %s is not a function replacement Most likely, the user is using the wrong MSGS file. The commands in the MSGS file are for function replacement when the update may actually be a file replacement or byte replacement.
50	Update set 0x%lx for %s does not match saved set (0x%lx) There is a mismatch between the current set and saved set of the update.
51	Must pass non-NULL BWM buffer to updget The buffer passed to the call to function `updget()` must contain data.
52	Incompatible database versions: %d vs. %d The correct version of the database is not being used.
53	BWM name (%s) does not match that of update (%s) A mismatch between BWM names occurred.

Field Update Error Codes *(continued)*

CODE	EXPLANATION
54	%s cannot be made official before %s The record the user is trying to make official is out of order.
55	For %s, expecting update record for %s The process expects a record of the update.
56	Could not malloc space for reclaimable RIDs The system call `malloc()` failed.
57	Unexpected end of sequence for reclaimable loop `RECLAIM` processing ended before it should have ended.
58	`UNABLE TO REFRESH` The call to lla library function `tb_refresh()` failed.
59	Could not attach to port for %s The process failed to attach to the proper port. Most likely, another process (perhaps another instance of the same process) has already attached to it.
60	Inconsistent attaches to update databases The process did not attach to the field update database correctly.
61	Basedir %s does not match record %s There is a mismatch between the user's base directory and the record being updated.
62	Unknown status: %s The state of the BWM is not known (examples of known states are PENDOFC, PENDBKOUT, etc.).
63	Unknown type: %s The type of the BWM is not known (examples of known types are FILER, FUNCR, BYTER, DMRT, ADMRT, and BOOTBOTH).
64	`CANNOT ATTACH TO %s` The process failed to attach to the database.
65	`CANNOT RELEASE %s` The process failed to release the database.

Field Update Error Codes *(continued)*

CODE	EXPLANATION
66	`RID %x IS IN TOO MANY SETS (%d)` The return value from lla library function `lla_numset()` was greater than 3.
67	`CANNOT PURGE %s: STILL {HAS UNRECLAIMED UPDATES | TEMPORARY}` An attempt was made to purge a BWM which still has unreclaimed updates or is still in a temporary state.
68	`UNKNOWN NAME FOR RID %x` The database does not have a name for the RID.
69	`NO UPDATE PENDING` An attempt was made to omit a field update which was not in a pending state.
70	`BWM PENDING` An attempt was made to omit a BWM which was in the pending reclaim state.
71	`CANNOT CONDENSE RECLAIMED RECORDS FOR %s` The call to function condrecl() failed.
72	`NO BWM PENDING` An attempt was made to omit a BWM which was not in a pending state (pending temp, pending bkout, or pending ofc).
73	`UNKNOWN STATE (%d) FOR %s` The BWM was found to be in an unknown state in the database.
74	`UNABLE TO PERM BWM RECORD FOR %s` In trying to omit the BWM, the `perm_bwm()` function failed.

Field Update Warning/Error Codes for DUFR

CODE	EXPLANATION
-2	Warning that the attached data segment is named.
-4	Warning that the segment names have been cleared.
2	Bad return from the kernel overwrite process (KOP).
4	Error in opening or reading the update file, or error in the update file format.
6	Too many segments need attaching in order to perform update.
8	Could not grow patch segment.
10	Error in attempting to attach segments to dufr process.
12	Mismatch between old data in update file and core data.
14	Too many address-data couplets.
16	dufr internal error.
18	Error in detaching segments from dufr.
20	Overwrite attempts to reference address that is not in process's address space.
22	Address of transfer vector or address-data overwrite not aligned on a full word boundary.
24	Error in obtaining process IDs from utility manager.
26	Error in processing overwrite for multiple invocations of process, although at least one process was updated correctly.
28	Error in p_creating kopf process.
30	kopf did not send kopf-init event to KOP.
32	kopf and KOP faulted; overwrite was backed out.

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Field Update Warning/Error Codes for DUFR *(continued)*

CODE	EXPLANATION
34	KOP process faulted; neither an overwrite nor a backout was performed.
36	dufr process faulted.
38	dufr process externally terminated.
40	Invalid message for dufr process.
42	dufr process segment name clear failed for system reasons.
44	dufr process target process died (for KPUPDATE).

ID . . . . . APP-IOP-APPA
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

IODRV JOB COMPLETION ERROR CODES

Job completion reports have the same format as commands except for the addition of a completion code field.

For peripheral interface controller (PIC) reports the completion field size is 16 bits.

For peripheral controller (PC) and peripheral controller subdevice (PCSD) reports the completion field size is 12 bits.

NOTE: The codes are in hexadecimal.

Errors reported by the PC or PCSD (rejected commands):

`0000` Successful completion.
`0001` Successful completion - recoverable errors.
`0002` Job aborted - unrecoverable errors.
`0003` Job rejected - illegal command format.
`0004` Job rejected - illegal command context codes 05-0f reserved.

Errors reported by the PC (rejected commands):

`0010` PC XMT buffer underflow.
`0011` PC RCV buffer overflow.
`0012` PC RCV queue underflow (asynch report): codes 14-1f reserved; codes 20-ef spare.

Errors reported by the PIC (rejected commands):

`00f0` PC dequeue full.
`00f1` PC out-of-service.
`00f2` PC DAM error - CSA timeout.
`00f3` PC DAM error - data parity error.

Errors reported by the PIC (asynchronous reports):

`00f5` BP resp queue overflow.
`00f6` PC community power failure.
`aaf7` PC error detected by the PIC: (`aa` = PC error type, see below); codes `f8-ff` reserved.

PC errors detected by the PIC (asynchronous reports - `aaf7` format):

Upon detection of a PC error, the PIC will isolate the faulty PC from the common community busses, mark the PC out-of-service, flush all outstanding requests for PIC service by the faulty PC, and issue a HP autonomous error report to the driver. The completion report field includes one of the following error types:

`LD/ULD` - Load / unload
`DAM` - Dual Access Memory
`CSA` - Control Signal Acknowledgment
`IR` - Interrupt Request
`SR` - Service Request
`ER` - Error Report

`01f7` PC ER lead set.
`02f7` Spare IR status bit set.
`03f7` Spare SR status bit set.
`04f7` Illegal test IR received.
`05f7` Illegal test SR received.
`06f7` Illegal test ER received.
`10f7` PC DAM parity error detected.
`11f7` PC CSA timed-out.
`12f7` 3B transfer for PC job aborted.
`20f7` Illegal LD / ULD buffer IR parameter: Illegal PCSD ID.
`21f7` Illegal LD / ULD buffer IR parameter: Illegal byte count.
`22f7` Illegal LD / ULD buffer IR parameter: Illegal LD / ULD pointer.
`23f7` Illegal LD / ULD buffer IR parameter: Illegal buffer boundaries.
`30f7` Illegal LD / ULD buffer SR parameter: Illegal PCSD ID.
`31f7` Illegal LD / ULD buffer SR parameter: Illegal byte count.
`32f7` Illegal LD / ULD buffer SR parameter: Illegal LD / ULD pointer.
`33f7` Illegal LD / ULD buffer SR parameter: Illegal buffer boundaries.
`40f7` Error detected during HP job order: Boundary error.
`41f7` Error detected during HP job order: ULD PTR OOR.
`42f7` Error detected during HP job order: LD PTR OOR.
`43f7` Error detected during HP job order: PC job PTR OOR.
`50f7` Error detected during BP job order: Boundary error.
`51f7` Error detected during BP job order: ULD PTR OOR.
`52f7` Error detected during BP job order: LD PTR OOR.
`53f7` Error detected during BP job order: PC job PTR OOR.
`60f7` Error detected during HP job compl: Boundary error.
`61f7` Error detected during HP job compl: ULD PTR OOR.
`62f7` Error detected during HP job compl: LD PTR OOR.
`63f7` Error detected during HP job compl: PC job PTR OOR.
`70f7` Error detected during BP job compl: Boundary error.

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`71f7` Error detected during BP job compl: ULD PTR OOR.
`72f7` Error detected during BP job compl: LD PTR OOR.
`73f7` Error detected during BP job compl: PC job PTR OOR.
`80f7` Illegal HP job cmp report: Illegal response destination field.
`81f7` Illegal HP job cmp report: Illegal PC ID field.
`82f7` Illegal HP job cmp report: Illegal PCSD ID field.
`90f7` Illegal BP job cmp report: Illegal response destination field.
`91f7` Illegal BP job cmp report: Illegal PC ID field.
`92f7` Illegal BP job cmp report: Illegal PCSD ID field.
`a0f7` Babbling PC IR signal.
`a1f7` Babbling PC SR signal.

PC and PCSD reported errors (device dependent):

TTY or MTTY (PCSD)

`0003` Invalid command type or maint access command without 4 control bits properly set (invalid format).
`0011` Input buffer overflow.
`0013` Command other than RST or RMV with PCSD out-of-service.
`0020` Job terminated by quit, interrupt, or break.
`0021` Job aborted by disconnect or flush.
`0022` High priority message too long for job.

TTYC or MTTY (PC)

`0003` Invalid command type or maint access command without 4 control bits properly set (invalid format).
`0006` Checksum error (PC pump).
`0009` PC pump file (i.e., `/iop/pccode/t98300xx`) issue does not match the micro code issue of the PC (TN983) circuit pack.

MT (PCSD)

`0100` Tape unit write protected.
`0200` End of physical tape.
`0300` Subdevice off-line.
`0400` Timeout error.
`0500` Reached end of file during read.

ID . . . . . APP-IOP-APPB
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

DSCH STATUS LAYOUT (CHANNEL)

BIT	DESCRIPTION
00	high 3 bits of low return code
01	high 3 bits of low return code
02	high 3 bits of low return code
03	high 3 bits of high return code
04	high 3 bits of high return code
05	high 3 bits of high return code
06	channel busy f-f
07	I/O inhibit override f-f
08	sequencer error
09	illegal 3 out of 6 device address
10	command error
11	channel error (or of previous command)
12	maintenance f-f

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ID . . . . . APP-IOP-APPC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

BIC STATUS LAYOUT

BIT	DESCRIPTION
00	unit address
01	unit address
02	unit address
03	unit address
04	Direct memory access (DMA) setup overwrite
05	Peripheral bus interface (PBI) parity error 0
06	PBI parity error 1
07	PBI parity error 2
08	PBI parity error 3
09	EOD error
10	Peripheral interface controller (PIC) fatal error summary
11	sanity error
12	PIC data bus parity error lo
13	PIC data bus parity error hi
14	data first-in first-out (FIFO) overflow
15	command register overflow
16	FIFO word count
17	FIFO word count
18	FIFO word count
19	FIFO word count
20	FIFO word count
21	interrupt
22	transfer
23	setup
24	EOD expected

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BIC STATUS LAYOUT (*continued*)

BIT	DESCRIPTION
25	EOD received
26	transfer mode (0=WRD, 1=BLK)
27	enable PIC data bus parity check
28	interface enable
29	data flag
30	command in progress (CIP)
31	command flag

ID . . . . . APP-IOP-APPD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

D2SBS STATUS LAYOUT

BIT	DESCRIPTION
00	device reported error
01	overflow error
02	sequencer error
03	illegal D2SBS command
04	maintenance f-f
05	device interrupt request
06	device setup request
07	device transfer request

ID . . . . . APP-IOP-APPE
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

FAULT CODES RECOGNIZED BY IODRV

NOTE: The codes are in hexadecimal.

No Fault

`00` No fault (normal).

Peripheral faults - with accompanying message

`b1` Device reported error - IOPn (PIC or PCm) implicated - IOPn had pio in progress.
`b2` Parity divert error - IOPn (PIC) implicated - IOPn had pio in progress.
`b3` Channel error - IOPn not implicated but possibly affected - IOPn had pio in progress.
`b4` Device reported error - IOPn (PIC or PCm) implicated.
`b5` DMA addressing error - IOPn (PIC or PCm) implicated.
`b6` DMA used OOR address - IOPn (PIC) implicated.
`b7` Channel error - IOPn not implicated but possibly affected.

Peripheral faults - no accompanying message

`b8` Device reported error - cannot identify unit.
`b9` Parity divert error - cannot identify unit.
`ba` Addressing error - cannot identify unit.

Message buffer audit faults

`bc` Old or new queued audit messages (with accompanying message).
`bd` Old non-queued audit messages (no accompanying message).

Configuration manager fault codes - with accompanying message

`c3` Config. manager - excessive recoverable errors.
`c4` Config. manager remove directive - excessive errors.
`c5` Config. manager remove request - attempt restoral of oos usable unit.
`c6` Config. manager limp mode - attempt restoral of oos unusable unit.

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`c7` Config. manager limp mode - no replacement avail.
`c8` Config. manager manual remove.
`c9` Unconditional remove - not used by IODRV.

Not seen by IODRV - no accompanying message

`cb` Routine soft switch - pcpeih only.

Software errors - no accompanying message

`d1` Memory management - page invalid or not in memory.
`d2` Memory management - page index too large.
`d3` Memory management - segment invalid.
`d4` Memory management - segment index too large.
`d5` Illegal ost (from kernel).
`d6` Protection violation.
`d7` Byte or halfword addressing violation.
`d8` Instruction privilege violation.
`d9` Illegal op code.

System initialization - no accompanying messages

`e1` Substantial system recovery has occurred IOPn might be affected.
`e2` System initialization - critical.

ID . . . . . APP-IOP-APPF-A
GENERIC . . . . . UNIX RTR R1.5 and R6.4
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

ERROR CODES GENERATED BY IODRV

NOTE: These error codes are in hexadecimal notation.

IODRV

FUNCTION	CODE	COMMENT
iointr.c	0100	Cannot convert iorid to ucblp.
iointr.c	0101	Report error has exceeded the acceptable error count.
iointr.c	0102	Cannot reset interrupt flag in BIC.
iointr.c	0104	PIC passed out of range load printer.
iointr.c	0106	Failed to sense D2SBS status.
iointr.c	0107	D2SBS status off-normal.
procrsp.c	0200	Base priority queue overflow.
procrsp.c	0300	Cannot convert iorid to ucblp.
procrsp.c	0301	Unknown response received.
procrsp.c	0304	PC audit response failure.
procrsp.c	0400	Cannot convert iorid to ucblp.
procrsp.c	0401	Unknown response received.
kost.c	0501	OST is invalid for this dev.
kost.c	0504	Extraneous OST.
kost.c	0505	Cannot map ldin to UCB(s).
servr2.c	0600	Cannot convert iorid to ucblp.
servr2.c	0640	Failed to get PCSD's UCB.
servr2.c	0641	downucb() failed for PCSDs.
servr2.c	0642	Cannot get PC's UCB.
servr2.c	0643	downucb() failed to get PC's UCB.
servr2.c	0644	Failed to get IOP's UCB.
servr2.c	0645	Link to device handler failed.
servr2.c	0646	Link to device handler failed.
servr2.c	0670	Failed to get PCSD's UCB.
servr2.c	0671	downucb() failed for PCSDs.
servr2.c	0672	Cannot get PC's UCB.
servr2.c	0673	downucb() failed to get PC's UCB.
servr2.c	0674	Failed to get IOP's UCB.

FUNCTION	CODE	COMMENT *(continued)*
servr2.c	0677	Cannot get PC's UCB.
procrsp.c	0711	Encountered idle response queue entry.
procrsp.c	0712	Response queue load pointer out of range.
isc.c	0740	isalloc failure - align argument out of acceptable range.
isc.c	0741	isalloc failure - user requested more than segment of space.
isc.c	0742	isalloc failure - iolockseg failed.
isc.c	0743	isalloc failure - no requester nodes available.
isc.c	0744	isalloc error - isalign could not find growable element.
isc.c	0748	isalloc failure - IMF add message could not be sent to MMGR.
isc.c	0749	isalloc failure - IMF grow message could not be sent to MMGR.
isc.c	074a	isalloc failure - IMF add message could not be sent to MMGR.
isc.c	0750	isc problem - MSACK from MMGR indicates add failed.
isc.c	0751	isc failure - grow retry failed.
isc.c	0752	isc failure - isimfretry could not find growable element.
isc.c	0758	isc failure - normal grow request failed.
isc.c	0759	isc failure - retry grow request for single user failed.
isc.c	075a	isc failure - degrow request failed.
isc.c	075b	isc failure - grow of unidentifiable type failed.
isc.c	075c	isalloc failure - iolockseg failed.
isc.c	0760	isc problem - IMF could not send remove message to MMGR.
isc.c	0761	isc problem - IMF could not send degrow message to MMGR.
isc.c	0768	iscanreq failure - invalid cancellation identifier.
isc.c	0769	iscanreq failure - invalid cancellation identifier (o).
isc.c	0770	isfree problem - attempt to unlock failed.
isc.c	0771	isfree failure - invalid security identifier.
isc.c	0772	isfree failure - invalid user area address.
isc.c	077a	isunlk failure - imf could not decrement lock count.
isc.c	077b	isunlk warning - block unlocked but iounlkseg not invoked.

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FUNCTION	CODE	COMMENT *(continued)*
isc.c	077c	isunlk failure - invalid security identifier.
isc.c	077d	isunlk failure - invalid user area address.
isc.c	077e	isc problem - no growable free space element in segment.
smc.c	0780	smalloc failure - SMID length argument exceeds maximum.
smc.c	0781	smalloc failure - invalid alignment boundary argument.
smc.c	0782	smalloc failure - block length argument exceeds allocated size.
smc.c	0783	smalloc failure - alignment argument differs from allocated block.
smc.c	0784	smalloc failure - no requester nodes available.
smc.c	0785	smalloc failure - block length argument exceeds size requested.
smc.c	0786	smalloc failure - no shared memory block request nodes available.
smc.c	0787	smalloc failure - no requester nodes available.
smc.c	0788	smalloc failure - ISC allocation failed.
smc.c	0789	smalloc error - rqip node not found.
smc.c	078a	smalloc failure - ISC allocation failed.
smc.c	0790	smcanreq failed - invalid cancel request identifier.
smc.c	0791	smcanreq failed - invalid shared memory identifier.
smc.c	0792	smcanreq failed - zero is invalid cancel request identifier.
smc.c	0798	smfree failed - invalid shared memory block address.
smc.c	0799	smfree failed - invalid security identifier.
cfr.c	07c0	cfread failure - no requester nodes available.
cfr.c	07c1	cfread failure - no file request nodes available.
cfr.c	07c2	cfread failure - no requester nodes available.
cfr.c	07c8	cfread failure - unable to open file.
cfr.c	07d0	cfread failure - isalloc unsuccessful.
cfr.c	07d1	cfread abort by cfreadbuf - no requesters or invalid state.
cfr.c	07d8	cfread - iounlk failed in cfreadack.
cfr.c	07d9	cfread failure - FMGR message acknowledgement has bad status.

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FUNCTION	CODE	COMMENT *(continued)*
cfr.c	07da	cfread - no file request node found for read acknowledgement.
cfr.c	07e0	cfread failure - FMGR message retry threshold exceeded.
cfr.c	07e4	cfread failure - RQIP node with timeout tag not found.
cfr.c	07e8	cfcanreq error - invalid cancel request identifier.
cfr.c	07e9	cfcanreq error - file not found.
cfr.c	07ea	cfcanreq error - invalid cancel request identifier.
cfr.c	07f0	cffree - freeing file with negative use count.
cfr.c	07f1	cffree error - invalid security identifier.
cfr.c	07f2	cffree error - invalid address.
cfr.c	07f3	`cfaunlock()` - freeing file with negative use count.
cfr.c	07f8	cfread failure - message buffer overflow.
cfr.c	07f9	cfread failure - timer request unsuccessful.
cfr.c	07fa	cfread failure - message buffer overflow.
cfr.c	07fb	cfread failure - timer request unsuccessful.
cfr.c	07fc	cfread failure - kgetsgn call unsuccessful.
cfr.c	07fd	cfread - queuemn for close message to FMGR unsuccessful.
cfr.c	07fe	cfread - buffer allocation failure for close message.
faultaud.c	0802	No handler to process message audit. Format of additional string information is defined as: `UNIT` *a b* *a* = A string for device name. *b* = A decimal for device number.
ioevnt.c	0803	Invalid message type.
ioevnt.c	0804	Message does not contain an iorid.
ioevnt.c	0805	Message does not contain an iorid.
ioevnt.c	0806	IOMESG msg does not contain an iorid.
ioevnt.c	0808	Cannot link msg to device handler.
ioevnt.c	0809	Cannot link msg to maint handler.
ioevnt.c	080a	Unknown message type.
ioevnt.c	080b	Cannot link msg to device handler.
ioevnt.c	080c	IODRV both send and receiver of message (not USRACK).
ioevnt.c	0810	Not a pointer in driver's data space.

FUNCTION	CODE	COMMENT *(continued)*
ioevnt.c	0813	Cannot link message to Transport Protocol Handler.
faultaud.c	0828	lkhand1() returned ENOHAND.
faultaud.c	0829	Cannot map to a UCB.
faultaud.c	082a	Invalid input option.
faultaud.c	0830	USRACK expected in system returned message.
faultaud.c	0831	lkhand1() returned ENOHAND.
faultaud.c	0832	lkhand1() returned ENOHAND.
faultaud.c	0833	lkhand1() returned ENOHAND.
procmsg.c	0901	RID cannot map to a UCB. Format of additional string information is defined as: *a b c d* *a* = Message sender's process number in hexadecimal. *b* = '0' indicates following item in c is a MDCT RID '1' indicates that to be a UCB RID. *c* = UCB PID or MDCT RID in hexadecimal. *d* = Message sender's utility id in hexadecimal. To get a full copy of the above UCB or MDCT, use following browse procedures: ">" is the browse prompt, after it is the operator input. The line below the input line is response from browse. Comments enclosed are not part of the input/response. >**browse %-ecd** /* Enter database name for browse */ %-ecd /* browse acknowledgement */ >**dd /usr/bin/ecd_aux** /* Enter data dictionary look up */ /usr/bin/ecd_aux /* browse acknowledgement */ >**0x496a0/r** /* dump record with RID of 0x496a0 */ ..... content of the record ..... >**q** /* quit after dump completion */
procmsg.c	0902	Invalid input option (not CVTRID or CVTLDIN).
procmsg.c	0905	Cannot link msg to maint handler.

FUNCTION	CODE	COMMENT *(continued)*
procmsg.c	0906	Cannot link msg to device handler.
procmsg.c	0a01	Cannot map RID to UCB.
procmsg.c	0a06	Cannot link msg to device handler.
initma.c	0c00	`initdb()` cannot get list of IOPs.
initma.c	0c01	`initdb()` cannot attach to database.
initma.c	0c02	Failed DMAC RAM initialization - IOPn not restored.
initma.c	0c03	EMPT pointer has bad virtual address.
initma.c	0c04	EMPT has bad virtual address.
initma.c	0d00	IOP member number too large - IOPn not restored.
initma.c	0d03	Cannot convert iorid to ucblp.
initma.c	0d04	Cannot convert iorid to ucblp.
initma.c	0d05	Cannot get list of IOPs.
initma.c	0d06	Cannot attach to ECD.
initma.c	0d07	IOPn attached to wrong port.
initma.c	0d08	`timreq1()` function returned FAIL.
initma.c	0d09	Failed to attach to a port.
initma.c	0d0a	Unable to obtain PC power down reset timer.
initmb.c	0e04	Memory not allocated for IOPn - leave OOS.
initmb.c	0e05	Unable to convert PC RID to UCB.
initmb.c	0e06	Unable to convert PCSD RID to UCB.
initmb.c	0e07	No memory exists for PC.
initmb.c	0e08	No memory exists for PCSD.
initmb.c	0e0a	Downucbs returned fail.
initmb.c	0e0b	Downucbs function returned fail.
servr2.c	0f00	Unable to convert I/O rid to a ucblp.
servr2.c	0f01	Cannot map virt addr to a seg no. or downucbs failed for PCSDs.
servr2.c	0f02	Cannot lock segment or cannot get PC's ucb.
servr2.c	0f03	Cannot unlock segment or cannot get PC's ucb.
servr2.c	0f04	Failed to get IOP's UCB.
servr2.c	0f05	Failed to link to application handler.
servr2.c	0f06	Link to device handler failed.
picgh.c	1001	Asynchronous PIC completion failure report (not during restoral).
picgh.c	1002	Generic PIC handler in wrong state for given response.
servr1.c	1100	C_FAIL returned by CONFIG for rptrerr.
servr1.c	1101	Recovery - timeout request failure.
servr1.c	1102	Cannot convert iorid to ucblp.

FUNCTION	CODE	COMMENT *(continued)*
servr1.c	1103	Recovery will be performed on device.
picgh.c	1200	IOPn restore - no timing available.
picgh.c	1300	IOPn restore - cannot clear BIC.
picgh.c	1302	IOPn restore - invalid sequence number.
picgh.c	1303	IOPn restore - cannot reset PIC.
picgh.c	1306	IOPn restore - cannot send sysgen pio.
picgh.c	1307	IOPn restore - failed to enable interrupts.
picgh.c	1308	IOPn restore - cannot clear D2SBS.
picgh.c	1400	IOPn restore - completion code error.
picgh.c	1401	IOPn restore - invalid sequence number.
picgh.c	1500	IOPn restore - timed out.
pcgh.c	1601	Asynchronous PC completion failure report (not during restoral).
pcgh.c	1602	Generic PC handler in wrong state for given response.
pcgh.c	1701	PCn restore failed.
pcgh.c	1702	Cannot get PIC UCB.
prms.c	170a	Unable to get message buffer for PRM.
prms.c	170b	Unable to send PRM message to SIM.
pcgh.c	1800	PCn restore - command queue failure - mark PC comm in service.
pcgh.c	1801	PCn restore - command queue failure - clear PC.
pcgh.c	1802	PCn restore - command queue failure - reset PC isol ff and mark in service.
pcgh.c	1803	PCn restore - command queue failure - read PC scanback.
pcgh.c	1804	PCn restore - command queue failure - pump PC code.
pcgh.c	1805	PCn restore - command queue failure - execute PC code.
pcgh.c	1806	`getpta()` returned failure.
pcgh.c	1807	PCn restore - invalid sequence number.
pcgh.c	1808	PCn restore - command queue failure - read PC code version.
pcgh.c	1809	MTTYC restore - PC pump failure - trying alternate pumpcode filename. ECD database may have incorrect name for MTTYC pump file (TN83/TN983).
pcgh.c	180a	pcclear failed to free copy of pump file.
pcgh.c	180b	pcclear failed to cancel pending request for copy of pump file.

FUNCTION	CODE	COMMENT *(continued)*
pcgh.c	180c	Asndma1() failure.
pcgh.c	180d	pccomp cannot pump - getpta call failed.
pcgh.c	180e	pccomp cannot pump - cfread failed.
pcgh.c	180f	PCn pump abort - PC already being pumped.
pcgh.c	1810	PCn pump abort - wrong sequence number.
pcgh.c	1811	PCn restore failure - could not get UCB.
pcgh.c	1820	PCn restore - no timing available.
pcgh.c	1900	PCn restore - completion code failure mark PC comm in service.
pcgh.c	1901	PCn restore - completion code failure- clear PC.
pcgh.c	1902	PCn restore - completion code failure - reset PC isol ff and mark in service.
pcgh.c	1903	PCn restore - completion code failure - read PC scan back.
pcgh.c	1904	PCn restore - completion code failure - pump PC code.
pcgh.c	1905	PCn restore - completion code failure - execute PC code.
pcgh.c	1906	PCn restore - invalid sequence no.
pcgh.c	1907	PCn restore - no timing available.
pcgh.c	1908	PCn restore - completion code failure - read PC code version.
pcgh.c	1909	PCn restore - PC not plugged in.
pcgh.c	1930	PCn restore - unrecognized response - mark PC comm in service.
pcgh.c	1931	PCn restore - unrecognized response - clear PC.
pcgh.c	1932	PCn restore - unrecognized response - reset PC isolff and mark in service.
pcgh.c	1933	PCn restore - unrecognized response - read PC scan back.
pcgh.c	1934	PCn restore - unrecognized response - pump PC code.
pcgh.c	1935	PCn restore - unrecognized response - execute PC code.
pcgh.c	1938	PCn restore - unrecognized response - read PC code version.
pcgh.c	1a00	PCn restore - timed out - mark PC comm in service.

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FUNCTION	CODE	COMMENT *(continued)*
pcgh.c	1a01	PCn restore - timed out - clear PC.
pcgh.c	1a02	PCn restore - timed out - reset PC isol ff and mark in service.
pcgh.c	1a03	PCn restore - timed out - read PC scanback.
pcgh.c	1a04	PCn restore - timed out - pump PC code.
pcgh.c	1a05	PCn restore - timed out - read PC code version.
pcgh.c	1a06	PCn restore - timed out - execute PC code.
iowque.c	1b00	Push queue - command queue full.
rstcont.c	1c01	Cannot convert iorid to ucblp.
rstcont.c	1c02	Cannot convert iorid to ucblp.
rstcont.c	1d00	Cannot complete common IODRV mem initialization.
rstcont.c	1d01	Unable to convert IOP RID to UCB.
rstcont.c	1d02	Unable to release data base record.
rstcont.c	1d03	Unable to obtain list of PCs.
rstcont.c	1d04	Unable to convert PC RID to UCB.
rstcont.c	1d05	Unable to release data base record.
rstcont.c	1d06	Unable to obtain list of PCSDs.
rstcont.c	1d07	Unable to convert PCSD RID to UCB.
rstcont.c	1d08	Unable to release data base record.
rstcont.c	1d09	Unable to obtain list of PCSDs.
rstcont.c	1d0a	Unable to convert PCSD RID to UCB.
rstcont.c	1d0b	Unable to release data base record.
rstcont.c	1d0c	Bad device level.
rstcont.c	1d20	`setboot()` got FAIL from `downucb()`.
rstcont.c	1d21	`setboot()` got FAIL from `relrec()`.
rstcont.c	1d22	`setboot()` cannot convert RID to UCB.
servr1.c	1d60	Unknown unit level.
servr1.c	1d61	No words to zero.
iowque.c	1e00	Send pio - cannot read BIC status.
iowque.c	1e01	Send pio - failed to read BIC status.
iowque.c	1e02	Send pio - BIC status error or cmd flag stuck.
iowque.c	1e03	Send pio - failed to send programmed I/O instr.
outmsg.c	1f00	Cannot convert iorid to ucblp.
iotime.c	2000	Cannot convert iorid to ucblp.
rstcont.c	2100	Cannot convert iorid to ucblp.
rstcont.c	2101	`lkhand1()` returned fail.
rstcont.c	2200	downucbs function returned fail.
rstcont.c	2300	Bad handler id.

FUNCTION	CODE	COMMENT *(continued)*
rstcont.c	2301	restsd() cannot convert RID to UCB.
iolkh.c	2400	getucbl() failed to get IOP UCB.
rmvcont.c	2401	Downucbs function returned fail.
rmvcont.c	2402	Cannot convert a rid to a UCB record.
rmvcont.c	2403	rqstrmv() returned C_FAIL or unknown response.
iolkh.c	2410	getcomsupv - no free comsupvinfo structure.
servr1.c	2500	Cannot convert iorid to ucblp.
servr1.c	2501	Downucbs function returned fail.
servr1.c	2502	Downucbs function returned fail.
servr1.c	2503	Cannot convert iorid to ucblp.
servr1.c	2504	Downucbs function returned fail.
servr1.c	2505	Cannot convert PCSD RID to UCB record.
servr1.c	2506	haltact() cannot convert RID to UCB.
servr1.c	2600	Cannot convert a rid to a UCB record.
servr1.c	2601	Downucbs function returned fail.
servr1.c	2602	Cannot convert iorid to ucblp.
outmsg.c	2700	Cannot convert iorid to ucblp.
outmsg.c	2800	Cannot convert iorid to ucblp.
rmvcont.c	2900	Downucbs function returned fail.
rmvcont.c	2901	Cannot convert iorid to ucblp.
rmvcont.c	2a00	Downucbs function returned fail.
rmvcont.c	2a01	Unable to convert PC RID to UCB.
rmvcont.c	2b00	Cannot convert iorid to ucblp.
rmvcont.c	2b01	rmv_half() encountered invalid unit level.
rmvcont.c	2c00	Cannot convert iorid to ucblp.
crmvcont.c	2c03	Cannot convert iorid to ucblp.
crmvcont.c	2c04	downucbs() function returned FAIL.
crmvcont.c	2c05	Cannot convert iorid to ucblp.
crmvcont.c	2c06	downucbs() function returned FAIL.
crmvcont.c	2c07	Cannot convert iorid to ucblp.
crmvcont.c	2c08	Cannot convert iorid to ucblp.
crmvcont.c	2c09	Cannot convert iorid to ucblp.
crmvcont.c	2c0a	Cannot convert iorid to ucblp.
crmvcont.c	2c0b	downucbs() function returned FAIL.
crmvcont.c	2c0c	Cannot convert iorid to ucblp.
crmvcont.c	2c0d	downucbs() function returned FAIL.
crmvcont.c	2c0e	Cannot convert iorid to ucblp.
crmvcont.c	2c0f	downucbs() function returned FAIL.

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FUNCTION	CODE	COMMENT *(continued)*
crmvcont.c	2c10	Cannot convert iorid to ucblp.
crmvcont.c	2c11	PCn remove - no timing available.
crmvcont.c	2c12	Cannot get PC UCB.
crmvcont.c	2c13	Cannot get PIC UCB.
crmvcont.c	2c14	Cannot get PC UCB.
crmvcont.c	2c15	Function `deltrg1()` returned FAIL.
outmsg.c	2c20	Conditional remove - cannot get timing.
outmsg.c	2c21	Conditional remove - cannot get timing.
rmvcont.c	2c30	Function `downucbs()` returned FAIL.
rmvcont.c	2c31	Function `rqstrmv()` returned C_FAIL or unknown response.
rmvcont.c	2c32	Function `get_llarec()` returned FAIL from UCB access.
outmsg.c	2d00	Cannot convert iorid to ucblp.
rstcont.c	2e00	Memory initialization failure.
rstcont.c	2e01	Cannot convert iorid to ucblp.
rstcont.c	2e02	`getucb1()` failed to get IOP UCB.
rstcont.c	2f00	downucbs function returned fail.
fault.c	3000	FLT_SCRIT fltcode unexpected.
fault.c	3001	FLT_SINIT fault.
fault.c	3002	Software fault. Format of additional string information is defined as: FLTC X'a PA X'b, a = Reference IOP Appendix E for fault code. b = Program address.
fault.c	3003	FLT_SOFTSW fltcode unexpected.
fault.c	3004	Strange fault code.
fault.c	3005	IODRV owns an old non-queued audit error message.
fault.c	3006	Illegal OST.
outmsg.c	3101	Unable to convert unit RID to UCB.
wkspc.c	3110	Unable to convert unit RID to UCB.
wkspc.c	3120	`bgrowucmp()` got FAIL from `isfree()`.
wkspc.c	3121	`bgrowucm()` got FAIL from `isfree()`.
wkspc.c	3122	`dyngrowump()` got FAIL from `isfree()`.
wkspc.c	3123	Failed to release UCB reword.
wkspc.c	3124	Cannot get size requirement for PCSD boot growth.
wkspc.c	3125	Cannot get size requirement for PC boot growth.
wkspc.c	3126	Cannot update incore UCB for boot growth failure.

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FUNCTION	CODE	COMMENT *(continued)*
wkspc.c	3127	Cannot update incore UCB for delayed growth failure.
wkspc.c	3130	Cannot update incore UCB for growth failure.
ioimf.c	3160	Unable to obtain a message buffer while attempting to add a segment.
ioimf.c	3161	Unable to activate a timer while attempting to add a segment.
ioimf.c	3162	Unable to obtain a message buffer while attempting to grow a segment.
ioimf.c	3163	Unable to activate a timer while attempting to grow a segment.
ioimf.c	3164	Unable to obtain a message buffer while attempting remove a segment.
ioimf.c	3165	Invalid message type.
ioimf.c	3166	Unable to queue the message.
ioimf.c	3170	Add message acknowledgement received but no timer was set.
ioimf.c	3171	Grow message acknowledgement received but no timer was set.
ioimf.c	3172	Invalid message type.
ioimf.c	3173	Pointer contained in ms_ident is not in I/O driver's address space.
iointr.c	3174	Pointer contained in ms_ident is not in I/O driver's address space.
ioimf.c	3180	Either a message was lost or an attempt failed, causing a retry to have to be made.
ioimf.c	3181	Unable to activate the settle-down timer.
ioimf.c	3182	The retry counter has been exceeded.
ioimf.c	3190	Invalid message type.
ioimf.c	3191	Unable to set initialization timer in imfinit.
ioimf.c	3192	ioimftout cannot find MCT.
wkspc.c	31c0	Bad unit level.
wkspc.c	31c1	Cannot get size requirement for PC growth.
wkspc.c	31c2	Cannot get size requirement for PCSD growth.
wkspc.c	31e0	Unable to attach to interrupts for IOPn.
wkspc.c	31e1	Unable to get page table address for IOPn.
wkspc.c	31e2	Unable to initialize DMAC RAM for IOPn.
wkspc.c	31e3	Unable to obtain IOPn option block.
fault1.c	3200	DMA restart - cannot abort job.

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FUNCTION	CODE	COMMENT *(continued)*
fault1.c	3201	Failed to enable interrupts for IOPn.
fault1.c	3202	Failed to initialize DMAC ram.
fault1.c	3203	DMA restart - cannot clear BIC.
fault1.c	3204	DMA restart - cannot set interface enable.
fault1.c	3300	Cannot convert iorid to ucblp.
fault1.c	3401	Reboot IOP - pio lost.
fault.c	3500	Cannot convert iorid to ucblp.
fault.c	3501	pio has been lost for a unit.
fault.c	3503	IODRV took message buffer audit fault.
fault.c	3600	Cannot convert iorid to ucblp.
fault.c	3601	PICn or PCn implicated.
fault.c	3602	PICn implicated.
fault.c	3603	PICn affected but not implicated.
fault.c	3604	High error cnt, but must limp along.
fault.c	3605	Fault message ignored.
fault.c	3606	High error cnt, remove.
fault.c	3607	PICn affected but not implicated.
fault.c	3608	High error count, but must limp along.
fault.c	3609	Too many faults.
fault.c	360a	No timer entry for short limp mode delay.
fault.c	360b	No timer entry for long limp mode delay.
fault.c	360c	Function `rptierr()` returned C_FAIL or unknown response.
fault.c	360d	Message buffer audit fault.
fault1.c	3703	NADRD, NPICP, or NDREP fault code - unit not identified.
iolla.c	3801	Unable to get UCB record (IORID call Phase I).
iolla.c	3802	Unable to get MDCT record (IORID call Phase II).
iolla.c	3803	Invalid input option (not CVTRID or CVTLDIN).
iolla.c	3806	MDCT rid not available.
iolla.c	3807	Cannot convert a rid to a MDCT record.
iolla.c	3808	MDCT does not contain at least one UCB rid.
iolla.c	3900	`getsucb1()` cannot get UCB.
iolla.c	3901	Bad RID passed as argument to `getsucb1()`.
iolla.c	3902	Invalid record id.
iolla.c	3904	Failed to get ucbl record.
iolla.c	3b02	Cannot convert rid to a MDCT record.
iolla.c	3c02	Cannot release a record.
pcaudit.c	3e00	downucbs function returned fail.

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FUNCTION	CODE	COMMENT *(continued)*
`pcaudit.c`	`3e01`	Cannot convert iorid to ucblp.
`pcaudit.c`	`3e03`	pushq1 function returned fail.
`pcaudit.c`	`3e05`	PCn audit failure - restart PCn.
`iolla.c`	`3f00`	Invalid record ID.
`iolla.c`	`3f01`	Unable to convert RID to a specified record.
`inhadm.c`	`4600`	Arguments in inhibit admin message unknown.
MT HANDLER		
`mterrhand.c`	`4000`	MT is in an improper state for restore / restart.
`mterrhand.c`	`4001`	Invalid type of restore / restart.
`mterrhand.c`	`4002`	Failed to restore; scratch area is not allocated.
`mterrhand.c`	`4004`	Cannot delete a DMA slot while processing a restoral.
`mterrhand.c`	`4005`	Cannot get PC UCB during PC restoral.
`mterrhand.c`	`4006`	No scratch area - restoral failed.
`mterrhand.c`	`4007`	Bad major state for restoral of device.
`mterrhand.c`	`4008`	Bad restore type.
`mterrhand.c`	`4009`	Cannot get recovery timer.
`mterrhand.c`	`4100`	Cannot delete DMA slot while completing manual remove.
`mterrhand.c`	`4200`	Cannot delete remove timer while processing half remove.
`mterrhand.c`	`4201`	Cannot get remove timer.
`mterrhand.c`	`4202`	Cannot delete DMA slot while processing half remove.
`mterrhand.c`	`4203`	Bad remove type.
`mterrhand.c`	`4300`	Cannot delete remove timer from `mtrmvdly()`.
`pmsgmt3.c`	`4302`	Improper message type.
`pmsgmt3.c`	`4400`	Failure due to MT not open.
`pmsgmt3.c`	`4401`	MT already open, not allowed to open to second user.
`pmsgmt3.c`	`4402`	Mode must be read or write.
`pmsgmt3.c`	`4500`	Record size is > 2048 bytes.
`pmsgmt3.c`	`4501`	Buffer must start on a word boundary in read mode.
`pmsgmt3.c`	`4502`	Offset into buffer must be on a word boundary in read mode.
`pmsgmt3.c`	`4503`	Writes must be sequential.

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FUNCTION	CODE	COMMENT *(continued)*
mtproc.c	4600	DMA assignment failure.
mtproc.c	4601	PC Q area is full.
mtproc.c	4602	Pushq failure.
mtproc.c	4603	Record size > 2048 (because of alignment).
pmsgmt3.c	4700	Attempt to open a device which is not closed.
pmsgmt3.c	4701	Attempt to read a device not open for reading.
pmsgmt3.c	4702	Attempt to write a device not open for writing.
pmsgmt3.c	4703	Bad message type detected by `pmsgmt3()`.
pmsgmt3.c	4704	Major state unit or handler state not suitable for accepting work.
mtproc.c	4800	Bad mode for opening a tape device.
mtproc.c	4801	Bad parameters for a read request.
mtproc.c	4802	Bad parameters for a write request.
mtproc.c	4803	Attempt to do non-sequential write.
mtproc.c	4804	Inconsistent internal state for closing a tape device.
mtproc.c	4805	Bad message type detected by `mtgetwk()`.
mtproc.c	4900	`pushq1()` returned fail when sending an open command.
mtproc.c	4901	`pushq1()` returned fail when sending a read / write command.
mtproc.c	4902	`pushq1()` returned fail when sending a close command.
mtproc.c	4903	`pushq1()` returned fail when sending a seek command.
mtproc.c	4904	`pushq1()` returned fail when sending a rewind command.
mtproc.c	4905	PC queue counter was not zero during open.
mtproc.c	4906	Cannot send rewind command, PC queue full.
mtproc.c	4907	Cannot send close command, PC queue full.
mtproc.c	4908	Bad opcode in current job structure.
mtproc.c	4909	Failed to assign DMA slot.
mtproc.c	490a	Hit EOF when trying to SEEK.
mtproc.c	490b	Detected fatal error when trying to SEEK.
mtproc.c	490c	Detected other errors when trying to SEEK.
prspmt3.c	4a00	Failed to delete DMA slot when current job completed.
prspmt3.c	4a01	Failed to delete DMA slot when received unexpected response.
prspmt3.c	4a02	Failed to delete DMA slot when received response for non active unit.

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FUNCTION	CODE	COMMENT *(continued)*
prspmt3.c	4a03	opcode in response does not match what was sent.
prspmt3.c	4a04	Obsolete response received and ignored.
prspmt3.c	4b00	Cannot delete DMA slot when handling an error in response.
prspmt3.c	4b01	Job rejected illegal command.
prspmt3.c	4b02	Job rejected illegal command sequence.
prspmt3.c	4b03	Job aborted nonrecoverable errors, e.g., bad spot on tape.
prspmt3.c	4b04	Generic part of response invalid.
prspmt3.c	4b05	Tape unit write protected.
prspmt3.c	4b06	End of physical tape.
prspmt3.c	4b07	Subdevice off-line.
prspmt3.c	4b08	Time out error - PC did not hear from tape unit in time.
prspmt3.c	4b09	Reached end of file during read.
prspmt3.c	4b0a	User part of response has unidentified error.
prspmt3.c	4b0b	Generic part of response has unidentified error.
prspmt3.c	4b0c	Unknown handler state when handling response.
prspmt3.c	4b0d	Cannot get error handling dead man timer.
prspmt3.c	4b0e	Cannot delete DMA slot from `procerrs()`.
prspmt3.c	4b0f	Cannot delete DMA slot from `mterrto()`.
prspmt3.c	4b10	PC timed out returning all pending responses following an error.
prspmt3.c	5000	Response opcode error.
prspmt3.c	5001	Response comp code default.
prspmt3.c	5102	Block contained more bytes than the number of bytes requested by read; the excess bytes are lost.
prspmt3.c	5200	EOF reached during read or seek.
prspmt3.c	5201	Tape unit write protected.
prspmt3.c	5202	End of physical tape.
prspmt3.c	5203	Subdevice off-line.
prspmt3.c	5204	PC time-out error.
prspmt3.c	5300	Job aborted non-recover errors.
prspmt3.c	5301	Job rejected illegal command.
prspmt3.c	5302	Job rejected illegal command context.
prspmt3.c	5304	MT was not active when PC response was received.
prspmt3.c	5400	Retried four times with no success; return with failure.

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FUNCTION	CODE	COMMENT *(continued)*
TTY HANDLER		
pmsgci3.c	6000	No active subdevice for supervisor.
pmsgci3.c	6001	Unexpected acknowledge message received. Format of additional string information is defined as: *a* *a* = channel flags (hex)
pmsgci3.c	6002	Process manager cannot create /prc/unix. Format of additional string information is defined as: *a b* *a* = message status (hex) *b* = channel id (hex)
pmsgci3.c	6003	Unknown process ID for pcreate message.
pmsgci3.c	6004	Unknown message type. Format of additional string information is defined as: *a b* *a* = message type (hex) *b* = ms_from field of message (hex)
pmsgci3.c	6005	Unable to get ciopt record.
pmsgci3.c	6006	Unable to get active UCB switchable device.
pmsgci3.c	6007	Non-switchable device not in proper state for close. Format of additional string information is defined as: *a* *a* = state of non-switchable device (hex)
pmsgci3.c	6008	Could not find active switchable device for cancel.
pmsgci3.c	6009	Non-switchable device not in proper state for cancel. Format of additional string information is defined as: *a* *a* = state of non-switchable device (hex)
prmvci3.c	6010	Error on subdevice conditional remove.
prmvci3.c	6011	Unable to initiate remove timing.
prmvci3.c	6012	Unknown remove type. Format of additional string information is defined as: [*a*] *a* = remove request type (hex)
prmvci3.c	6013	Unable to retrieve mdct for remove switchable unit.

FUNCTION	CODE	COMMENT *(continued)*
prmvci3.c	6015	prmvci3 - alocmsg failed in cihandqs.
prmvci3.c	6016	prmvci3 - could not get a timer for cifoswitch.
prspci3.c	6020	PC command not in maintenance queue.
prspci3.c	6021	Unknown opcode in PC response. Format of additional string information is defined as: *a b* *a* = response word 1 (hex) *b* = response word 2 (hex)
prspci3.c	6022	Unknown PC asynchronous report type. Format of additional string information is defined as: *a b* *a* = response word 1 (hex) *b* = response word 2 (hex)
prspci3.c	6023	Connection report for unit not in standby state. Format of additional string information is defined as: *a* *a* = unit state (hex)
prspci3.c	6024	Unrecognized async error report type.
prspci3.c	6025	Unable to get header update timing index.
prspci3.c	6026	Unrecognized async read priority. Format of additional string information is defined as: *a* *a* = priority value number (hex)
prspci3.c	6027	Failed to get connection wait timer. Format of additional string information is defined as: *a b* *a* = portswitch status (hex) *b* = number of portswitch failures (hex)
prspci3.c	6028	Device switched to OOS unit (HIT).
prspci3.c	6029	Device not switched, could not get a mate on disconnect. Format of additional string information is defined as: *a b* *a* = portswitch status (hex) *b* = number of portswitch failures (hex)
prspci3.c	602a	Could not get a mate, device restored. Format of additional string information is defined as: *a b* *a* = portswitch status (hex) *b* = number of portswitch failures (hex)

FUNCTION	CODE	COMMENT *(continued)*
`prspci3.c`	`602b`	Controller reported excessive BREAKs on subdevice. Format of additional string information is defined as: *a b* *a* = response word 1 (hex) *b* = response word 2 (hex) If *b* = 31000000 then high priority input. If *b* = 32000000 then base (low) priority input.
`ptrpci3.c`	`6030`	Unknown ost code. Format of additional string information is defined as: *a* *a* = OST type (hex)
`prstci3.c`	`603a`	Restore failure during restart.
`prstci3.c`	`603b`	Invalid restore type.
`prstci3.c`	`603c`	Unable to get logical date pointer.
`prstci3.c`	`603d`	Unable to retrieve ttopts or ciopts.
`prstci3.c`	`603e`	Unable to retrieve mdct.
`prstci3.c`	`603f`	prstci3 - alocmsg failed in `cihandqs()`.
`ciexec.c`	`6040`	Unknown maintenance opcode. Format of additional string information is defined as: *a b* *a* = maintenance command opcode (hex) *b* = option record pointer (hex)
`ciexec.c`	`6041`	Unable to find page table address.
`ciexec.c`	`6042`	Could not get a timer to reschedule I/O during port switch.
`ciexec.c`	`6043`	Could not get a timer to still hold I/O.
`ciexec.c`	`6044`	No active device to process held I/O.
`ciexec.c`	`6045`	Failed to get mate, no active device to process held I/O.
`ciexec.c`	`6046`	Could not get scratch area for any device held I/O.
`ciexec.c`	`6048`	Unable to add maintenance queue. Format of additional string information is defined as: *a b* [*b*] [*b*] [*b*] [*b*] *a* = command to be added *b* = commands on the maintenance queue (up to 5 of these)

FUNCTION	CODE	COMMENT *(continued)*
ciexec.c	6050	Fail to push PC command queue. Format of additional string information is defined as: *a b c* *a* = command word 1 (hex) *b* = command word 2 (hex) *c* = message pointer (hex)
ciexec.c	6051	Unrecognized PC command code. Format of additional string information is defined as: *a* *a* = pc opcode
cipcreat.c	6060	Unable to be created by non-active subdevice.
cipcreat.c	6061	Number of pcreate attempts >THRESHOLD.
cisupv.c	6062	Index bad when pcreate timer fires. Format of additional string information is defined as: *a* *a* = channel id (hex)
cisupv.c	6063	Unable to allocate msg buffer. Format of additional string information is defined as: *a* *a* = channel id (hex)
cisupv.c	6064	Fail to queuem supervisor pcreate message. Format of additional string information is defined as: *a* *a* = channel id (hex)
cipcreat.c	6070	Unable to send signal in high priority.
cipcreat.c	6071	Unable to send signal for unclear priority.
ciswitch.c	6080	Switching attempts >THRESHOLD. Format of additional string information is defined as: *a* *a* = number of portswitch failures (hex)
ciswitch.c	6081	timreq1 failure on port switch DTR timing. Format of additional string information is defined as: *a b* *a* = portswitch status (hex) *b* = number of portswitch failures (hex)

FUNCTION	CODE	COMMENT *(continued)*
ciswitch.c	6082	timreq1 failure on port switch DTR on timing. Format of additional string information is defined as: *a b* *a* = portswitch status (hex) *b* = number of portswitch failures (hex)
ciswitch.c	6083	No standby mate device for port switch.
ciswitch.c	6084	Forced switch attempts > THRESOLD> Format of additional string information is defined as: *a* *a* = number of portswitch failures (hex)
ciswitch.c	6085	timreq1() failure on forced port switch. Format of additional string information is defined as: *a b* *a* = portswitch status (hex) *b* = number of portswitch failures (hex)
ciswitch.c	6086	Could not get UCB for forced switch cifoswitch.
ciswitch.c	6087	Device in wrong state to switch.
ciswitch.c	6088	Device in wrong state and so is mate to do forced switch. Format of additional string information defined as: *a b* *a* = portswitch status (hex) *b* = number of portswitch failures (hex)
ciswitch.c	6089	Could not get a timer to wait for connection forced switch. Format of additional string information is defined as: *a b* *a* = portswitch status (hex) *b* = number of portswitch failures (hex)
ciswitch.c	608a	Could not get UCB ciswfon.
ciswitch.c	608b	Could not switch, device not in good state. Format of additional string information is defined as: *a b* *a* = portswitch status (hex) *b* = number of portswitch failures (hex)
ciswitch.c	608c	Switch delay timer fired, other device not in a good state to switch.

FUNCTION	CODE	COMMENT *(continued)*
ciswitch.c	608d	Portswitch fail print turned off. Format of additional string information is defined as: SWITCH FAIL PRINT OFF
prstci3.c	60a0	Restore-timer fires. Format of additional string information is defined as: *a b c* *a* = command word 1 *b* = command word 1 *c* = command opcode
prmvci3.c	60b0	Cannot ci_opt record.
prmvci3.c	60b1	Cannot get MDCT record.
prmvci3.c	60b2	Invalid type of flshsrch.
prmvci3.c	60b8	Old Message should not be around. Format of additional string information is defined as: X'*a* X'*b* *a* = message pointer *b* = message type
prmvci3.c	60b9	Found write message on audit. Format of additional string information is defined as: X'*a* X'*b* *a* = message pointer *b* = ms_from field of message (hex)
prmvci3.c	60ba	Message for audit not found. Format of additional string information is defined as: X'*a* X'*b* *a* = message pointer *b* = io segment id
prmvci3.c	60bb	Unknown message typed owned. Format of additional string information is defined as: X'*a* X'*b* *a* = message pointer *b* = message type
prmvci3.c	60bc	Message audit for read message. Format of additional string information is defined as: X'*a* X'*b* *a* = message pointer *b* = ms_from field of message (hex)

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FUNCTION	CODE	COMMENT *(continued)*
cisupv.c	60c0	Process manager fails to respond to pcreate message. Format of additional string information is defined as: *a b c* *a* = device status (hex) *b* = channel id (hex) *c* = channel id flags (hex)
cisupv.c	60c1	Unable to get ucbrec by get_llarec call.
ciexec.c	60d0	cilogical pointer NULL.
ciexec.c	60d1	Could not get any device scratch area for switchable device.
ciexec.c	60d2	ci scratch pointer NULL.
ciqueue.c	60e0	Put queue type error. Format of additional string information is defined as: *a* *a* = CIH queue type (decimal)
ciqueue.c	60e1	Get queue type error. Format of additional string information is defined as: *a* *a* = CIH queue type (decimal)
ciqueue.c	60e2	Delete queue type error. Format of additional string information is defined as: *a* *a* = CIH queue type (decimal)
ciqueue.c	60e3	Dump queue type error. Format of additional string information is defined as: *a* *a* = channel flags (hex)
ciqueue.c	60e4	Unknown qtype type - ciniphy. Format of additional string information is defined as: *a* *a* = CIH queue type (hex)
ciqueue.c	60e5	Queue type error - cisrch. Format of additional string information is defined as: *a* *a* = CIH queue type (decimal)
ciqueue.c	60e6	Queue type error - cisrchp. Format of additional string information is defined as: *a* *a* = CIH queue type (decimal)

FUNCTION	CODE	COMMENT *(continued)*
ciqueue.c	60e7	Queue type error - ciinitq. Format of additional string information is defined as: *a* *a* = CIH queue type (decimal)
ciqueue.c	60e8	Queue damaged - cigetq. Format of additional string information is defined as: `CIH QUEUE DAMAGED` *a* *a* = CIH queue type (decimal)
prstci3.c	6201	Invalid type of restart / restore.
prstci3.c	6202	`pushq1()` returned a failure.
tycfrmt.c	6301	getopt failure.
tycfrmt.c	6302	get_llarec (ttopt_rec) failure.
tyrdwrt.c	6401	getopt failure.
tyrdwrt.c	6402	Read job failed after failures to access DMA slot.
tyrdwrt.c	6403	Write job failed after failures to access DMA slot.
prmvci3.c	6901	pushq1 returned failure.
ptrpci3.c	6a01	LDIN partition invalid for SETTY.
ptrpci3.c	6a02	LDIN partition invalid for GETTY.
ptrpci3.c	6a07	Iomap for SETTRAP OST failed.
ptrpci3.c	6a08	Iomap for GETTRAP OST failed.
ptrpci3.c	6a09	OST code unknown to handler.
ptrpaux.c	6b01	getopt failure in `tty_to_ci()`.
ptrpaux.c	6b02	get_llarec (ttopt_rec) failure in `tty_to_ci()`.
ptrpaux.c	6b03	getopt failure in `ci_to_tty()`.
ptrpaux.c	6b04	get_llarec (ttopt_rec) failure in `ci_to_tty()`.
prspci3.c	6d01	PCSD response opcode not recognized (Base priority).
prspci3.c	6d02	PCSD response opcode not recognized (High priority read).
prspci3.c	6d03	PCSD response opcode not recognized (High priority write).
prspci3.c	6d04	PCSD cmd-destination field not recognized.
prspci3.c	6d05	DMA slot removal failed after 'transmit long' PCSD.
prspci3.c	6d06	DMA slot removal failed after 'set options' PCSD.
prspci3.c	6d07	DMA slot removal failed after high priority 'transmit long' PCSD.
prspci3.c	6d08	DMA slot removal failed after 'rcv long' response. (Base priority).
prspci3.c	6d09	DMA slot removal failed after 'rcv long' response. (High priority).

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FUNCTION	CODE	COMMENT *(continued)*
tyrwrite.c	6e01	Received write-response but WCQ was empty.
tyrwrite.c	6e02	Fixed field in response different from that in the command.
tyrwrite.c	6e03	Unknown response case.
tyrshrt.c	6f01	Received rcv-short response but RCQ was empty.
tyrshrt.c	6f02	Fixed field in response different from that in the command.
tyrlong.c	7001	Received rcv-long response but RCQ was empty.
tyrlong.c	7002	DMA slot removal failed after rcv-long response.
tyrlong.c	7003	Read response received but RCQ was empty.
tyrlong.c	7005	Read response received but RCQ was empty.
tyrlong.c	7007	Read response received but RCQ was empty.
tysdrst.c	7101	SD_REST response received, but no command sent.
tysdrst.c	7102	User-completion-code error (Boot Restore).
tyrasync.c	7201	Connection reported but TTY not restored.
tyrasync.c	7202	Async report not recognized.
tyrasync.c	7203	Warning: connection reported but supervisor still up.
tyrasync.c	7204	getmdct failure.
tyrasync.c	7205	getopt failure.
tyrasync.c	7206	get_llarec (ttopt_rec) failure.
tyrasync.c	7207	get-llarec (cdopt_rec) failure.
tymsack.c	7301	No MSACK message is expected.
tymsack.c	7302	max number of P_CREAT attempts.
tymsack.c	7303	pushq1 failure.
tyswitch.c	7401	Wrong index passed to time-out routine.
tyswitch.c	7402	Unable to get mdct from data base.
tyswitch.c	7403	Unable to send command to PC via pushq1.
tyswitch.c	7404	Invalid combination of t_status flags.
tyswitch.c	7405	Unable to return to controlling PC after switchover failure.
tyswitch.c	7406	Both switchable subdevices are in the ACTIVE state, or unable to return to 'at rest' PC after switchover failure.
tyswitch.c	7407	Unable to handle S/D msg due to earlier 7402 error.
tyswitch.c	7408	Invalid cmd_type in SW msg.

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FUNCTION	CODE	COMMENT *(continued)*
tyswitch.c	7409	Invalid msg sub-type in a received IORID ms_type.
tyswitch.c	740a	Unable to send cmd to PC via call to pushg1().
tyswitch.c	740c	Unable to request timer via call to timereq1().
sttyproc.c	7a04	Unable to send cmd to PC because PC queues are full.
tytime.c	7501	tyrstsupv() - wrong timeout index.
tytime.c	7502	tyrstsupv() - no previous failure in P_CREAT attempt.
tytime.c	7503	tyrestto() - no pending restoral.
tytime.c	7504	tyrestto() - wrong timeout index.
tytime.c	7514	tyholdto() - wrong timeout index.
tytime.c	7521	tyoosto() - wrong timeout index.
tytime.c	7522	tyoosto() - SD_REMOVE request timed out.
tystrtsupv.c	7601	Max number of P_CREAT attempts.
tystrtsupv.c	7602	getmdct failure.
tyrsderr.c	7701	Intercharacter timeout detected.
tyrsderr.c	7702	Acknowledgement timeout detected.
tyrsderr.c	7703	Suspend-output timeout detected.
tyrsderr.c	7704	Line printer error detected.
tyrsderr.c	7706	Async report not recognized.
tyrcntrl.c	7801	Received disconnect response but no cmd sent.
tyrcntrl.c	7802	TY_CNTRL response not recognized.
tycmdproc.c	7902	Error in formatting PCSD command.
tycmdproc.c	7903	pushq1 returned failure.
tycmdproc.c	7904	DMA slot removal failed after PCSD command formatting error.
tycmdproc.c	7905	DMA slot removal failed after pushq1 failure.
sttyproc.c	7a01	DMA slot assignment failed.
sttyproc.c	7a02	pushq1() returned failure.
sttyproc.c	7a03	getpta() returned failure.
tyrslnk.c	7f01	Received rcv-short-linked response, but RCQ was empty.
tyrslnk.c	7f02	Fixed field in response different from that in the command.
tyrslnk.c	7f03	DMA slot removal failed after rcv-short-linked response.

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MAINT HANDLER

FUNCTION	CODE	COMMENT *(continued)*
mainthan.c	8000	ucbptr is zero.
mainthan.c	8001	Unit is not in correct state for diagnosis.
mainthan.c	8002	u_stat is in undefined state.
mainthan.c	8003	ucbptr is zero.
mainthan.c	8004	ucbptr is different than what came with the iopen.
mainthan.c	8005	Failed iolock.
mainthan.c	8006	Error on asndma1 function.
mainthan.c	8007	Handler is not in DMAEXP state.
mainthan.c	8008	Error on asndma1 function.
mainthan.c	8009	Error on pushing command into queue.
mainthan.c	800a	Error on timreq1 function.
mainthan.c	800b	ucbptr is zero.
mainthan.c	800c	ucbptr is different than what came with the iopen.
mainthan.c	800d	Unrecognized message from iop driver.
mainthan.c	800e	Function `uniolock()` returned FAIL during IOCLOSE processing.
mainthan.c	800f	Function `uniolock()` returned FAIL after `asndma1()` failure.
maintfun.c	8100	Detach from interrupts must be babbling.
maintfun.c	8101	Failed to detach from interrupts.
maintfun.c	8102	Byte cnt returned from IOP is not correct.
maintfun.c	8200	Detach from interrupts must be babbling.
maintfun.c	8201	Failed to detach from interrupts.
maintfun.c	8400	Wrong index for timeout.
maintfun.c	8401	Time out function and handler in wrong state.
maintfun.c	8500	Level is not equal to 1,2,3.
iomaint.c	8600	ucbptr is zero.
iomaint.c	8601	ucbptr is different then what came with iopen.
iomaint.c	8602	Maint command in NONINT state and not PIO.
iomaint.c	8603	Maint command in NONINIT state and not rmv or rst.
iomaint.c	8604	IOP driver has req dgn be aborted.
iomaint.c	8605	Maint handler is in wrong state for iomaint message.
iomaint.c	8606	Request for timreq failed for iomaint message.
iomaint.c	8607	Attach to interrupt failed.
iomaint.c	8608	Enable interrupts failed.
iomaint.c	8609	SDC timreq.
iomaint.c	860a	Not diag controller should not ask for this sdc attach.

FUNCTION	CODE	COMMENT *(continued)*
iomaint.c	860b	Attach to interrupt failed.
iomaint.c	860c	Enable interrupts failed.
iomaint.c	860d	DIAGC is diagnosing controller should not ask for attach.
iomaint.c	860e	Detach from interrupts.
iomaint.c	860f	DIAGC diagnosing controller should not not ask for detach.
iomaint.c	8610	Error in trying to remove unit.
iomaint.c	8611	Attach to interrupt failed.
iomaint.c	8612	Enable interrupts failed.
iomaint.c	8613	u_stat is undefined state.
iomaint.c	8614	Error trying to restore unit.
iomaint.c	8615	Error on timing req DGNDMA.
iomaint.c	8616	getdmaa returned an error.
iomaint.c	8617	Received WSETUP0 before DGNDMA.
iomaint.c	8618	Received WSETUP1 before WSETUP0.
iomaint.c	8619	Received DMAEND before WSETUP1.
iomaint.c	861a	Failed uniolock.
iomaint.c	861b	getdmaa returned an error.
iomaint.c	861c	DIAGC has sent bad data in statword and operword.
iomaint.c	861d	Unable to push a command into the queue.
iomaint.c	861e	Error on time request.
iomaint.c	861f	Function `uniolock()` returned FAIL during WSETUP0 processing.
iomaint.c	8620	Function uniolock() returned FAIL.
maintfun.c	8700	Took interrupt handler in wrong state.
maintfun.c	8701	Detach failed.
maintfun.c	87f1	Cannot convert iorid to ucblp.
DUI HANDLER		
pmsgdu3.c	9001	Unable to store a command sent by Application Kernel.
pmsgdu3.c	9002	pushq1 failure.
pmsgdu3.c	9003	DUI ERROR message received from Application Kernel.
pmsgdu3.c	9004	getpta failure.
pmsgdu3.c	9005	asndma failure for restore parameters.
pmsgdu3.c	9006	asndma failure for DUI table.
pmsgdu3.c	9007	getopt failure.
pmsgdu3.c	9010	Scratch area order entry not NULL (case D_START).

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FUNCTION	CODE	COMMENT *(continued)*
pmsgdu3.c	9011	Scratch area order entry not NULL (case D_STOP).
pmsgdu3.c	9012	Scratch area order entry not NULL (case D_RMRQAY).
prspdu3.c	9101	TN82 Software Error.
prspdu3.c	9102	Unrecognized Asynchronous report received.
prspdu3.c	9103	deldma1 failure.
prspdu3.c	9104	asndma1 failure.
prspdu3.c	9105	Received restore command response with null message pointer.
prspdu3.c	9106	Received successful remove cmd from unknown dui msg type.
prspdu3.c	9107	Remove command from D_STOP msg failed.
prspdu3.c	9108	Remove command from D_RMRQAK msg failed.
prspdu3.c	9109	Unsuccessful remove cmd response from unknown msg.
prspdu3.c	910a	Received response from unconditional remove.
prspdu3.c	910b	Received unsuccessful response from remove command.
prspdu3.c	910c	Received unrecognized response from PC.
prspdu3.c	910d	Received RESTORE command response of unknown origin.
prspdu3.c	910e	Received REMOVE command response of unknown origin.
prstdu3.c	9201	timreq1 failure.
prstdu3.c	9202	IODRV sent illegal restore case.
prmvdu3.c	9301	timreq1 failure.
duchgstate.c	9400	Received illegal usr_type.
duisendmsg.c	9500	Requested msg type to send to Application Kernel is illegal.
pinitdu3.c	9600	Invalid type of initializing.
duifuncts.c	9901	Cannot store PCSD command.
SCC AND SDL HANDLER		
prstcp3.c	a010	Restart during growth.
prstcp3.c	a012	Failure to obtain option block, restore fails.
prstcp3.c	a014	Restore fails, device failed growth.
prstcp3.c	a015	Restore fails, device has no memory status.
prstcp3.c	a017	Restart failed, failed to obtain option block.
prstcp3.c	a019	Received a restart during growth, restart fails.

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FUNCTION	CODE	COMMENT *(continued)*
prstcp3.c	a01a	Restart failed, device has no memory status.
prstcp3.c	a01c	Restart failed, device has no memory status.
prstcp3.c	a01d	Restore type unknown.
prstcp3.c	a01e	Restart failed, device failed growth.
prstcp3.c	a026	Unable to obtain PTA and SEGID for PCSD scratch area.
prstcp3.c	a027	Unable to obtain DMA job for PCSD scratch area.
prstcp3.c	a028	Unable to obtain DMA job for common scratch area.
prstcp3.c	a030	Invalid restore type.
pinitcp3.c	a100	Unknown initialization type.
pmsgcp3.c	a212	NULL common scratch area pointer.
pmsgcp3.c	a222	Unknown open type.
ptrpcp3.c	a302	NULL common scratch area pointer.
prspcp3.c	a414	Invalid Dial-out response - feature not supported.
prspcp3.c	a417	Unknown base-priority PCSD response type.
prspcp3.c	a418	Unknown high-priority PCSC response type.
prspcp3.c	a419	Invalid priority type.
prspcp3.c	a422	Unexpected restore-rsp from a restored PCSD.
prspcp3.c	a423	Unexpected restore-rsp from an OOS PCSD.
prspcp3.c	a431	Unexpected CONNECT-report.
prspcp3.c	a433	DIAL-OUT-FAILURE-report not yet supported.
prspcp3.c	a434	Invalid asynchronous report from PCSD.
prspcp3.c	a435	Failure to send RECEIVE jobs to PCSD.
prspcp3.c	a436	DISCONNECT-report not yet supported.
prspcp3.c	a442	Unable to allocate an input buffer.
prspcp3.c	a443	Unable to send a RECEIVE-command.
prspcp3.c	a445	No RECEIVE-jobs at PCSD.
prspcp3.c	a450	Failure to send RECEIVE-jobs to PCSD.
prspcp3.c	a451	Unexpected TRANSMIT-response.
prspcp3.c	a452	Error on TRANSMIT-response for XID ack packet - Dial-Up link.
prspcp3.c	a453	Error in TRANSMIT-job.
prspcp3.c	a461	Unexpected RECEIVE-response.
prspcp3.c	a462	Error in RECEIVE-job - Private line link.
prspcp3.c	a463	Error in RECEIVE-job - Dial-Up link.
prspcp3.c	a470	Hardware Error/Link disconnect report.
prspcp3.c	a471	Unknown Hardware Error.

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FUNCTION	CODE	COMMENT *(continued)*
prspcp3.c	a472	Invalid BX.25 level 2 protocol line address on TRANSMIT-job.
prspcp3.c	a473	PCSD microcode has detected an operational error. Format of additional information is defined as: *a b* *a* = word 1 of error response in hexadecimal *b* = word 2 of error response in hexadecimal
prspcp3.c	a474	BX.25 level 2 N2 count exceeded or number of retransmissions exceeded.
prspcp3.c	a475	Invalid asynchronous error report.
prspcp3.c	a476	Cause of Receive Frame-reject not known.
prspcp3.c	a477	Cause of Transmit Frame-reject not known.
prspcp3.c	a478	Aggregate one-count error type not known.
prspcp3.c	a479	Receive-frame reject.
prspcp3.c	a47a	Frame-reject probable line address conflict.
prspcp3.c	a47b	Transmit-frame reject.
prspcp3.c	a47c	This error type reported by DDCMP version.
prspcp3.c	a47d	Error in RESTORE-data - private line link.
prspcp3.c	a481	Unable to obtain timer entry for Dial-Up DT2.
prspcp3.c	a482	Unable to obtain PCSD option block from ECD - Dial-Up link.
prspcp3.c	a483	Unable to send RECEIVE-command for XID packet.
prspcp3.c	a484	Failure to send RECEIVE-jobs to PCSD.
prspcp3.c	a492	Unable to obtain PCSD option block from ECD - Dial-Up link.
prspcp3.c	a493	Unable to send TRANSMIT-command for XID acknowledgement packet.
prspcp3.c	a4a1	Unable to obtain timer entry for dial-up DT2.
prspcp3.c	a4b1	Unable to obtain timer entry for dial-up DT3.
prspcp3.c	a4d1	Unable to initialize Plants Measurement database.
prspcp3.c	a4d2	Unable to create PCSD record in PM database.
prspcp3.c	a4d3	Unable to read PCSD record in PM database.
prspcp3.c	a4d4	Unable to update PCSD record in PM database.
pdmod.c	a505	Unable to push PCSD command.

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FUNCTION	CODE	COMMENT *(continued)*
prmvcp3.c	a507	The go-out-of-service (GOOS) timer is active when a remove request is made. Format of additional information is defined as: *a b* *a* = word of pdstat, in hexadecimal *b* = short word of GOOS timer index, in hexadecimal
prmvcp3.c	a508	The GOOS timer is invalid.
ldmod.c	a611	Fatal error reported on the PCSD.
ldmod.c	a612	Reported PCSD error not recognized.
ldmod.c	a614	Multiple-active-link config not supported.
ldmod.c	a616	Invalid link configuration.
ldmod.c	a636	Invalid link configuration.
ldmod.c	a637	Multiple-active-link config not supported.
ldmod.c	a644	Multiple-active-link config not supported.
ldmod.c	a646	Invalid link configuration.
ldmod.c	a654	Multiple-active-link config not supported.
ldmod.c	a655	Invalid link configuration.
ldmod.c	a663	Multiple-active-link config not supported.
ldmod.c	a664	Invalid link configuration.
ldmod.c	a665	No ucblp available - simplex config.
ldmod.c	a666	No ucblp available - duplex config.
ldmod.c	a669	Failure to obtain ucblp.
ldmod.c	a66a	Failure to obtain second ucblp.
ldmod.c	a66b	No PCSD is active.
ldmod.c	a66c	Number of PCSDs is greater than 2.
ldmod.c	a66d	Second RID equal to NULL and not PCSD is active.
ldmod.c	a673	Multiple-active-link config not supported.
ldmod.c	a674	Invalid link configuration.
ldmod.c	a675	Reporting PCSD not the active unit.
ldmod.c	a681	Invalid remove-type.
ldmod.c	a684	Multiple-active-link config not supported.
ldmod.c	a685	Invalid link configuration.
ldmod.c	a691	NULL ucblp for simplex config.
ldmod.c	a692	Multiple-active-link config not supported.
ldmod.c	a693	No active device for duplex config.
ldmod.c	a694	NULL ucblp for duplex config.
ldmod.c	a699	Invalid link configuration.
ldmod.c	a6a0	Restore-failure in an OOS (internal state) PCSD.

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FUNCTION	CODE	COMMENT *(continued)*
ldmod.c	a6a3	Link-available-report from an OOS (internal state) PCSD.
ldmod.c	a6a4	Invalid stimulus for an OOS (internal state) PCSD.
ldmod.c	a6a5	Invalid stimulus for a GOOS (internal state) PCSD.
ldmod.c	a6aa	Connection-timeout for a restored (internal state) PCSD.
ldmod.c	a6ab	Invalid stimulus for a restored (internal state) PCSD.
ldmod.c	a6ae	Invalid stimulus for an active (internal state) PCSD.
ldmod.c	a6b2	Failure to get ucblp.
ldmod.c	a6b3	Invalid stimulus for a standby (internal state) PCSD.
ldmod.c	a6b4	Invalid stimulus for S1_RECOV state.
ldmod.c	a6b7	Invalid stimulus for S1_INIT state.
ldmod.c	a6ff	Invalid internal state for PCSD.
ldmod.c	a6be	Multiple-active-link config not supported.
ldmod.c	a6bf	Invalid link configuration.
ldmod.c	a6c5	Multiple-active-link config not supported.
ldmod.c	a6c6	Invalid link configuration.
ldmod.c	a6c8	Connection timeout for a simplex PCSD.
ldmod.c	a6c9	Connection timeout for a duplex config.
ldmod.c	a6ca	Multiple-active-link config not supported.
ldmod.c	a6cb	Invalid link configuration.
ldmod.c	a6d3	Multiple-active-link config not supported.
ldmod.c	a6d4	Invalid link configuration.
ldmod.c	a6d8	NULL timeout flag.
ldmod.c	a6d9	Timeout flag different from stored value.
ldmod.c	a6da	Failure to get ucblp.
ldmod.c	a6db	No record of previously active PCSD.
ldmod.c	a6dc	Both PCSDs are OOS or GOOS (internal state).

FUNCTION	CODE	COMMENT *(continued)*
ldmod.c	a6dd	Maximum number of timing periods.
ldmod.c	a6de	Maximum number of timing periods, NULL ucblp.
ldmod.c	a6df	Maximum number of timing periods, NULL ucblp.
ldmod.c	a6e1	Multiple-active-link config not supported.
ldmod.c	a6e2	Invalid link configuration.
cminit.c	a712	Unable to obtain PTA and SEGID for common scratch area.
cminit.c	a716	Unable to obtain MDCT record.
chmod.c	a831	Invalid output action for PUTCHAR input.
chmod.c	a832	Invalid current output state for PUTCHAR input.
chmod.c	a833	Invalid return value for choastrat().
chmod.c	a835	Invalid closing action for PUTCHAR input.
chmod.c	a836	Invalid return value from chorstrat.
chmod.c	a841	Invalid input action for GETCHAR input.
chmod.c	a842	Invalid current state for GETCHAR input.
chmod.c	a843	Invalid return value from chiastrat().
chmod.c	a845	Invalid closing action for GETCHAR input.
chmod.c	a846	Invalid return value from chirstrat().
chmod.c	a847	Unable to unlink buffer of a zero-length data packet from the common handler queue.
chmod.c	a854	Unsuccessful transfer of all input data of user's buffer.
chmod.c	a855	Unsuccessful transfer of all input data to user's buffer.
chmod.c	a856	Unsuccessful transfer of requested input data.
chmod.c	a857	Invalid return value from chirstrat().
chmod.c	a858	Invalid current input state for GETCHAR input.
chmod.c	a859	Invalid return value from chiastrat().

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FUNCTION	CODE	COMMENT *(continued)*
chmod.c	a85a	Error encountered in background data transfer.
chmod.c	a861	Invalid action for output procedure continuation.
chmod.c	a862	Invalid current output state.
chmod.c	a865	Invalid return value from `chorstrat()`.
chmod.c	a866	Invalid output state.
chmod.c	a867	Invalid return value from `chorstrat()`.
chmod.c	a868	Invalid return value from `choastrat()`.
chmod.c	a869	cphslfree is NULL.
chmod.c	a870	cphlkfree is NULL.
choastrat	a871	Invalid output state.
chiostrat.c	a881	More bytes of output than requested.
chiostrat.c	a882	Invalid output procedure flag.
chiostrat.c	a885	Partition in an invalid output state.
phmod.c	a910	Invalid system status being reported.
phmod.c	a941	Invalid return value from logical device handler.
mmmmod.c	aa00	`ioaddseg()` failed in case of IOREBOOT.
mmmmod.c	aa01	Invalid memory initialization type to `mminit()`.
mmmmod.c	aa10	Invalid init type.
mmmmod.c	aa20	Bad segment.
mmmmod.c	aa21	Queue is full.
mmmmod.c	aa30	`iogrowseg()` returned failure.
mmmmod.c	aa31	`ioaddseg()` returned failure.
mmmmod.c	aa40	`get_cell()` returned failure.
mmmod.c	aa41	No matching address and key found.
mmmod.c	aa50	Segment count greater than MAXSEGS.
mmmmod.c	aa51	`get_cell()` returned FAIL.
mmmmod.c	aa60	Bad segment.
mmmmod.c	aa70	`iogrowseg()` returned failure.
mmmmod.c	aa71	Bad segment.
mmmod.c	aa80	No matching address and key found.
mmmod.c	aa90	`get_cell()` returned failure.
mmmmod.c	aaa0	free_area number of cells zero.
mmmmod.c	aaa1	`iogrowseg()` returned failure.
mmmmod.c	aab0	vaddr and key invalid.
mmmmod.c	aab1	IODRV unable to grow segment.
pgrowcp3.c	ab00	Unknown growth type.

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FUNCTION	CODE	COMMENT *(continued)*
pgrowcp3.c	ab02	Failure to obtain option block, growth fails.
pgrowcp3.c	ab03	Degrow fails, memory not allocated at growth time.
pgrowcp3.c	ab04	Degrow fails, no memory status for this device.
pgrowcp3.c	ab06	Failure to obtain option block, boot restore fails.
pgrowcp3.c	ab08	Growth fails, memory allocation from SMC failed.
pgrowcp3.c	ab0a	Failed to obtain same ucb, boot restore fails.
chpcreat.c	ac01	No global free space for restio entry.
chpcreat.c	acf3	chpcreat returned SUCCESS.
chpcreat.c	acff	`findpid()` returned non-NULL.
x3send.c	af00	BX.25 level 3 cannot restart with far end.
x3send.c	af01	Unexpected failure to send control packet.
x3send.c	af02	Unexpected failure to send interrupt packet.
x3send.c	af03	Unexpected failure to send data packet.
NPH HANDLER		
psconn.c	b001	Invalid high level user protocol-id.
psconn.c	b002	Invalid application tag.
psdetach	b003	Unknown application tag.
psrstnp3	b101	DTE table full.
psinit	b302	RUNA record set_id not found.
psinit	b303	Failure to open cursor for sets.
pgrownp3.c	b500	Failure to obtain PCSD option block.
pgrownp3.c	b501	ACT internal state for DEGROW request.
pgrownp3.c	b502	Unknown internal state.
pgrownp3.c	b503	Unknown type of IODRV request.
pgrownp3.c	b504	Failure to get SEGID and PTA for buffer area.
pgrownp3.c	b505	Failure to allocate scratch memory.
pgrownp3.c	b506	Failure to get RESTORE PCSD.

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FUNCTION	CODE	COMMENT *(continued)*
pgrownp3.c	b507	Failure to get obtain ucblp.
pgrownp3.c	b508	Failure to allocate scratch memory.
pinitnp3.c	b580	Unknown type of IODRV request.
prstnp3.c	b600	ACT internal state for RESTORE request.
prstnp3.c	b601	Failure to RESTORE a PCSD.
prstnp3.c	b602	ACT internal state for NOT_IMPLICATED_RESTART request.
prstnp3.c	b603	Failure to RESTORE a PCSD.
prstnp3.c	b604	ACT internal state for IMPLICATED_RESTART request.
prstnp3.c	b605	Failure to obtain an IODRV timer element.
prstnp3.c	b606	Failure to RESTORE a PCSD.
prstnp3.c	b607	Unknown type of IODRV request.
prstnp3.c	b608	Memory allocation request in progress.
prstnp3.c	b609	Failed to allocate scratch memory.
prstnp3.c	b60a	Failure to get SEGID and PTA for PCSD scratch.
prstnp3.c	b60b	Failure to get DMA slot for PCSD scratch.
prstnp3.c	b60c	Failure to get DMA slot for buffer area.
prstnp3.c	b60d	Failure to obtain PCSD option block.
prstnp3.c	b60e	Somebody changed the option block.
prmvnp3.c	b680	ACT internal state for UNCONDITIONAL_REMOVE request.
prmvnp3.c	b681	Failure to send GO_OUT_OF_SERVICE command to PCSD.
prmvnp3.c	b682	Failure to obtain IODRV timer element.
prmvnp3.c	b683	Unknown type of IODRV request.
prmvnp3.c	b684	Unknown type of IODRV request.
prmvnp3.c	b685	Unknown internal state.
prmvnp3.c	b686	OOS internal state for (UN)CONDITIONAL_REMOVE request.
prmvnp3.c	b687	OOS internal state for HALF_REMOVE request.
prmvnp3.c	b688	OOS internal state for unknown type of IODRV request.
prspnp3.c	b700	Unexpected RESTORE response, ACT internal state.

FUNCTION	CODE	COMMENT *(continued)*
prspnp3.c	b701	Unexpected DIAL-OUT response, ACT internal state.
prspnp3.c	b702	Unknown PCSD response, ACT internal state.
prspnp3.c	b703	Unexpected RECEIVE report, INIT internal state.
prspnp3.c	b704	Unexpected TRANSMIT report, INIT internal state.
prspnp3.c	b705	Unexpected ASYNCHRONOUS report, INIT internal state.
prspnp3.c	b706	Unexpected DIAL-OUT response, INIT internal state.
prspnp3.c	b707	Unknown PCSD response, INIT internal state.
prspnp3.c	b708	Unexpected GO_OUT_OF_SERVICE response, OOS internal state.
prspnp3.c	b709	Unexpected RECEIVE report, OOS internal state.
prspnp3.c	b70a	Unexpected TRANSMIT report, OOS internal state.
prspnp3.c	b70b	Unexpected ASYNCHRONOUS report, OOS internal state.
prspnp3.c	b70c	Unexpected DIAL-OUT response, OOS internal state.
prspnp3.c	b70d	Unexpected PCSD response, OOS internal state.
prspnp3.c	b70e	Unexpected RESTORE response, RMVIP internal state.
prspnp3.c	b70f	Unexpected ASYNCHRONOUS_ERROR report, RMVIP internal state.
prspnp3.c	b710	Unexpected RECEIVE report, RMVIP internal state.
prspnp3.c	b711	Unexpected TRANSMIT report, RMVIP internal state.
prspnp3.c	b712	Unexpected ASYNCHRONOUS report, RMVIP internal state.
prspnp3.c	b713	Unexpected DIAL-OUT response, RMVIP internal state.
prspnp3.c	b714	Unknown PCSD response, RMVIP internal state.

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FUNCTION	CODE	COMMENT *(continued)*
prspnp3.c	b715	Unexpected response, memory request in progress.
prspnp3.c	b716	Unexpected response, memory request failed.
prspnp3.c	b717	Unknown internal state.
prspnp3.c	b720	No jobs queued for input on PCSD.
prspnp3.c	b721	Error on a RECEIVE job.
prspnp3.c	b730	Error on a TRANSMIT job.
prspnp3.c	b740	Failure to initialize buffers.
prspnp3.c	b741	Failure to initialize scratch areas.
prspnp3.c	b742	Failure to obtain PCSD option block.
prspnp3.c	b750	Failure to send RESTORE command to PCSD.
prspnp3.c	b760	Failure to remove an IODRV timer element.
prspnp3.c	b761	CONNECT report received on a connected PCSD.
prspnp3.c	b762	No jobs queued for input on PCSD.
prspnp3.c	b763	Invalid DATA-SET DISCONNECT report.
prspnp3.c	b765	Unknown ASYNCHRONOUS report.
prspnp3.c	b770	Hardware error, link disconnect report.
prspnp3.c	b771	Unknown hardware error.
prspnp3.c	b772	PCSD software error.
prspnp3.c	b773	CRC error report.
prspnp3.c	b774	Invalid line address on a RECEIVE job.
prspnp3.c	b775	Invalid line address on a TRANSMIT job.
prspnp3.c	b776	N2 count exceeded.
prspnp3.c	b777	Frame reject received.
prspnp3.c	b778	Frame reject received, cause unknown.
prspnp3.c	b779	Frame reject transmitted.
prspnp3.c	b77a	Frame reject transmitted, cause unknown.
prspnp3.c	b77b	Frame reject transmitted, probable line address conflict.
prspnp3.c	b77c	Aggregate one-count error type unknown.
prspnp3.c	b77d	This error type reported by DDCMP version.

FUNCTION	CODE	COMMENT *(continued)*
prspnp3.c	b77e	Error in RESTORE data.
prspnp3.c	b77f	Unknown asynchronous error report.
prspnp3.c	b790	Failure to allocate an input buffer.
prspnp3.c	b791	Failure to send a RECEIVE job to PCSD.
prspnp3.c	b792	RESTORE command timeout.
prspnp3.c	b793	CONNECT (level 2 protocol init.) timeout.
dimod.c	b800	Failure to get ucblp.
dimod.c	b805	Failure to push PCSD command.
dimod.c	b806	No jobs queued for input on PCSD.
dimod.c	b807	Failure to get ucblp.
dimod.c	b808	Failure to get ucblp.
plinit.c	ba01	Failure to get timer index from IODRV.
plrcv.c	ba11	Packet < 2 octets or invalid GFI or channel unassigned.
plrcv.c	ba12	Packet type invalid.
plrcv.c	ba13	RESTART INDICATION packet in state R3_RSTIND.
plrcv.c	ba14	Logical channel 0 in undefined state.
plrcv.c	ba15	RESTART INDICATION on non-zero channel in state P6_CLRREQ.
plrcv.c	ba16	RESTART INDICATION on non-zero channel in state D2_RESREQ.
plrcv.c	ba17	RESTART INDICATION on non-zero channel in state R2_RESREQ.
plrcv.c	ba18	Logical channel in an undefined state.
plrcv.c	ba19	Illegal channel and packet type combination.
plrcv.c	ba1a	Invalid packet length. Format of additional information is defined as: *a b c* *a* = packet type (hex) *b* = number of bytes in packet (decimal) *c* = channel number (decimal).
plcaccept.c	bb01	Logical channel in an undefined state.
pldacks.c	bb02	Logical channel in an undefined state.
plexdt.c	bb03	Logical channel in an undefined state.
plrest.c	bb04	Logical channel in an undefined state.
pldacks.c	bb05	Read substate of the logical channel undefined.
plrest.c	bb06	RESET INDICATION packet in state D3_RESIND.
plcconfi.c	bb11	CALL CONNECTED packet in state R2_RSTREQ.
plcindic.c	bb21	INCOMING CALL packet in state R2_RSTREQ or P6_CLRREQ.

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FUNCTION	CODE	COMMENT *(continued)*
plcindic.c	bb22	Originally-called DTE address is Out of Order in Call Redirection Notification facility.
plcindic.c	bb23	Originally-called DTE address is Busy in Call Redirection Notification facility.
plcindic.c	bb24	Non-supported reason for redirecting originally-called DTE address in Call Redirection Notification facility.
plcindic.c	bb25	Originally-called DTE address is Out of Order in Called Line Address Modified Notification facility.
plcindic.c	bb26	Originally-called DTE address is Busy in Called Line Address Modified Notification facility.
plcindic.c	bb27	Non-supported reason for modifying originally-called DTE address in Called Line Address Modified Notification facility.
pldiscr.c	bb41	Logical channel in an undefined state.
pldiscr.c	bb42	CLEAR INDICATION packet in state P7_CLRIND.
pldiscr.c	bb43	Logical channel in an undefined state.
pldiscr.c	bb44	CLEAR CONFIRMATION in state R2_RSTREQ or R3_RSTIND.
pldiscr.c	bb45	Logical channel in an undefined state.
plrest.c	bb70	RESET INDICATION packet in state R2_RSTREQ or R3_RSTIND.
plrest.c	bb71	RESET CONFIRMATION in state R2_RSTREQ or R3_RSTIND.
plrest.c	bb72	Reset received with diag code of "d-bit not supported."
plexdt.c	bb81	Logical channel in an undefined state.
plexdt.c	bb82	Logical channel in an undefined state.
plrndata.c	bc01	Logical channel in an undefined state.
plrndata.c	bc02	Invalid return code from "copypacket" function.
plrndata.c	bc03	Read substate of logical channel undefined.

FUNCTION	CODE	COMMENT *(continued)*
plrndata.c	bc05	Read substate of logical channel undefined.
plrndata.c	bc70	DATA packet in state R2_RSTREQ or R3_RSTIND.
plsndata.c	bd01	Send substate of logical channel undefined.
plsndata.c	bd02	Logical channel in an undefined state.
plsndata.c	bd03	Invalid return code from "edmacopy" function.
plsndata.c	bd04	Send substate of channel undefined.
plsndata.c	bd80	RR/RNR packet in state R2_RSTREQ or R3_RSTIND.
pltime.c	be00	T22 timer not active in state D2_RESREQ.
pltime.c	be01	T21 timer not active in state P2_CALLREQ.
pltime.c	be02	T23 timer not active in state P6_CLRREQ.
pltime.c	be03	T20 timer not active in state R2_RSTREQ.
TP HANDLER		
md_buffer.c	c101	Wait for a buffer; type is unknown.
md_buffer.c	c111	Failure to format an AK, EA, or RJ TPDU.
md_init.c	c121	Failure to read the "TPH 0" UCB ECD record.
md_init.c	c122	Failure to read the tphopt ECD record for TPH.
md_init.c	c131	Failure to read the tphopt ECD record for TPH.
md_init.c	c141	Request for memory from the IODRV failed.
md_timers.c	c142	Request for memory for TPH input buffer failed.
md_input.c	c201	Unknown address type for TS user data area.
md_input.c	c202	Unknown state of the TC input queue.
md_input.c	c211	Unknown address type for TS user data area.

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FUNCTION	CODE	COMMENT *(continued)*
md_input.c	c212	Unknown TPDU type for a NPH RDCMP.
md_input.c	c213	Unknown NPH return code value for a NPH RDCMP.
md_input.c	c221	Unknown address type for TS user data area.
md_input.c	c222	Unknown state of the TC input queue.
md_timers.c	c231	Timeout for unknown timer type.
md_timers.c	c232	Timeout for invalid TC local reference.
md_timers.c	c233	Invalid timeout element for timer type.
tl_buffers.c	c301	Cannot find TPDU on retain queue.
tl_buffers.c	c302	Retain queue is empty.
tl_conn.c	c311	DR TPDU not found in the retained queue.
tl_conn.c	c321	DR TPDU not found in the retained queue.
tl_conn.c	c331	CR TPDU not found in the retained queue.
tl_conn.c	c332	Invalid TC state for a N-CONNECT confirmation.
tl_conn.c	c333	DR TPDU not found in the retained queue.
nsi.c	c341	Unknown NPH indication.
nsi.c	c342	tc-data structure queued twice on DTE priority queue.
nsi.c	c343	tc-data structure queued twice on DTE priority queue.
tl_data.c	c401	Invalid event for first TPDU received.
tl_data.c	c411	DR TPDU not found in the retained queue.
tl_data.c	c421	Unknown event for tl_dt_procedure.
tl_data.c	c422	Retained DT TPDU mismatches lower window.
tl_data.c	c431	DT TPDU not found in the retained queue.
tl_data.c	c432	DT TPDU not found in the retained queue.
tl_data.c	c433	CC TPDU not found in the retained queue.

FUNCTION	CODE	COMMENT *(continued)*
tl_data.c	c434	DR TPDU not found in the retained queue.
tl_disc.c	c441	Invalid TC state for a DR TPDU.
tl_disc.c	c451	Invalid TC state for a N-DISCONNECT indication.
tl_interf.c	c461	Unknown incoming event.
tl_interf.c	c462	Unsupported class.
tl_interf.c	c471	Unknown TPDU type.
tl_interf.c	c481	Fatal TPH error for a reassignment.
tl_misc.c	c491	Changing TC state to an invalid state.
tl_misc.c	c4a1	TPDU not found in the retained queue.
tl_timers.c	c501	Unknown timer type.
tl_timer.c	c502	Failure to start timer.
tl_timers.c	c511	Unknown timer type.
tl_timers.c	c512	Failure to stop timer.
tl_timers.c	c541	Invalid state.
tl_timers.c	c551	Invalid state.
tl_timers.c	c561	Unknown timer type.
tl_reset.c	c581	Failure to format RJ TPDU.
tsi.c	c591	No tsapinfo ECD record for specified TSAP.
tsi.c	c592	Failure to open ECD for tsapinfo records.
SP HANDLER		
s_req_buffer_md()	d101	Requested more than a segment of memory.
s_init_all_buffers_md()	d103	Handler initialization error.
s_init_s_con_data_md()	d104	Handler not initialized yet.
s_rel_con_data_md()	d105	NULL ptr for ptr to connection data structure.
s_rel_con_data_md()	d106	Connection data structure corrupted.
s_rel_con_data_md()	d107	Connection data structure already returned to map.
s_rel_con_data_md()	d108	Too many connection data structures returned.
s_reuse_con_data_md()	d109	Connection data structure ptr is NULL.
s_reuse_con_data_md()	d10a	Connection data structure corrupted.
s_reuse_con_data_md()	d10b	Expedited service selected.

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FUNCTION	CODE	COMMENT *(continued)*
s_reuse_con_data_md()	d10c	No reuse in effect.
s_reuse_con_data_md()	d10d	Duplicate entry in no reuse structure.
s_reuse_con_data_md()	d10e	Duplicate entry in reuse structure.
s_reuse_con_data_md()	d10f	Too many connections allocated.
s_find_ind_function_md()	d110	Session Protocol Handler not ready.
s_attach()	d111	Session Protocol Handler not ready.
s_detach()	d112	Session Protocol Handler not ready.
s_reuse_con_data_md()	d113	Illegal state of Session Protocol Machine.
s_o_t_req_connect_md()	d201	Call to t_connect() failed.
s_o_t_rsp_connect_md()	d202	Call to t_respond() failed.
s_o_t_disconnect_md()	d203	Call to t_disconnect() failed.
pinitsp3	d301	Attach to local TSAP failed.
pmsgsp3	d302	Invalid message type.
pmsgsp3	d303	Message had bad record id.
pmsgsp3	d304	lla_rdget call failed.
pmsgsp3	d305	Attach to local TSAP failed.
pmsgsp3	d306	Illegal ECD operation reported.
s_o_norm_spdu_send_md	d402	Failed attempt to send CN SPDU.
s_o_norm_spdu_send_md	d403	Illegal state to send SPDU.
s_o_norm_spdu_send_md	d404	Failed attempt to send SPDU.
s_o_norm_spdu_send_md	d405	Illegal state to send SPDU.
s_o_norm_spdu_send_md	d406	Failed attempt to send AA or AB SPDU.
s_o_norm_spdu_send_md	d407	Illegal state to send AA or AB SPDU.
s_o_norm_spdu_send_md	d408	Illegal SPDU type.
s_o_ssdu_send_md()	d409	Illegal use of segmenting.
s_o_ssdu_send_md()	d40a	Illegal state for sending unsegmented data.
s_o_ssdu_send_md()	d40b	Illegal ssdu_segment value.
s_o_ssdu_send_md()	d40c	Illegal ssdu_segment value.
s_o_ssdu_send_md()	d40d	Illegal state for sending segmented data.
s_o_ssdu_send_md()	d40e	tsdu size <= GTSEGDTHDR.
s_send_tsc_md()	d40f	Failed attempt to send AA or AB SPDU.
s_send_tsc_md()	d410	Session Protocol Machine in illegal state.
s_send_ack_md()	d411	Inconsistent number of t_acknowledges outstanding.
s_send_ack_md()	d412	Inconsistent number of t_acknowledges.
s_send_ack_md()	d413	Inconsistent number of t_acknowledges.

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FUNCTION	CODE	COMMENT *(continued)*
s_send_ack_md()	d414	Number of t_acknowledges > NUMSEGHEADS.
s_send_ack_md()	d415	Inconsistent number of t_acknowledges.
s_send_ack_md()	d416	Inconsistent number of t_acknowledges.
s_send_ack_md()	d417	Inconsistent number of t_acknowledges.
s_send_ack_md()	d418	Number of t_acknowledges > NUMSEGHEADS.
s_send_ack_md()	d419	Inconsistent number of t_acknowledges.
s_send_ack_md()	d41a	Inconsistent number of t_acknowledges.
s_send_ack_md()	d41b	Inconsistent number of acknowledges.
s_send_ack_md()	d41c	Inconsistent number of acknowledges.
s_send_ack_md()	d41d	Inconsistent number of acknowledges.
s_send_ack_md()	d41e	Session Protocol Machine in illegal state.
s_unseg_send_md()	d41f	Transport send failed.
s_unseg_send_md()	d420	Transport send failed.
s_seg_send_md()	d421	Data transmission error - not enough user data.
s_seg_send_md()	d422	Data transmission error - not enough user data.
s_seg_send_md()	d423	Data transmission error.
s_seg_send_md()	d424	Data transmission error.
s_o_exp_spdu_send_md()	d425	Expedited data transmission error at transport layer.
s_o_exp_spdu_send_md()	d426	Expedited data transmission error at session layer.
s_o_ssdu_send_md()	d427	Length of user data <= 0.
s_o_ssdu_send_md()	d428	SS-user tried to send after S_PARTIAL response.
s_o_ssdu_send_md()	d429	SS-user tried to send after S_PARTIAL response.
s_send_ack_md()	d42a	Bad state for orderly release.
s_send_ack_md()	d42b	Unexpected acknowledgement.
s_i_spdu_rec_md()	d501	Failed while reading SPDU header.
s_i_spdu_rec_md()	d502	Failed while reading concatenated SPDU header.
s_i_spdu_rec_md()	d503	Extended concatenation not supported.
s_i_spdu_rec_md()	d504	Invalid return from s_i_process_spdu_md().
s_i_spdu_rec_md()	d505	Invalid return from s_i_process_spdu_md().

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FUNCTION	CODE	COMMENT *(continued)*
s_i_spdu_rec_md()	d506	Wrong state to receive a new SPDU.
s_i_decode_length()	d507	SPDU header too long for input buffer.
s_i_decode_length()	d508	Length of SPDU header wrong.
s_i_decode_length()	d509	Length of SPDU header wrong.
s_i_decode_length()	d50a	Unrecognized return code from t_receive().
s_i_PI_buf_get_md()	d50b	Failure to get PG length in SPDU header.
s_i_PI_buf_get_md()	d50c	Failure to get PG data in SPDU header.
s_i_header_get_md()	d50d	SPDU header too long for input buffer.
s_i_header_get_md()	d50e	Wrong number of bytes returned from t_receive().
s_i_header_get_md()	d50f	Unrecognized return code from t_receive().
s_i_header_get_md()	d510	Invalid length of Parameter Group data.
s_i_header_get_md()	d511	User data indicated, but reached end of SPDU.
s_i_header_get_md()	d512	Invalid SPDU header length.
s_i_header_get_md()	d513	Too many bytes in SPDU header.
s_i_header_get_md()	d514	End of SPDU header, wrong length.
s_i_data_get_md()	d515	SPDU header too long for input buffer.
s_i_data_get_md()	d516	Number of bytes in SPDU header greater than indicated.
s_i_data_get_md()	d517	Wrong number of bytes returned from t_receive().
s_i_data_get_md()	d518	End of SPDU header, wrong length.
s_i_data_get_md()	d519	Invalid return code from t_receive().
s_i_type_spdu_decode_md()	d51a	Illegal concatenation.
s_i_type_spdu_decode_md()	d51b	Illegal SPDU type.
s_i_length_PG_md()	d51c	SPDU header too long for input buffer.
s_i_length_PG_md()	d51d	Wrong number of bytes returned from t_receive().
s_i_length_PG_md()	d51e	While reading LONG SPDU header got return code of T_NEW_TSDU.
s_i_length_PG_md()	d51f	While reading LONG SPDU header got return code of T_READ_END.
s_i_length_PG_md()	d520	While reading LONG SPDU header got invalid return code.
s_i_length_PG_md()	d521	SPDU header too long for input buffer; SPDU type is CN, AC, or RF.

FUNCTION	CODE	COMMENT *(continued)*
s_i_length_PG_md()	d522	SPDU header too long for input buffer; SPDU type is GT, OUR_DT, PT, FN, DN, AA, or AB.
s_i_length_PG_md()	d523	Unknown SPDU type header.
s_i_trc_md()	d524	Wrong byte count from t_receive_complete().
s_i_trc_md()	d525	Illegal type of SPDU received.
s_i_trc_md()	d526	Illegal length of SPDU header.
s_i_trc_md()	d527	Failed to process concatenated SPDU.
s_i_trc_md()	d528	Illegal concatenation.
s_i_trc_md()	d529	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d52a	Illegal concatenation.
s_i_trc_md()	d52b	Failed to read in SPDU header.
s_i_trc_md()	d52c	Failed to read in concatenated SPDU header.
s_i_trc_md()	d52d	Illegal concatenation.
s_i_trc_md()	d52e	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d52f	Invalid return from s_i_PI_buf_get_md().
s_i_trc_md()	d530	Illegal SPDU type.
s_i_trc_md()	d531	Invalid return code from t_receive_complete().
s_i_trc_md()	d532	Wrong byte count from t_receive_complete().
s_i_trc_md()	d533	Failed while reading SPDU header.
s_i_trc_md()	d534	Illegal concatenation.
s_i_trc_md()	d535	Failed while reading concatenated SPDU.
s_i_trc_md()	d536	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d537	Invalid return from s_i_PI_buf_get().
s_i_trc_md()	d538	LONG SPDU header;t_receive returned T_NEW_TSDU.
s_i_trc_md()	d539	LONG SPDU header;t_receive returned T_READ_END.
s_i_trc_md()	d53a	Invalid return from t_receive_complete().
s_i_trc_md()	d53b	Wrong byte count from t_receive_complete().

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FUNCTION	CODE	COMMENT *(continued)*
s_i_trc_md()	d53c	Invalid length of SPDU header.
s_i_trc_md()	d53d	Have USER DATA;SPDU header length wrong.
s_i_trc_md()	d53e	Illegal concatenation.
s_i_trc_md()	d53f	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d540	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d541	Failed while reading SPDU header.
s_i_trc_md()	d542	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d543	Illegal concatenation.
s_i_trc_md()	d544	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d545	Invalid return from s_i_PI_buf_get_md().
s_i_trc_md()	d546	USERDATA indicated, none present.
s_i_trc_md()	d547	USERDATA indicated, none present.
s_i_trc_md()	d548	Parameter Group length != 0; wrong.
s_i_trc_md()	d549	Wrong Parameter Group length.
s_i_trc_md()	d54a	Invalid return from t_receive_complete().
s_i_trc_md()	d54b	Illegal concatenation.
s_i_trc_md()	d54c	Failed while reading head of concatenated SPDU.
s_i_trc_md()	d54d	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d54e	Failed while reading Parameter Groups of SPDU header.
s_i_trc_md()	d54f	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d550	Illegal concatenation.
s_i_trc_md()	d551	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d552	Invalid return from s_i_PI_buf_get_md().
s_i_trc_md()	d553	Incorrect byte count in SPDU header.
s_i_trc_md()	d554	Invalid return from t_receive_complete().
s_i_trc_md()	d555	Bad byte count from t_receive_complete().

FUNCTION	CODE	COMMENT *(continued)*
s_i_trc_md()	d556	USER DATA; bad byte count in SPDU header.
s_i_trc_md()	d557	Illegal concatenation.
s_i_trc_md()	d558	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d559	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d55a	Failed while reading Parameter Groups of SPDU header.
s_i_trc_md()	d55b	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d55c	Illegal concatenation.
s_i_trc_md()	d55d	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d55e	Failed while reading Parameter Groups of SPDU header.
s_i_trc_md()	d55f	LONG SPDU header;t_receive returned T_NEW_TSDU.
s_i_trc_md()	d560	LONG SPDU header;t_receive returned T_READ_END.
s_i_trc_md()	d561	Invalid return from t_receive_complete().
s_i_trc_md()	d562	Invalid return from t_receive_complete().
s_i_trc_md()	d563	Invalid return from t_receive_complete().
s_i_trc_md()	d564	Illegal receive state.
s_i_size_check_md()	d565	SPDU header too long for input buffer; SPDU type is CN, AC, or RF.
s_i_size_check_md()	d566	SPDU header too long for input buffer; SPDU type is OUR_DT, PT, FN, DN, AA, or AB.
s_i_size_check_md()	d567	SPDU header too long for input buffer; SPDU type is GT.
s_i_size_check_md()	d568	Unknown SPDU type header.
s_i_last_norm_data_md()	d569	Invalid return code from t_receive().
s_i_last_norm_data_md()	d56a	Illegal state - receive data.
s_i_more_norm_data_md()	d56b	Invalid return code from t_receive().
s_i_more_norm_data_md()	d56c	Illegal state - receive data.
s_i_rec_norm_data_md()	d56d	Invalid return code from t_receive().

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FUNCTION	CODE	COMMENT *(continued)*
s_i_rec_norm_data_md()	d56e	Invalid return code from t_receive().
s_i_rec_norm_data_md()	d56f	Illegal state - receive data.
s_i_process_spdu_md()	d570	Bad byte count from t_receive().
s_i_process_spdu_md()	d571	Unknown SPDU type.
s_i_process_spdu_md()	d572	Unknown SPDU type.
s_i_process_spdu_md()	d573	Illegal length of AB SPDU.
s_i_process_spdu_md()	d574	Illegal SPDU header length.
s_i_process_spdu_md()	d575	Failed while reading Parameter Groups of SPDU header.
s_i_process_spdu_md()	d576	Illegal concatenation.
s_i_process_spdu_md()	d577	Invalid return from s_i_PI_buf_get_md().
s_i_process_spdu_md()	d578	Illegal state - receive SPDU header.
s_i_concat_check_md()	d579	Illegal concatenation with a GT SPDU.
s_i_concat_check_md()	d57a	Illegal concatenation.
s_i_trc_md()	d57b	Illegal length of AB SPDU.
s_i_trc_md()	d57c	Invalid return code from t_receive().
s_i_trc_md()	d57d	Bad byte count while reading AB SPDU.
s_i_trc_md()	d57e	Invalid return from t_receive_complete() while reading AB SPDU.
s_i_process_spdu_md()	d57f	Invalid return code while reading AB SPDU.
s_i_process_spdu_md()	d580	Bad byte count from t_receive().
s_i_trc_md()	d581	Bad state for orderly release.
s_i_rec_norm_data_md()	d581	Bad state for orderly release.
s_i_ac_spdu_mi()	d601	Session Protocol Machine in (illegal) state STA01C.
s_i_ac_spdu_mi()	d602	Parsing of SPDU failed.
s_i_ac_spdu_mi()	d603	No transport connection exists.
s_i_ac_spdu_mi()	d604	Expected t_connect_confirm.
s_i_ac_spdu_mi()	d605	Invalid Session Protocol Machine state.
s_ac_parse_mi()	d606	Invalid token setting in AC SPDU.
s_ac_parse_mi()	d607	Invalid parameter group in AC SPDU.
s_ac_parse_mi()	d608	Parsing of AC SPDU failed.
s_ac_parse_mi()	d609	AC SPDU functional units specified incorrectly.
s_cn_spdu_mi()	d60a	Expected Abort Accept or Transport Disconnect Indication.

FUNCTION	CODE	COMMENT *(continued)*
s_cn_spdu_mi()	d60b	Receiving side not transport acceptor.
s_cn_spdu_mi()	d60c	Expected t_connect_confirm.
s_cn_spdu_mi()	d60d	No transport connection exists.
s_cn_spdu_mi()	d60e	Invalid Session Protocol Machine state.
s_cn_parse_mi()	d60f	Invalid token setting in CN SPDU.
s_cn_parse_mi()	d610	Invalid duplex / half duplex choice in CN SPDU.
s_cn_parse_mi()	d611	SSAP length exceeds S_MAX_SSAP_ID_LEN.
s_cn_parse_mi()	d612	Invalid parameter group in CN SPDU.
s_cn_parse_mi()	d613	Parsing of CN SPDU failed.
s_i_rf_spdu_mi()	d614	Session Protocol Machine in illegal state (STA01C).
s_i_rf_spdu_mi()	d615	Session Protocol Machine in illegal state (STA01).
s_i_rf_spdu_mi()	d616	Expected t_connect_confirm.
s_i_rf_spdu_mi()	d617	Session Protocol Machine in invalid state.
s_rf_parse_mi()	d618	duplex / half duplex option not specified in RF SPDU.
s_rf_parse_mi()	d619	Invalid Parameter Group in RF SPDU.
s_rf_parse_mi()	d61a	Parsing of RF SPDU failed.
s_i_c_req_mi()	d61b	User data length exceeds S_U_512_LEN.
s_i_c_req_mi()	d61c	Failed attempt to construct CN SPDU.
s_i_c_req_mi()	d61d	Failed attempt to get a transport connection.
s_i_c_req_mi()	d61e	User data length exceeds S_U_512_LEN.
s_i_c_req_mi()	d61f	Failed attempt to send CN SPDU.
s_i_c_req_mi()	d620	Failed attempt to construct CN SPDU.
s_i_c_req_mi()	d621	Sender not transport connection initiator.
s_i_c_req_mi()	d622	Session Protocol Machine in invalid state to receive connection request.
build_cn_spdu_mi()	d623	Failed attempt to add the connection id parameter field to CN spdu.
build_cn_spdu_mi()	d624	Invalid token setting in building CN SPDU.
build_cn_spdu_mi()	d625	Invalid duplex / half duplex choice.
build_cn_spdu_mi()	d626	Failed attempt to add the session user requirements field to CN spdu.

FUNCTION	CODE	COMMENT *(continued)*
build_cn_spdu_mi()	d627	Calling ssap identifier length > S_MAX_SSAP_ID_LEN.
build_cn_spdu_mi()	d628	Called ssap identifier length > S_MAX_SSAP_ID_LEN.
add_conn_id_mi()	d629	User reference parameter length > S_REF_MAX_LEN.
add_conn_id_mi()	d62a	Common reference length parameter > S_REF_MAX_LEN.
add_conn_id_mi()	d62b	Additional reference length parameter > S_REF_MAX_LEN.
add_cn_rf_sess_req_mi()	d62c	Invalid duplex/half duplex setting.
add_cn_rf_sess_req_mi()	d62d	Invalid expedited data setting.
add_cn_rf_sess_req_mi()	d62e	Invalid CCITT subset selected.
add_ac_sess_req_mi()	d62f	Invalid duplex/half duplex setting.
add_ac_sess_req_mi()	d630	Invalid expedited data setting.
add_ac_sess_req_mi()	d631	Invalid CCITT subset selected.
s_i_cacc_rsp_connect_mi()	d632	Expected TConnect Confirm.
s_i_cacc_rsp_connect_mi()	d633	User Data length > S_U_512_LEN.
s_i_cacc_rsp_connect_mi()	d634	Failed attempt to construct AC SPDU.
s_i_cacc_rsp_connect_mi()	d635	Failed attempt to send AC SPDU.
s_i_cacc_rsp_connect_mi()	d636	Session Protocol Machine in invalid state.
build_ac_spdu_mi()	d637	Failed attempt to add connection identifier parameter group to AC SPDU.
build_ac_spdu_mi()	d638	Invalid token setting.
build_ac_spdu_mi()	d639	Attempt to set data token in duplex mode.
build_ac_spdu_mi()	d63a	Invalid token holder setting.
build_ac_spdu_mi()	d63b	Failed to add session user requirements parameter items to an AC SPDU.
build_ac_spdu_mi()	d63c	Called ssap length > S_MAX_SSAP_ID_LEN.
s_i_crej_rsp_connect_mi()	d63d	Expected TConnect Confirm.
s_i_crej_rsp_connect_mi()	d63e	User Data length > S_U_512_LEN.
s_i_crej_rsp_connect_mi()	d63f	Failed attempt to construct RF SPDU with reuse set.
s_i_crej_rsp_connect_mi()	d640	Failed attempt to send RF SPDU with reuse set.
s_i_crej_rsp_connect_mi()	d641	Failed attempt to construct RF SPDU with no reuse set.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_crej_rsp_connect_mi()	d642	Failed attempt to send RF SPDU with no reuse set.
s_i_crej_rsp_connect_mi()	d643	Session Protocol Machine in invalid state.
build_rf_spdu_mi()	d644	Invalid reason code with User Data.
build_rf_spdu_mi()	d645	Failed attempt to add connection id parameter group field to RF SPDU.
build_rf_spdu_mi()	d646	Invalid reason code with session user requirements.
build_rf_spdu_mi()	d647	Failed attempt to add session user requirements field to RF SPDU.
build_rf_spdu_mi()	d648	Illegal reason code.
s_i_t_con_connect_mi()	d649	Failed attempt to send CN SPDU.
s_i_t_con_connect_mi()	d64a	Expected T_Disconnect or Abort Accept indication.
s_i_t_con_connect_mi()	d64b	No transport connection.
s_i_t_con_connect_mi()	d64c	Illegal state for Transport Connection Confirm.
s_i_tc_ind_mi()	d64d	Failed attempt to send T_CONNECT_RESPONSE.
s_i_tc_ind_mi()	d64e	Transport connection already established.
s_i_tc_ind_mi()	d64f	Expected Abort Accept or T_Disconnect Indication.
s_i_tc_ind_mi()	d650	Illegal or invalid state to receive Transport Connection Indication.
build_ac_spdu_mi()	d651	Invalid token holder setting.
build_ac_spdu_mi()	d652	Calling ssap identifier length > S_MAX_SSAP_ID_LEN.
s_req_connect()	d701	Indication function not specified.
s_req_connect()	d702	No connection data structure available.
s_req_connect()	d703	Session connection set up failed.
s_acc_con_res()	d704	Error processing Session Accept Request.
s_rej_con_res()	d705	Error processing Session Connect Reject.
s_send_normal()	d706	Error processing Send Normal Data Request.
s_receive()	d707	Error processing Receive Request.

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FUNCTION	CODE	COMMENT *(continued)*
s_send_exp()	d708	Error processing Send Expedited Data Request.
s_give_tokens()	d709	Error processing Give Tokens Request.
s_please_tokens()	d70a	Error processing Please Tokens Request.
s_req_rel()	d70b	Error processing Release Request.
s_resp_rel()	d70c	Error processing Release Response Request.
s_u_abort()	d70d	Error processing User Abort Request.
s_acc_con_res()	d70e	Illegal connection data structure pointer.
s_rej_con_res()	d70f	Illegal connection data structure pointer.
s_send_normal()	d710	Illegal connection data structure pointer.
s_receive()	d711	Illegal connection data structure pointer.
s_send_exp()	d712	Illegal connection data structure pointer.
s_give_tokens()	d713	Illegal connection data structure pointer.
s_please_tokens()	d714	Illegal connection data structure pointer.
s_req_rel()	d715	Illegal connection data structure pointer.
s_rel_resp()	d716	Illegal connection data structure pointer.
s_u_abort()	d717	Illegal connection data structure pointer.
s_set_uinfo()	d718	Invalid pointer to connection data structure.
s_set_timer_md()	d801	Abort timer already active on this connection.
s_gt_timer_md()	d802	Give tokens timer already active on this connection.
s_tnewtsdu_timer_md()	d803	tnewtsdu timer already active on this connection.
s_stop_timer_md()	d804	Abort timer not active on this connection.
s_timer_exp_md()	d805	Unknown timer type.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_fn_spdu_mi()	d901	Illegal state (STA01C) to receive FN SPDU.
s_i_fn_spdu_mi()	d902	Illegal reuse after SPDU collision.
s_i_fn_spdu_mi()	d903	Illegal reuse during data transfer.
s_i_fn_spdu_mi()	d904	Illegal state to receive FN SPDU.
s_fn_parse_mi()	d905	User Data > S_U_512_LEN.
s_fn_parse_mi()	d906	Illegal Parameter Identifier.
s_fn_parse_mi()	d907	FN SPDU parsing failed.
s_i_dn_spdu_mi()	d908	Illegal state (STA01C) to receive DN SPDU.
s_i_dn_spdu_mi()	d909	DN SPDU parsing failed.
s_i_dn_spdu_mi()	d90a	DN SPDU parsing error or S_P69_MI failed.
s_i_dn_spdu_mi()	d90b	Illegal state to receive DN SPDU.
s_dn_parse_mi()	d90c	User Data > S_U_512_LEN.
s_dn_parse_mi()	d90d	Illegal Parameter Identifier.
s_dn_parse_mi()	d90e	DN SPDU parsing failed.
s_i_ab_spdu_mi()	d90f	AB SPDU parsing failed.
s_i_ab_spdu_mi()	d010	Expected TDisconnect Indication.
s_i_ab_spdu_mi()	d911	Failed attempt to send Abort Accept SPDU.
s_i_ab_spdu_mi()	d912	Failed attempt to send Abort Accept SPDU.
s_i_ab_spdu_mi()	d913	Illegal/invalid state to receive AB SPDU.
s_ab_parse_mi()	d914	Missing transport disconnect parameter.
s_ab_parse_mi()	d915	Illegal parameter group or length.
s_ab_parse_mi()	d916	Illegal User Data in AB SPDU.
s_ab_parse_mi()	d917	REFLCT parameter not allowed.
s_ab_parse_mi()	d918	Illegal Parameter Identifier.
s_ab_parse_mi()	d919	AB SPDU parsing failed.
s_i_aa_spdu_mi()	d91a	Illegal state (STA01C) to receive AA SPDU.
s_i_aa_spdu_mi()	d91b	Expected TDisconnect Indication.
s_i_aa_spdu_mi()	d91c	Illegal state to receive AA SPDU.
s_i_req_mi()	d91d	Expected Abort Accept, got Release Request.
s_i_req_mi()	d91e	User Data Length > S_U_512_LEN.
s_i_req_mi()	d91f	Failed attempt to send FN, no reuse, SPDU.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_req_mi()	d920	Data token not available.
s_i_req_mi()	d921	User Data Length > S_U_512_LEN.
s_i_req_mi()	d922	Failed attempt to send FN SPDU, no reuse.
s_i_req_mi()	d923	Failed attempt to send FN SPDU, with reuse.
s_i_req_mi()	d924	Data token error.
s_i_req_mi()	d925	Illegal state to receive Release Request.
s_i_racc_rsp_release_mi()	d926	Expected Abort Accept, got Release Accept Request.
s_i_racc_rsp_release_mi()	d927	Illegal value for finish request response.
s_i_racc_rsp_release_mi()	d928	User Data Length > S_U_512_LEN.
s_i_racc_rsp_release_mi()	d929	Failed attempt to send DN SPDU.
s_i_racc_rsp_release_mi()	d92a	Failed attempt to send DN SPDU.
s_i_racc_rsp_release_mi()	d92b	Failed attempt to send DN SPDU.
s_i_racc_rsp_release_mi()	d92c	Illegal state to receive Release Accept Request.
s_i_racc_rsp_release_mi()	d92d	Null connection data structure pointer.
s_i_racc_rsp_release_mi()	d92e	Null connection data structure pointer.
s_i_u_abort_mi()	d92f	User Data Length > S_U_512_LEN.
s_i_td_ind_mi()	d933	Illegal state to receive TDisconnect Indication.
s_i_timer_exp_mi()	d934	Illegal state for abort timer to expire.
s_i_u_abort_mi()	d935	Illegal state.
s_i_r_req_mi()	d936	Failed to get buffer for FN SPDU.
s_i_r_req_mi()	d937	Failed to get buffer for FN SPDU.
s_i_r_req_mi()	d938	Failed to get buffer for FN SPDU.
s_i_t_ind_md()	da01	Transport connection disconnected due to congestion.
s_i_t_ind_md()	da02	New connection data structure not allocated.
s_i_t_ind_md()	da03	No user indication function.
s_i_result_parse_md()	da04	Illegal value from indication function.
s_i_t_ind_md()	da05	Illegal connection data structure pointer.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_result_parse_md()	da06	Null indication function.
s_i_result_parse_md()	da07	Null indication function.
s_i_result_parse_md()	da08	Null indication function.
s_i_result_parse_md()	da09	Null indication function.
s_i_result_parse_md()	da0a	Null indication function.
s_i_result_parse_md()	da0b	Null indication function.
s_i_result_parse_md()	da0c	Null indication function.
s_i_result_parse_md()	da0d	Null indication function.
s_parse_pi_pgi_mi()	db01	Reference Parameter length > S_REF_MAX_LEN.
s_parse_pi_pgi_mi()	db02	Additional Reference Parameter length > S_ADDREF_MAX_LEN.
s_parse_pi_pgi_mi()	db03	Reflect Parameter length > S_RFLCT_MAX_LEN.
s_parse_pi_pgi_mi()	db04	Called or Calling SSAP length > S_MAX_SSAP_ID_LEN.
s_parse_pi_pgi_mi()	db05	Protocol Options Parameter length != S_LEN_PROOPT.
s_parse_pi_pgi_mi()	db06	Invalid value for TSDU maximum size.
s_parse_pi_pgi_mi()	db07	Invalid value for Session User Reqmts Parameter.
s_parse_pi_pgi_mi()	db08	Incorrect length for token setting parameters.
s_parse_pi_pgi_mi()	db09	Incorrect length for token item parameter.
s_parse_pi_pgi_mi()	db0a	Incorrect length for transport disconnect parameter.
s_parse_pi_pgi_mi()	db0b	Zero length Reason Code Parameter.
s_parse_pi_pgi_mi()	db0c	Invalid Parameter Identifier.
s_parse_pi_pgi_mi()	db0d	Incorrect length of enclosure item parameter.
s_exq_put()	db0e	Incorrect length of expedited data SPDU.
s_exq_put()	db0f	Expedited data queue is full.
s_parse_pi_pgi_mi()	db10	User Data > S_U_512_LEN.
s_i_nrm_data_mi()	dc01	Session Protocol Machine in illegal state to send data.
s_i_dt_data_mi()	dc02	Session Protocol Machine in illegal state to receive data.
s_i_exp_data_mi()	dc03	Session Protocol Machine in illegal state to send expedited data.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_ex_data_mi()	dc04	Session Protocol Machine in illegal state to receive expedited data.
s_i_give_token_mi()	dc05	Session Protocol Machine in illegal state to send Give Tokens SPDU.
s_i_gt_spdu_mi()	dc06	Session Protocol Machine in illegal state to receive Give Tokens SPDU.
s_i_please_token_mi()	dc07	Session Protocol Machine in illegal state to send Please Tokens SPDU.
s_i_pt_spdu_mi()	dc08	Session Protocol Machine in illegal state to receive Please Tokens SPDU.
s_i_please_token_mi()	dc09	Previous Action not complete.

AP HANDLER

SOURCE	*FUNCTION*	*CODE*	*COMMENT*
pinitap3.c	pinitap3	df00	Call to IODRV space controller for memory failed.
pinitap3.c	pinitap3	df01	APH could not attach application type to SSAP.
pmsgap3.c	pmsgap3	df01	APH could not attach application type to SSAP.
archive.c	arch_lib	df02	ECD access of aphuser record for archive user requesting a connection returned IDNULL or IDERROR.
as_op_cl.c	as_open	df02	ECD access of aphuser record returned IDNULL or IDERROR.
asi_funcs.c	as_con_ind	df02	ECD access of aphuser record that an indication is to go to returned IDNULL or IDERROR.

SCSD HANDLER

FUNCTION	CODE	COMMENT *(continued)*
prspsd3.c	e001	pushq1 failure.
pmsgsd3.c	e001	pushq1 failure.
sc_func.c	e001	pushq1 failure.
scsd.c	e102	No timing available.
prstsd3.c	e205	PC restoral failed.
sc_func.c	e206	Illegal internal state in sc_rst().
prspsd3.c	e503	Cannot allocate message.
prspsd3.c	e504	Failed to get port of Admin.
prspsd3.c	e506	Failed to send message to Admin.
prspsd3.c	e507	Unrecognized response from PC.
pmsgsd3.c	e701	Number of UCB pointers greater than one.
pmsgsd3.c	e707	Illegal point number.
pmsgsd3.c	e708	Illegal operation.
pmsgsd3.c	e709	Received unrecognized message.
pgrowsd3.c	e801	Cannot allocate message.
sc_admin.c	e902	Bad port number used for Admin attach.
prspsd3.c	eaxx	PC returned error: code in low order bits (see completion codes).

BXSL HANDLER

sltime.c	07	No slh connection or no timer.

SL HANDLER

modglob.c	e1	A signal has been delivered to a locked model. Model name, signal number, and state of the model are given. Format of additional string information is defined as: m4:*p*, *q*, *r* *p* = A string of model name. *q* = Signal in hexadecimal. *r* = Major control block's state in decimal.

FUNCTION	CODE	COMMENT *(continued)*
`modglob.c`	`e2`	A signal is not recognized by a model. Model name, signal number, and state of the model are given. Format of additional string information is defined as: `m4:`*p, q, r* *p* = A string of model name. *q* = Signal in hexadecimal. *r* = Major control block's state in decimal.
`modglob.c`	`e3`	A signal is sent from a major model to a submodel that has not been invoked. Hex code for the major model, state of the major model, and signal number are given. Format of additional string information is defined as: `m4:`*p, q, xr* *p* = Major model in hexadecimal. *q* = State of the major model in decimal. *r* = Signal in hexadecimal.
`modglob.c`	`e4`	A major model attempted to invoke a submodel that is already invoked. Address of the major model and state of the major model are given. Format of additional string information is defined as: `m4:` *xp q* *p* = Model control function's program address in hexadecimal. *q* = Model control block's state in decimal.
`pmsgsl3.C`	`e5`	The model failed to free an scb from the user. Some scb structures may be orphaned.
`modglob.c`	`f0`	`Idle_model()` was called with a Session Control Block address of NULL. Return address of the caller is given. Format of additional string information is defined as: `m4:`*ra x' p* *p* = Idle_model() return address in hexadecimal.

FUNCTION	CODE	COMMENT *(continued)*
`modglob.c`	`f1`	`Idle_model()` was called with a Session Control Block still joined to the user. Address of the model and state of the model is given. Format of additional string information is defined as: `m4`: *xp q* *p* = Model control function's program address in hexadecimal. *q* = Model control block's state in decimal.
`modglob.c`	`f2`	`Idle_model()` was called with a Session Control Block still joined to the circuit. Address of the model and state of the model is given. Format of additional string information is defined as: *p* = Model control function's program address in hexadecimal. *q* = Model control block's state in decimal.
`modglob.c`	`f3`	`Idle_model()` was called and the Input submodel has not been updated to idle. Address of the input submodel, state of the input submodel, address of the major model, and state of the major model are given. Format of additional string information is defined as: `m4`: *xp q r s* *p* = Input model control function's program address in hexadecimal. *q* = Input model control block's state in decimal. *r* = Model control function's program address in hexadecimal. *s* = Model control block's state in decimal.

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FUNCTION	CODE	COMMENT *(continued)*
`modglob.c`	`f4`	`Idle_model()` was called and the Output submodel has not been updated to idle. Address of the output submodel, state of the output submodel, address of the major model, and state of the major model are given. Format of additional string information is defined as: `m4`: *xp q r s* *p* = Output model control function's program address in hexadecimal. *q* = Output model control block's state in decimal. *r* = Model control function's program address in hexadecimal. *s* = Model control block's state in decimal.
`modglob.c`	`f5`	`Idle_model()` was called and the auxiliary input buffer has not been released. Address and state of the model are given. Format of additional string information is defined as: `m4`: *xp q* *p* = Model control function's program address in hexadecimal. *q* = Model control block's state in decimal.
`modglob.c`	`f6`	`Idle_model()` was called and a timer is still running. The timer type, address and state of the model are given. Format of additional string information is defined as: `m4`: *xp q r* *p* = Session control block's timer type in hexadecimal. *q* = Output model control function's program address in hexadecimal. *r* = Output model control block's state in decimal.

FUNCTION	CODE	COMMENT *(continued)*
`modglob.c`	`f7`	`Idle_model()` was called and the Session Control Block is still on the list of pcreated processes. Address of the model and state of the model are given. Format of additional string information is defined as: `m4`: *xp q* *p* = Model control function's program address in hexadecimal. *q* = Model control block's state in decimal.

SPECIAL WARNING MESSAGES

	CODE	COMMENT
	`fff01`	No responses to process in interrupt entry.
	`fff02`	Response not properly passed to handler (lost).
	`fff03`	Resp queue ul ptr written by someone other than IODRV.
`sltime.C`	`7`	Current timer index in SCB is not the same as the time-out index. Format of additional string information is defined as: `TIM; SCB: xp to_index`: *xq* *p* = Current timer index in hexadecimal; *q* = Time-out index in hexadecimal. Connect id mapping failed. Format of additional string information is defined as: `Tmapfail; sconnid:` *xp* *p* = Session connect id in hexadecimal.

The output of all of the above error codes can be controlled by the `SET:IODRV` and `CLR:IODRV` input commands.

ID . . . . . APP-IOP-APPF-B
GENERIC . . . . . UNIX RTR R21.3, R21.11, R21.15 thru R21.25
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

ERROR CODES GENERATED BY IODRV

NOTE: These error codes are in hexadecimal notation.

IODRV

FUNCTION	CODE	COMMENT
iointr.c	0100	Cannot convert iorid to ucblp.
iointr.c	0101	Report error has exceeded the acceptable error count.
iointr.c	0102	Cannot reset interrupt flag in BIC.
iointr.c	0104	PIC passed out of range load printer.
iointr.c	0106	Failed to sense D2SBS status.
iointr.c	0107	D2SBS status off-normal.
em_iointr.c	0108	Error encountered getting response from response queue.
procrsp.c	0200	Base priority queue overflow.
procrsp.c	0300	Cannot convert iorid to ucblp.
procrsp.c	0301	Unknown response received.
procrsp.c	0304	PC audit response failure.
procrsp.c	0400	Cannot convert iorid to ucblp.
procrsp.c	0401	Unknown response received.
kost.c	0501	OST is invalid for this dev.
kost.c	0504	Extraneous OST.
kost.c	0505	Cannot map ldin to UCB(s).
servr2.c	0600	Cannot convert iorid to ucblp.
servr2.c	0640	Failed to get PCSD's UCB.
servr2.c	0641	downucb() failed for PCSDs.
servr2.c	0642	Cannot get PC's UCB.
servr2.c	0643	downucb() failed to get PC's UCB.
servr2.c	0644	Failed to get IOP's UCB.
servr2.c	0645	Link to device handler failed.
servr2.c	0646	Link to device handler failed.
servr2.c	0670	Failed to get PCSD's UCB.

FUNCTION	CODE	COMMENT *(continued)*
servr2.c	0671	downucb() failed for PCSDs.
servr2.c	0672	Cannot get PC's UCB.
servr2.c	0673	downucb() failed to get PC's UCB.
servr2.c	0674	Failed to get IOP's UCB.
servr2.c	0677	Cannot get IOP / PC's UCB.
procrsp.c	0711	Encountered idle response queue entry.
procrsp.c	0712	Response queue load pointer out of range.
isc.c	0740	isalloc failure - align argument out of acceptable range.
isc.c	0741	isalloc failure - user requested more than segment of space.
isc.c	0742	isalloc failure - iolockseg failed.
isc.c	0743	isalloc failure - no requester nodes available.
isc.c	0744	isalloc error - isalign could not find growable element.
isc.c	0748	isalloc failure - IMF add message could not be sent to MMGR.
isc.c	0749	isalloc failure - IMF grow message could not be sent to MMGR.
isc.c	074a	isalloc failure - IMF add message could not be sent to MMGR.
isc.c	0750	isc problem - MSACK from MMGR indicates add failed.
isc.c	0751	isc failure - grow retry failed.
isc.c	0752	isc failure - isimfretry could not find growable element.
isc.c	0758	isc failure - normal grow request failed.
isc.c	0759	isc failure - retry grow request for single user failed.
isc.c	075a	isc failure - degrow request failed.
isc.c	075b	isc failure - grow of unidentifiable type failed.
isc.c	075c	isalloc failure - iolockseg failed.
isc.c	0760	isc problem - IMF could not send remove message to MMGR.
isc.c	0761	isc problem - IMF could not send degrow message to MMGR.
isc.c	0768	iscanreq failure - invalid cancellation identifier.
isc.c	0769	iscanreq failure - invalid cancellation identifier (o).
isc.c	0770	isfree problem - attempt to unlock failed.
isc.c	0771	isfree failure - invalid security identifier.

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FUNCTION	CODE	COMMENT *(continued)*
isc.c	0772	isfree failure - invalid user area address.
isc.c	077a	isunlk failure - imf could not decrement lock count.
isc.c	077b	isunlk warning - block unlocked but iounlkseg not invoked.
isc.c	077c	isunlk failure - invalid security identifier.
isc.c	077d	isunlk failure - invalid user area address.
isc.c	077e	isc problem - no growable free space element in segment.
smc.c	0780	smalloc failure - SMID length argument exceeds maximum.
smc.c	0781	smalloc failure - invalid alignment boundary argument.
smc.c	0782	smalloc failure - block length argument exceeds allocated size.
smc.c	0783	smalloc failure - alignment argument differs from allocated block.
smc.c	0784	smalloc failure - no requester nodes available.
smc.c	0785	smalloc failure - block length argument exceeds size requested.
smc.c	0786	smalloc failure - no shared memory block request nodes available.
smc.c	0787	smalloc failure - no requester nodes available.
smc.c	0788	smalloc failure - ISC allocation failed.
smc.c	0789	smalloc error - rqip node not found.
smc.c	078a	smalloc failure - ISC allocation failed.
smc.c	0790	smcanreq failed - invalid cancel request identifier.
smc.c	0791	smcanreq failed - invalid shared memory identifier.
smc.c	0792	smcanreq failed - zero is invalid cancel request identifier.
smc.c	0798	smfree failed - invalid shared memory block address.
smc.c	0799	smfree failed - invalid security identifier.
cfr.c	07c0	cfread failure - no requester nodes available.
cfr.c	07c1	cfread failure - no file request nodes available.
cfr.c	07c2	cfread failure - no requester nodes available.
cfr.c	07c8	cfread failure - unable to open file.
cfr.c	07d0	cfread failure - isalloc unsuccessful.

FUNCTION	CODE	COMMENT *(continued)*
cfr.c	07d1	cfread abort by cfreadbuf - no requesters or invalid state.
cfr.c	07d8	cfread - iounlk failed in cfreadack.
cfr.c	07d9	cfread failure - FMGR message acknowledgement has bad status.
cfr.c	07da	cfread - no file request node found for read acknowledgement.
cfr.c	07e0	cfread failure - FMGR message retry threshold exceeded.
cfr.c	07e4	cfread failure - RQIP node with timeout tag not found.
cfr.c	07e8	cfcanreq error - invalid cancel request identifier.
cfr.c	07e9	cfcanreq error - file not found.
cfr.c	07ea	cfcanreq error - invalid cancel request identifier.
cfr.c	07f0	cffree - freeing file with negative use count.
cfr.c	07f1	cffree error - invalid security identifier.
cfr.c	07f2	cffree error - invalid address.
cfr.c	07f3	`cfaunlock()` - freeing file with negative use count.
cfr.c	07f8	cfread failure - message buffer overflow.
cfr.c	07f9	cfread failure - timer request unsuccessful.
cfr.c	07fa	cfread failure - message buffer overflow.
cfr.c	07fb	cfread failure - timer request unsuccessful.
cfr.c	07fc	cfread failure - kgetsgn call unsuccessful.
cfr.c	07fd	cfread - queuemn for close message to FMGR unsuccessful.
cfr.c	07fe	cfread - buffer allocation failure for close message.
faultaud.c	0802	No handler to process message audit. Format of additional string information is defined as: `UNIT` *a b a* = A string for device name. *b* = A decimal for device number.
ioevnt.c	0803	Invalid message type.
ioevnt.c	0804	Msg doesn't contain an iorid.
ioevnt.c	0805	Msg doesn't contain an iorid.
ioevnt.c	0806	IOMESG msg doesn't contain an iorid.
ioevnt.c	0808	Cannot link msg to device handler.
ioevnt.c	0809	Cannot link msg to maint handler.
ioevnt.c	080a	Unknown message type.
ioevnt.c	080b	Cannot link msg to device handler.
ioevnt.c	080c	IODRV both send and receiver of message (not USRACK).

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FUNCTION	CODE	COMMENT *(continued)*
ioevnt.c	0810	Not a pointer in driver's data space.
ioevnt.c	0813	Cannot link message to Transport Protocol Handler.
faultaud.c	0828	lkhand1() returned ENOHAND.
faultaud.c	0829	Cannot map to a UCB.
faultaud.c	082a	Invalid input option.
faultaud.c	0830	USRACK expected in system returned message.
faultaud.c	0831	lkhand1() returned ENOHAND.
faultaud.c	0832	lkhand1() returned ENOHAND.
faultaud.c	0833	lkhand1() returned ENOHAND.
procmsg.c	0901	RID cannot map to a UCB. Format of additional string information is defined as: *a b c d a* = Message sender's process number in hexadecimal. *b* = c is a MDCT RID '1' indicates that to be a UCB RID. *c* = UCB PID or MDCT RID in hexadecimal. *d* = Message sender's utility id in hexadecimal. To get a full copy of the above UCB or MDCT, use following browse procedures: ">" is the browse prompt, after it is the operator input. The line below the input line is response from browse. Comments enclosed are not part of the input/response. >**browse %-ecd** /* Enter database name for browse */ %-ecd /* browse acknowledgement */ >**dd /usr/bin/ecd_aux** /* Enter data dictionary look up */ /usr/bin/ecd_aux /* browse acknowledgement */ >**0x496a0/r** /* dump record with RID of 0x496a0 */ ..... content of the record ..... >**q** /* quit after dump completion */
procmsg.c	0902	Invalid input option (not CVTRID or CVTLDIN).
procmsg.c	0905	Cannot link msg to maint handler.
procmsg.c	0906	Cannot link msg to device handler.
procmsg.c	0a01	Cannot map RID to UCB.
procmsg.c	0a06	Cannot link msg to device handler.
updflsh.c	0b00	PCn Flash programming - timed out - mark PC community in service.
updflsh.c	0b01	PCn Flash programming - timed out - clear PC.
updflsh.c	0b02	PCn Flash programming - timed out - reset PC isolate flip-flop and mark in service.

FUNCTION	CODE	COMMENT *(continued)*
updflsh.c	0b03	PCn Flash programming - timed out - read PC scan back.
updflsh.c	0b04	PCn Flash programming - timed out - pump PC code.
updflsh.c	0b05	PCn Flash programming - timed out - read PC code version.
updflsh.c	0b06	PCn Flash programming - timed out - execute PC code.
updflsh.c	0b07	PCn Flash programming - timed out - pump PC code.
updflsh.c	0b08	PCn Flash programming - timed out - clear PC.
updflsh.c	0b0b	PCn Flash programming - `proc_ufm()` failed to get timer to update Flash RAM.
updflsh.c	0b0c	PCn Flash programming - timed out - update Flash RAM.
initma.c	0c00	`initdb()` cannot get list of IOPs.
initma.c	0c01	initdb() cannot attach to database.
initma.c	0c02	Failed DMAC RAM initialization - IOPn not restored.
initma.c	0c03	EMPT pointer has bad virtual address.
initma.c	0c04	EMPT has bad virtual address.
initma.c	0d00	IOP member number too large - IOPn not restored.
initma.c	0d03	Cannot convert iorid to ucblp.
initma.c	0d04	Cannot convert iorid to ucblp.
initma.c	0d05	Cannot get list of IOPs.
initma.c	0d06	Cannot attach to ECD.
initma.c	0d07	IOPn attached to wrong port.
initma.c	0d08	`timreq1()` function returned FAIL.
initma.c	0d09	Failed to attach to a port.
initma.c	0d0a	Unable to obtain PC power down reset timer.
initmb.c	0e04	Memory not allocated for IOPn - leave OOS.
initmb.c	0e05	Unable to convert PC RID to UCB.
initmb.c	0e06	Unable to convert PCSD RID to UCB.
initmb.c	0e07	No memory exists for PC.
initmb.c	0e08	No memory exists for PCSD.
initmb.c	0e0a	Downucbs returned fail.
initmb.c	0e0b	Downucbs function returned fail.
servr2.c	0f00	Unable to convert I/O rid to a ucblp.
servr2.c	0f01	Cannot map virt addr to a seg no., or downucbs failed for PCSDs.
servr2.c	0f02	Cannot lock segment or cannot get PC's UCB.

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FUNCTION	CODE	COMMENT *(continued)*
servr2.c	0f03	Cannot unlock segment or cannot get PC's UCB.
servr2.c	0f04	Failed to get IOP's UCB.
servr2.c	0f05	Failed to link to application handler.
servr2.c	0f06	Link to device handler failed.
picgh.c	1001	Asynchronous PIC completion failure report (not during restoral).
picgh.c	1002	Generic PIC handler in wrong state for given response.
servr1.c	1100	C_FAIL returned by CONFIG for rptrerr.
servr1.c	1101	Recovery - timeout request failure.
servr1.c	1102	Cannot convert iorid to ucblp.
servr1.c	1103	Recovery will be performed on device.
picgh.c	1200	IOPn restore - no timing available.
picgh.c	1300	IOPn restore - cannot clear BIC.
picgh.c	1302	IOPn restore - invalid sequence number.
picgh.c	1303	IOPn restore - cannot reset PIC.
picgh.c	1306	IOPn restore - cannot send sysgen pio.
picgh.c	1307	IOPn restore - failed to enable interrupts.
picgh.c	1308	IOPn restore - cannot clear D2SBS.
picgh.c	1309	IOP restore - PIC pump failure - trying alternate pumpcode filename. ECD may have incorrect name for IOP pump file or system might be configured for 3B20D IOP.
picgh.c	130a	IOP restore - PIC pump failure - trying backup version alternate pumpcode filename. ECD may have incorrect name for IOP pump file or the primary pumpcode file may be corrupted or the IOP is configured for the computer.
picgh.c	130d	Failed to free use of the pumpcode file.
picgh.c	130e	Cancellation of request to read pumpcode file failed.
picgh.c	1400	IOPn restore - completion code error.
picgh.c	1401	IOPn restore - invalid sequence number.
picgh.c	1402	IOPn restore - the `asndma21()` function failed to assign DMA slot.
picgh.c	1403	IOPn restore - the `getpta()` function failed to get PTA.
picgh.c	1404	IOPn restore - the `sendpio1()` function failed to send the command to IOP.
picgh.c	1405	IOPn restore - the `cfread()` function failed to read the pumpcode file.

FUNCTION	CODE	COMMENT *(continued)*
picgh.c	1406	IOPn restore - invalid sequence number.
picgh.c	1407	IOPn restore - the `getsucbl()` function call failed, cannot retrieve the UCB record for the IOP.
picgh.c	1408	IOPn restore - the `getpta()` function failed to get PTA.
picgh.c	1409	IOPn restore - the `asndma21()` function failed to assign DMA slot.
picgh.c	1500	IOPn restore - timed out.
pcgh.c	1601	Asynchronous PC completion failure report (not during restoral).
pcgh.c	1602	Generic PC handler in wrong state for given response.
pcgh.c	1701	PCn restore failed.
pcgh.c	1702	Cannot get PIC UCB.
prms.c	170a	Unable to get message buffer for PRM.
prms.c	170b	Unable to send PRM message to SIM.
pcgh.c	1800	PCn restore - command queue failure - mark PC comm in service.
pcgh.c	1801	PCn restore - command queue failure - clear PC.
pcgh.c	1802	PCn restore - command queue failure - reset PC isolate flip-flop and mark in service.
pcgh.c	1803	PCn restore - command queue failure - read PC scanback.
pcgh.c	1804	PCn restore - command queue failure - pump PC code.
pcgh.c	1805	PCn restore - command queue failure - execute PC code.
pcgh.c	1806	`getpta()` returned failure.
pcgh.c	1807	PCn restore - invalid sequence number.
pcgh.c	1808	PCn restore - command queue failure - read PC code version.
pcgh.c	1809	MTTYC restore - PC pump failure - trying alternate pumpcode filename. ECD database may have incorrect name for MTTYC pump file (TN83/TN983).
pcgh.c	180a	pcclear failed to free copy of pump file.
pcgh.c	180b	pcclear failed to cancel pending request for copy of pump file.
pcgh.c	180c	`Asndma1()` failure.
pcgh.c	180d	pccomp cannot pump - getpta call failed.
pcgh.c	180e	pccomp cannot pump - cfread failed.

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FUNCTION	CODE	COMMENT *(continued)*
pcgh.c	180f	PCn pump abort - PC already being pumped.
pcgh.c	1810	PCn pump abort - wrong sequence number.
pcgh.c	1811	PCn restore failure - could not get UCB.
pcgh.c	1813	`getpta()` returned failure for MTTYC (UN583).
pcgh.c	1814	MTTYC restore - command queue failure - read UN583 pump file version.
pcgh.c	1820	PCn restore - no timing available.
pcgh.c	1821	MTTYC restore - no timing available - read UN583 pump file version.
pcgh.c	1900	PCn restore - completion code failure mark PC comm in service.
pcgh.c	1901	PCn restore - completion code failure- clear PC.
pcgh.c	1902	PCn restore - completion code failure - reset PC isolate flip-flop and mark in service.
pcgh.c	1903	PCn restore - completion code failure - read PC scan back.
pcgh.c	1904	PCn restore - completion code failure - pump PC code.
pcgh.c	1905	PCn restore - completion code failure - execute PC code.
pcgh.c	1906	PCn restore - invalid sequence no.
pcgh.c	1907	PCn restore - no timing available.
pcgh.c	1908	PCn restore - completion code failure - read PC code version.
pcgh.c	1909	PCn restore - PC not plugged in.
pcgh.c	190a	MTTYC restore - completion code failure - read UN583 pump file version.
pcgh.c	1930	PCn restore - unrecognized response - mark PC comm in service.
pcgh.c	1931	PCn restore - unrecognized response - clear PC.
pcgh.c	1932	PCn restore - unrecognized response - reset PC isolate flip-flop and mark in service.
pcgh.c	1933	PCn restore - unrecognized response - read PC scan back.
pcgh.c	1934	PCn restore - unrecognized response - pump PC code.
pcgh.c	1935	PCn restore - unrecognized response - execute PC code.
pcgh.c	1938	PCn restore - unrecognized response - read PC code version.

FUNCTION	CODE	COMMENT *(continued)*
pcgh.c	1939	MTTYC restore - unrecognized response - read UN583 pump file version.
pcgh.c	1a00	PCn restore - timed out - mark PC comm in service.
pcgh.c	1a01	PCn restore - timed out - clear PC.
pcgh.c	1a02	PCn restore - timed out - reset PC isolate flip-flop and mark in service.
pcgh.c	1a03	PCn restore - timed out - read PC scanback.
pcgh.c	1a04	PCn restore - timed out - pump PC code.
pcgh.c	1a05	PCn restore - timed out - read PC code version.
pcgh.c	1a06	PCn restore - timed out - execute PC code.
updflsh.c	1a0b	PCn Flash programming - `prgflsh1()` command queue failure - mark PC community in service.
updflsh.c	1a0c	PCn Flash programming - `prgflsh1()` command queue failure - clear PC.
updflsh.c	1a0d	PCn Flash programming - `prgflsh1()` command queue failure - reset PC isolate flip-flop and mark in service.
updflsh.c	1a0e	PCn Flash programming - `prgflsh1()` command queue failure - read PC scan back.
updflsh.c	1a0f	PCn Flash programming - `prgflsh1()` failed to get page table address.
updflsh.c	1a10	PCn Flash programming - `prgflsh1()` command queue failure - read PC code version.
updflsh.c	1a11	PCn Flash programming - `prgflsh1()` command queue failure - execute PC code.
updflsh.c	1a12	PCn Flash programming - `prgflsh1()` command queue failure - clear PC.
updflsh.c	1a13	PCn Flash programming - `prgflsh1()` failed to get a message buffer.
updflsh.c	1a14	PCn Flash programming - `prgflsh1()` - invalid sequence number.
updflsh.c	1a20	PCn Flash programming - `prgflsh1()` - no timing available for mark PC community in service.
updflsh.c	1a21	PCn Flash programming - `prgflsh1()` - no timing available for clear PC.
updflsh.c	1a22	PCn Flash programming - `prgflsh1()` - no timing available for reset PC isolate flip-flop and mark in service.

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FUNCTION	CODE	COMMENT *(continued)*
updflsh.c	1a23	PCn Flash programming - prgflsh1() - no timing available for read PC scan back.
updflsh.c	1a24	PCn Flash programming - prgflsh1() - no timing available for read PC code version.
updflsh.c	1a25	PCn Flash programming - prgflsh1() - no timing available for execute PC code.
updflsh.c	1a26	PCn Flash programming - prgflsh1() - no timing available for clear PC.
pcgh.c	1aff	PCn restore - timed out - PC restoral no longer in progress.
iowque.c	1b00	Push queue - command queue full.
em_iowque.c	1b01	Push queue - push queue failure.
em_iowque.c	1b02	Push queue - failure to queue request due to invalid request, queue corruption, or resource problem.
em_iowque.c	1b03	Push queue - failure to queue request for unknown reason.
updflsh.c	1b0a	PCn Flash programming - pcclear2() failed to free use of pumpcode / flash file.
updflsh.c	1b0b	PCn Flash programming - pcclear2() failed to cancel request for pumpcode / flash file.
updflsh.c	1b0c	PCn Flash programming - pccomp2() failed to assign dma slot.
updflsh.c	1b0d	PCn Flash programming - pccomp2() command queue failure - PC pump (no erase of flash file).
updflsh.c	1b0e	PCn Flash programming - pccomp2() command queue failure - PC pump (erase of flash file).
updflsh.c	1b0f	PCn Flash programming - pccomp2() command queue failure - PC pump (administration flash file).
updflsh.c	1b10	PCn Flash programming - pccomp2() failed to get page table address.
updflsh.c	1b11	PCn Flash programming - pccomp2() failed to read flash file.
updflsh.c	1b12	PCn Flash programming - pccomp2() abort PC pump - PC already being pumped.
updflsh.c	1b13	PCn Flash programming - pccomp2() abort PC pump - wrong sequence number.
updflsh.c	1b14	PCn Flash programming - pccomp2() could not get PC UCB.

FUNCTION	CODE	COMMENT *(continued)*
updflsh.c	1b15	PCn Flash programming - pcclear2() failed to cancel request for pumpcode/flash file.
updflsh.c	1b16	PCn Flash programming - pccomp2() failed to read flash file.
updflsh.c	1b17	PCn Flash programming - pccomp2() failed to read all of the flash files.
updflsh.c	1b18	PCn Flash programming - pccomp2() retrieved flash file with incorrect file size.
updflsh.c	1b19	PCn Flash programming - get_flsh_files() - invalid flash file index.
updflsh.c	1b20	PCn Flash programming - pccomp2() - no timing available for PC pump (no erase of flash file).
updflsh.c	1b21	PCn Flash programming - pccomp2() - no timing available for PC pump (erase of flash file).
updflsh.c	1b22	PCn Flash programming - pccomp2() - no timing available for PC pump (administration flash file).
rstcont.c	1c01	Cannot convert iorid to ucblp.
rstcont.c	1c02	Cannot convert iorid to ucblp.
updflsh.c	1c0a	PCn Flash programming - prgflsh2() completion code failure - mark PC community in service.
updflsh.c	1c0b	PCn Flash programming - prgflsh2() completion code failure - clear PC.
updflsh.c	1c0c	PCn Flash programming - prgflsh2() completion code failure - reset PC isolate flip-flop and mark in service.
updflsh.c	1c0d	PCn Flash programming - prgflsh2() - PC not plugged in.
updflsh.c	1c0e	PCn Flash programming - prgflsh2() completion code failure - read PC scan back.
updflsh.c	1c0f	PCn Flash programming - prgflsh2() completion code failure - pump PC code.
updflsh.c	1c10	PCn Flash programming - prgflsh2() completion code failure - read PC code version.
updflsh.c	1c11	PCn Flash programming - prgflsh2() completion code failure - execute PC code.
updflsh.c	1c12	PCn Flash programming - prgflsh2() completion code failure - pump PC code.
updflsh.c	1c13	PCn Flash programming - prgflsh2() completion code failure - clear PC.

FUNCTION	CODE	COMMENT *(continued)*
updflsh.c	1c14	PCn Flash programming - prgflsh2() - invalid sequence number.
updflsh.c	1c15	PCn Flash programming - pcflsfail() failed to get a message buffer.
updflsh.c	1c20	PCn Flash programming - prgflsh2() - no timing available for clear PC.
updflsh.c	1c21	PCn Flash programming - prgflsh2() - no timing available for clear PC.
updflsh.c	1c30	PCn Flash programming - prgflsh2() unrecognized response - mark PC community in service.
updflsh.c	1c31	PCn Flash programming - prgflsh2() unrecognized response - clear PC.
updflsh.c	1c32	PCn Flash programming - prgflsh2() unrecognized response - reset PC isolate flip-flop and mark in service.
updflsh.c	1c33	PCn Flash programming - prgflsh2() unrecognized response - read PC scan back.
updflsh.c	1c34	PCn Flash programming - prgflsh2() unrecognized response - pump PC code.
updflsh.c	1c35	PCn Flash programming - prgflsh2() unrecognized response - read PC code version.
updflsh.c	1c36	PCn Flash programming - prgflsh2() unrecognized response - execute PC code.
updflsh.c	1c37	PCn Flash programming - prgflsh2() unrecognized response - pump PC code.
updflsh.c	1c38	PCn Flash programming - prgflsh2() unrecognized response - clear PC.
rstcont.c	1d00	Cannot complete common IODRV mem initialization.
rstcont.c	1d01	Unable to convert IOP RID to UCB.
rstcont.c	1d02	Unable to release data base record.
rstcont.c	1d03	Unable to obtain list of PCs.
rstcont.c	1d04	Unable to convert PC RID to UCB.
rstcont.c	1d05	Unable to release data base record.
rstcont.c	1d06	Unable to obtain list of PCSDs.
rstcont.c	1d07	Unable to convert PCSD RID to UCB.
rstcont.c	1d08	Unable to release data base record.
rstcont.c	1d09	Unable to obtain list of PCSDs.
rstcont.c	1d0a	Unable to convert PCSD RID to UCB.
rstcont.c	1d0b	Unable to release data base record.

FUNCTION	CODE	COMMENT *(continued)*
rstcont.c	1d0c	Bad device level.
rstcont.c	1d20	setboot() got FAIL from downucb().
rstcont.c	1d21	setboot() got FAIL from relrec().
rstcont.c	1d22	setboot() cannot convert RID to UCB.
servr1.c	1d60	Unknown unit level.
servr1.c	1d61	No words to zero.
iowque.c	1e00	Send pio - cannot read BIC status.
iowque.c	1e01	Send pio - failed to read BIC status.
iowque.c	1e02	Send pio - BIC status error or cmd flag stuck.
iowque.c	1e03	Send pio - failed to send programmed I/O instr.
outmsg.c	1f00	Cannot convert iorid to ucblp.
iotime.c	2000	Cannot convert iorid to ucblp.
rstcont.c	2100	Cannot convert iorid to ucblp.
rstcont.c	2101	lkhand1() returned fail.
rstcont.c	2200	downucbs function returned fail.
rstcont.c	2300	Bad handler id.
rstcont.c	2301	restsd() cannot convert RID to UCB.
iolkh.c	2400	getucbl() failed to get IOP UCB.
rmvcont.c	2401	downucbs function returned fail.
rmvcont.c	2402	Cannot convert a rid to a UCB record.
rmvcont.c	2403	rqstrmv() returned C_FAIL or unknown response.
iolkh.c	2410	getcomsupv - no free comsupvinfo structure.
servr1.c	2500	Cannot convert iorid to ucblp.
servr1.c	2501	downucbs function returned fail.
servr1.c	2502	downucbs function returned fail.
servr1.c	2503	Cannot convert iorid to ucblp.
servr1.c	2504	downucbs function returned fail.
servr1.c	2505	Cannot convert PCSD RID to UCB record.
servr1.c	2506	haltact() cannot convert RID to UCB.
servr1.c	2600	Cannot convert a rid to a UCB record.
servr1.c	2601	downucbs function returned fail.
servr1.c	2602	Cannot convert iorid to ucblp.
outmsg.c	2700	Cannot convert iorid to ucblp.
outmsg.c	2800	Cannot convert iorid to ucblp.
rmvcont.c	2900	downucbs function returned fail.
rmvcont.c	2901	Cannot convert iorid to ucblp.
rmvcont.c	2a00	downucbs function returned fail.
rmvcont.c	2a01	Unable to convert PC RID to UCB.
rmvcont.c	2b00	Cannot convert iorid to ucblp.
rmvcont.c	2b01	rmv_half() encountered invalid unit level.
rmvcont.c	2c00	Cannot convert iorid to ucblp.

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FUNCTION	CODE	COMMENT *(continued)*
crmvcont.c	2c03	Cannot convert iorid to ucblp.
crmvcont.c	2c04	downucbs() function returned FAIL.
crmvcont.c	2c05	Cannot convert iorid to ucblp.
crmvcont.c	2c06	downucbs() function returned FAIL.
crmvcont.c	2c07	Cannot convert iorid to ucblp.
crmvcont.c	2c08	Cannot convert iorid to ucblp.
crmvcont.c	2c09	Cannot convert iorid to ucblp.
crmvcont.c	2c0a	Cannot convert iorid to ucblp.
crmvcont.c	2c0b	downucbs() function returned FAIL.
crmvcont.c	2c0c	Cannot convert iorid to ucblp.
crmvcont.c	2c0d	downucbs() function returned FAIL.
crmvcont.c	2c0e	Cannot convert iorid to ucblp.
crmvcont.c	2c0f	downucbs() function returned FAIL.
crmvcont.c	2c10	Cannot convert iorid to ucblp.
crmvcont.c	2c11	PCn remove - no timing available.
crmvcont.c	2c12	Cannot get PC UCB.
crmvcont.c	2c13	Cannot get PIC UCB.
crmvcont.c	2c14	Cannot get PC UCB.
crmvcont.c	2c15	Function deltrg1() returned FAIL.
outmsg.c	2c20	Conditional remove - cannot get timing.
outmsg.c	2c21	Conditional remove - cannot get timing.
rmvcont.c	2c30	Function downucbs() returned FAIL.
rmvcont.c	2c31	Function rqstrmv() returned C_FAIL or unknown response.
rmvcont.c	2c32	Function get_llarec() returned FAIL from UCB access.
outmsg.c	2d00	Cannot convert iorid to ucblp.
rstcont.c	2e00	Memory initialization failure.
rstcont.c	2e01	Cannot convert iorid to ucblp.
rstcont.c	2e02	getucb1() failed to get IOP UCB.
rstcont.c	2f00	downucbs function returned fail.
fault.c	3000	FLT_SCRIT fltcode unexpected.
fault.c	3001	FLT_SINIT fault.
fault.c	3002	Software fault. Format of additional string information is defined as: FLTC X'*a* PA X'*b*, *a* = Reference IOP Appendix E, IOP-APPE, for fault code. b = Program address.
fault.c	3003	FLT_SOFTSW fltcode unexpected.
fault.c	3004	Strange fault code.
fault.c	3005	IODRV owns an old non-queued audit error message.

FUNCTION	CODE	COMMENT *(continued)*
fault.c	3006	Illegal OST.
outmsg.c	3101	Unable to convert unit RID to UCB.
wkspc.c	3110	Unable to convert unit RID to UCB.
wkspc.c	3120	bgrowucmp() got FAIL from isfree().
wkspc.c	3121	bgrowucm() got FAIL from isfree().
wkspc.c	3122	dyngrowump() got FAIL from isfree().
wkspc.c	3123	Failed to release UCB reword.
wkspc.c	3124	Cannot get size requirement for PCSD boot growth.
wkspc.c	3125	Cannot get size requirement for PC boot growth.
wkspc.c	3126	Cannot update incore UCB for boot growth failure.
wkspc.c	3127	Cannot update incore UCB for delayed growth failure.
wkspc.c	3130	Cannot update incore UCB for growth failure.
ioimf.c	3160	Unable to obtain a message buffer while attempting to add a segment.
ioimf.c	3161	Unable to activate a timer while attempting to add a segment.
ioimf.c	3162	Unable to obtain a message buffer while attempting to grow a segment.
ioimf.c	3163	Unable to activate a timer while attempting to grow a segment.
ioimf.c	3164	Unable to obtain a message buffer while attempting to remove a segment.
ioimf.c	3165	Invalid message type.
ioimf.c	3166	Unable to queue the message.
ioimf.c	3170	Add message acknowledgement received but no timer was set.
ioimf.c	3171	Grow message acknowledgement received but no timer was set.
ioimf.c	3172	Invalid message type.
ioimf.c	3173	Pointer contained in ms_ident is not in I/O driver's address space.
iointr.c	3174	Pointer contained in ms_ident is not in I/O driver's address space.
ioimf.c	3180	Either a message was lost or an attempt failed, causing a retry to have to be made.
ioimf.c	3181	Unable to activate the settle-down timer.
ioimf.c	3182	The retry counter has been exceeded.

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FUNCTION	CODE	COMMENT *(continued)*
ioimf.c	3190	Invalid message type.
ioimf.c	3191	Unable to set initialization timer in imfinit.
ioimf.c	3192	ioimftout cannot find MCT.
wkspc.c	31c0	Bad unit level.
wkspc.c	31c1	Cannot get size requirement for PC growth.
wkspc.c	31c2	Cannot get size requirement for PCSD growth.
wkspc.c	31e0	Unable to attach to interrupts for IOPn.
wkspc.c	31e1	Unable to get page table address for IOPn.
wkspc.c	31e2	Unable to initialize DMAC RAM for IOPn.
wkspc.c	31e3	Unable to obtain IOPn option block.
wkspc.c	31e4	Failed to attach to interrupt - IOP not restored.
fault1.c	3200	DMA restart - cannot abort job.
fault1.c	3201	Failed to enable interrupts for IOPn.
fault1.c	3202	Failed to initialize DMAC ram.
fault1.c	3203	DMA restart - cannot clear BIC.
fault1.c	3204	DMA restart - cannot set interface enable.
fault1.c	3300	Cannot convert iorid to ucblp.
fault1.c	3401	Reboot IOP - pio lost.
fault.c	3500	Cannot convert iorid to ucblp.
fault.c	3501	pio has been lost for a unit.
fault.c	3503	IODRV took message buffer audit fault.
fault.c	3600	Cannot convert iorid to ucblp.
fault.c	3601	PICn or PCn implicated.
fault.c	3602	PICn implicated.
fault.c	3603	PICn affected but not implicated.
fault.c	3604	High error cnt, but must limp along.
fault.c	3605	Fault message ignored.
fault.c	3606	High error cnt, remove.
fault.c	3607	PICn affected but not implicated.
fault.c	3608	High error count, but must limp along.
fault.c	3609	Too many faults.
fault.c	360a	No timer entry for short limp mode delay.
fault.c	360b	No timer entry for long limp mode delay.
fault.c	360c	Function `rptierr()` returned C_FAIL or unknown response.
fault.c	360d	Message buffer audit fault.
fault1.c	3703	NADRD, NPICP, or NDREP fault code - unit not identified.
iolla.c	3801	Unable to get UCB record (IORID call Phase I).
iolla.c	3802	Unable to get MDCT record (IORID call Phase II).

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FUNCTION	CODE	COMMENT *(continued)*
iolla.c	3803	Invalid input option (not CVTRID or CVTLDIN).
iolla.c	3806	MDCT rid not available.
iolla.c	3807	Cannot convert a rid to a MDCT record.
iolla.c	3808	MDCT does not contain at least one UCB rid.
iolla.c	3900	`getsucb1()` cannot get UCB.
iolla.c	3901	Bad RID passed as argument to `getsucb1()`.
iolla.c	3902	Invalid record id.
iolla.c	3904	Failed to get ucbl record.
iolla.c	3b02	Cannot convert rid to a MDCT record.
iolla.c	3c02	Cannot release a record.
pcaudit.c	3e00	downucbs function returned fail.
pcaudit.c	3e01	Cannot convert iorid to ucblp.
pcaudit.c	3e03	pushq1 function returned fail.
pcaudit.c	3e05	PCn audit failure - restart PCn.
iolla.c	3f00	Invalid record ID.
iolla.c	3f01	Unable to convert RID to a specified record.
inhadm.c	4600	Arguments in inhibit admin message unknown.
MT HANDLER		
mterrhand.c	4000	MT is in an improper state for restore / restart.
mterrhand.c	4001	Invalid type of restore / restart.
mterrhand.c	4002	Failed to restore; scratch area is not allocated.
mterrhand.c	4004	Cannot delete a DMA slot while processing a restoral.
mterrhand.c	4005	Cannot get PC UCB during PC restoral.
mterrhand.c	4006	No scratch area - restoral failed.
mterrhand.c	4007	Bad major state for restoral of device.
mterrhand.c	4008	Bad restore type.
mterrhand.c	4009	Cannot get recovery timer.
mterrhand.c	4100	Cannot delete DMA slot while completing manual remove.
mterrhand.c	4200	Cannot delete remove timer while processing half remove.
mterrhand.c	4201	Cannot get remove timer.
mterrhand.c	4202	Cannot delete DMA slot while processing half remove.
mterrhand.c	4203	Bad remove type.
mterrhand.c	4300	Cannot delete remove timer from `mtrmvdly()`.
pmsgmt3.c	4302	Improper message type.
pmsgmt3.c	4400	Failure due to MT not open.

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FUNCTION	CODE	COMMENT *(continued)*
pmsgmt3.c	4401	MT already open; not allowed to open to second user.
pmsgmt3.c	4402	Mode must be read or write.
pmsgmt3.c	4500	Record size is > 2048 bytes.
pmsgmt3.c	4501	Buffer must start on a word boundary in read mode.
pmsgmt3.c	4502	Offset into buffer must be on a word boundary in read mode.
pmsgmt3.c	4503	Writes must be sequential.
mtproc.c	4600	DMA assignment failure.
mtproc.c	4601	PC Q area is full.
mtproc.c	4602	Pushq failure.
mtproc.c	4603	Record size > 2048 (because of alignment).
pmsgmt3.c	4700	Attempt to open a device which is not closed.
pmsgmt3.c	4701	Attempt to read a device not open for reading.
pmsgmt3.c	4702	Attempt to write a device not open for writing.
pmsgmt3.c	4703	Bad message type detected by `pmsgmt3()`.
pmsgmt3.c	4704	Major state unit or handler state not suitable for accepting work.
mtproc.c	4800	Bad mode for opening a tape device.
mtproc.c	4801	Bad parameters for a read request.
mtproc.c	4802	Bad parameters for a write request.
mtproc.c	4803	Attempt to do non-sequential write.
mtproc.c	4804	Inconsistent internal state for closing a tape device.
mtproc.c	4805	Bad message type detected by `mtgetwk()`.
mtproc.c	4900	`pushq1()` returned fail when sending an open command.
mtproc.c	4901	`pushq1()` returned fail when sending a read / write command.
mtproc.c	4902	`pushq1()` returned fail when sending a close command.
mtproc.c	4903	`pushq1()` returned fail when sending a seek command.
mtproc.c	4904	`pushq1()` returned fail when sending a rewind command.
mtproc.c	4905	PC queue counter was not zero during open.
mtproc.c	4906	Cannot send rewind command, PC queue full.
mtproc.c	4907	Cannot send close command, PC queue full.
mtproc.c	4908	Bad opcode in current job structure.

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FUNCTION	CODE	COMMENT *(continued)*
mtproc.c	4909	Failed to assign DMA slot.
mtproc.c	490a	Hit EOF when trying to SEEK.
mtproc.c	490b	Detected fatal error when trying to SEEK.
mtproc.c	490c	Detected other errors when trying to SEEK.
prspmt3.c	4a00	Failed to delete DMA slot when current job completed.
prspmt3.c	4a01	Failed to delete DMA slot when received unexpected response.
prspmt3.c	4a02	Failed to delete DMA slot when received response for non active unit.
prspmt3.c	4a03	opcode in response does not match what was sent.
prspmt3.c	4a04	Obsolete response received and ignored.
prspmt3.c	4b00	Cannot delete DMA slot when handling an error in response.
prspmt3.c	4b01	Job rejected illegal command.
prspmt3.c	4b02	Job rejected illegal command sequence.
prspmt3.c	4b03	Job aborted nonrecoverable errors, e.g., bad spot on tape.
prspmt3.c	4b04	Generic part of response invalid.
prspmt3.c	4b05	Tape unit write protected.
prspmt3.c	4b06	End of physical tape.
prspmt3.c	4b07	Subdevice off-line.
prspmt3.c	4b08	Time out error - PC did not hear from tape unit in time.
prspmt3.c	4b09	Reached end of file during read.
prspmt3.c	4b0a	User part of response has unidentified error.
prspmt3.c	4b0b	Generic part of response has unidentified error.
prspmt3.c	4b0c	Unknown handler state when handling response.
prspmt3.c	4b0d	Cannot get error handling dead man timer.
prspmt3.c	4b0e	Cannot delete DMA slot from `procerrs()`.
prspmt3.c	4b0f	Cannot delete DMA slot from `mterrto()`.
prspmt3.c	4b10	PC timed out returning all pending responses following an error.
prspmt3.c	5000	Response opcode error.
prspmt3.c	5001	Response comp code default.
prspmt3.c	5102	Block contained more bytes than the number of bytes requested by read; the excess bytes are lost.
prspmt3.c	5200	EOF reached during read or seek.
prspmt3.c	5201	Tape unit write protected.
prspmt3.c	5202	End of physical tape.
prspmt3.c	5203	Subdevice off-line.

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FUNCTION	CODE	COMMENT *(continued)*
`prspmt3.c`	`5204`	PC time-out error.
`prspmt3.c`	`5300`	Job aborted non-recover errors.
`prspmt3.c`	`5301`	Job rejected illegal command.
`prspmt3.c`	`5302`	Job rejected illegal command context.
`prspmt3.c`	`5304`	MT was not active when PC response was received.
TTY HANDLER		
`prspmt3.c`	`5400`	Retried four times with no success; return with failure.
`pmsgci3.c`	`6000`	No active subdevice for supervisor.
`pmsgci3.c`	`6001`	Unexpected acknowledge message received. Format of additional string information is defined as: *a a* = channel flags (hex).
`pmsgci3.c`	`6002`	Process manager cannot create `/prc/unix`. Format of additional string information is defined as: *a b a* = message status (hex). *b* = channel id (hex).
`pmsgci3.c`	`6003`	Unknown process ID for pcreate message.
`pmsgci3.c`	`6004`	Unknown message type. Format of additional string information is defined as: *a b a* = message type (hex). *b* = ms_from field of message (hex).
`pmsgci3.c`	`6005`	Unable to get ciopt record.
`pmsgci3.c`	`6006`	Unable to get active UCB switchable device.
`pmsgci3.c`	`6007`	Non-switchable device not in proper state for close. Format of additional string information is defined as: *a a* = state of non-switchable device (hex).
`pmsgci3.c`	`6008`	Could not find active switchable device for cancel.
`pmsgci3.c`	`6009`	Non-switchable device not in proper state for cancel. Format of additional string information is defined as: *a a* = state of non-switchable device (hex).
`prmvci3.c`	`6010`	Error on subdevice conditional remove.
`prmvci3.c`	`6011`	Unable to initiate remove timing.
`prmvci3.c`	`6012`	Unknown remove type. Format of additional string information is defined as: [*a*] *a* = remove request type (hex).
`prmvci3.c`	`6013`	Unable to retrieve mdct for remove switchable unit.

FUNCTION	CODE	COMMENT *(continued)*
prmvci3.c	6015	prmvci3 - alocmsg failed in cihandqs.
prmvci3.c	6016	prmvci3 - could not get a timer for cifoswitch.
prspci3.c	6020	PC command not in maintenance queue.
prspci3.c	6021	Unknown opcode in PC response. Format of additional string information is defined as: *a b a* = response word 1 (hex). *b* = response word 2 (hex).
prspci3.c	6022	Unknown PC asynchronous report type. Format of additional string information is defined as: *a b a* = response word 1 (hex). *b* = response word 2 (hex).
prspci3.c	6023	Connection report for unit not in standby state. Format of additional string information is defined as: *a a* = unit state (hex).
prspci3.c	6024	Unrecognized async error report type.
prspci3.c	6025	Unable to get header update timing index.
prspci3.c	6026	Unrecognized async read priority. Format of additional string information is defined as: *a a* = priority value number (hex).
prspci3.c	6027	Failed to get connection wait timer. Format of additional string information is defined as: *a b a* = portswitch status (hex). *b* = number of portswitch failures (hex).
prspci3.c	6028	Device switched to OOS unit (HIT).
prspci3.c	6029	Device not switched; could not get a mate on disconnect. Format of additional string information is defined as: *a b a* = portswitch status (hex). *b* = number of portswitch failures (hex).
prspci3.c	602a	Could not get a mate; device restored. Format of additional string information is defined as: *a b a* = portswitch status (hex). *b* = number of portswitch failures (hex).
prspci3.c	602b	Controller reported excessive BREAKs on subdevice. Format of additional string information is defined as: *a b a* = response word 1 (hex) *b* = response word 2 (hex) If *b* = 31000000 then high priority input. If *b* = 32000000 then base (low) priority input.
ptrpci3.c	6030	Unknown ost code. Format of additional string information is defined as: *a a* = OST type (hex).
prstci3.c	603a	Restore failure during restart.
prstci3.c	603b	Invalid restore type.

FUNCTION	CODE	COMMENT *(continued)*
prstci3.c	603c	Unable to get logical date pointer.
prstci3.c	603d	Unable to retrieve ttopts or ciopts.
prstci3.c	603e	Unable to retrieve mdct.
prstci3.c	603f	prstci3 - alocmsg failed in `cihandqs()`.
ciexec.c	6040	Unknown maintenance opcode. Format of additional string information is defined as: *a b a* = maintenance command opcode (hex). *b* = option record pointer (hex).
ciexec.c	6041	Unable to find page table address.
ciexec.c	6042	Could not get a timer to reschedule I/O during port switch.
ciexec.c	6043	Could not get a timer to still hold I/O.
ciexec.c	6044	No active device to process held I/O.
ciexec.c	6045	Failed to get mate; no active device to process held I/O.
ciexec.c	6046	Could not get scratch area for any device held I/O.
ciexec.c	6048	Unable to add maintenance queue. Format of additional string information is defined as: *a b* [*b*] [*b*] [*b*] [*b*] *a* = command to be added *b* = commands on the maintenance queue (up to 5 of these).
ciexec.c	6050	Fail to push PC command queue. Format of additional string information is defined as: *a b c a* = command word 1 (hex). *b* = command word 2 (hex). *c* = message pointer (hex).
ciexec.c	6051	Unrecognized PC command code. Format of additional string information is defined as: *a a* = pc opcode.
cipcreat.c	6060	Unable to be created by non-active subdevice.
cipcreat.c	6061	Number of pcreate attempts >THRESHOLD.
cisupv.c	6062	Index bad when pcreate timer fires. Format of additional string information is defined as: *a a* = channel id (hex).
cisupv.c	6063	Unable to allocate msg buffer. Format of additional string information is defined as: *a a* = channel id (hex).
cisupv.c	6064	Fail to queuem supervisor pcreate msg. Format of additional string information is defined as: *a a* = channel id (hex).
cipcreat.c	6070	Unable to send signal in high priority.

FUNCTION	CODE	COMMENT *(continued)*
cipcreat.c	6071	Unable to send signal for unclear priority.
ciswitch.c	6080	Switching attempts >THRESHOLD. Format of additional string information is defined as: *a a* = number of portswitch failures (hex).
ciswitch.c	6081	timreq1 failure on port switch DTR timing. Format of additional string information is defined as: *a b a* = portswitch status (hex). *b* = number of portswitch failures (hex).
ciswitch.c	6082	timreq1 failure on port switch DTR on timing. Format of additional string information is defined as: *a b a* = portswitch status (hex). *b* = number of portswitch failures (hex).
ciswitch.c	6083	No standby mate device for port switch.
ciswitch.c	6084	Forced switch attempts >THRESHOLD. Format of additional string information is defined as: *a a* = number of portswitch failures (hex).
ciswitch.c	6085	`timreq1()` failure on forced port switch. Format of additional string information is defined as: *a b a* = portswitch status (hex). *b* = number of portswitch failures (hex).
ciswitch.c	6086	Could not get UCB for forced switch cifoswitch.
ciswitch.c	6087	Device in wrong state to switch.
ciswitch.c	6088	Device in wrong state and so is mate to do forced switch. Format of additional string information defined as: *a b a* = portswitch status (hex). *b* = number of portswitch failures (hex).
ciswitch.c	6089	Could not get a timer to wait for connection forced switch. Format of additional string information is defined as: *a b a* = portswitch status (hex). *b* = number of portswitch failures (hex).
ciswitch.c	608a	Could not get UCB ciswfon.
ciswitch.c	608b	Could not switch; device not in good state. Format of additional string information is defined as: *a b a* = portswitch status (hex). *b* = number of portswitch failures (hex).
ciswitch.c	608c	Switch delay timer fired; other device not in a good state to switch.
ciswitch.c	608d	Portswitch fail print turned off. Format of additional string information is defined as: `SWITCH FAIL PRINT OFF`

FUNCTION	CODE	COMMENT *(continued)*
prstci3.c	60a0	Restore-timer fired. Format of additional string information is defined as: *a b c a* = command word 1 (hex). *b* = command word 2 (hex). *c* = command opcode (hex).
prmvci3.c	60b0	Cannot ci_opt record.
prmvci3.c	60b1	Cannot get MDCT record.
prmvci3.c	60b2	Invalid type of flshsrch.
prmvci3.c	60b8	Old Message should not be around. Format of additional string information is defined as: X'*a* X'*b* *a* = message pointer. *b* = message type.
prmvci3.c	60b9	Found write message on audit. Format of additional string information is defined as: X'*a* X'*b* *a* = message pointer. *b* = ms_from field of message (hex).
prmvci3.c	60ba	Message for audit not found. Format of additional string information is defined as: X'*a* X'*b a* = message pointer. *b* = io segment id.
prmvci3.c	60bb	Unknown message typed owned. Format of additional string information is defined as: X'*a* X'*b* *a* = message pointer. *b* = message type.
prmvci3.c	60bc	Message audit for read message. Format of additional string information is defined as: X'*a* X'*b* *a* = message pointer. *b* = ms_from field of message (hex).
cisupv.c	60c0	Process manager fails to respond to pcreate message. Format of additional string information is defined as: *a b c a* = device status (hex). *b* = channel id (hex). *c* = channel id flags (hex).
cisupv.c	60c1	Unable to get ucbrec by get_llarec call.
ciexec.c	60d0	cilogical pointer NULL.
ciexec.c	60d1	Could not get any device scratch area for switchable device.
ciexec.c	60d2	ci scratch pointer NULL.
ciqueue.c	60e0	Put queue type error. Format of additional string information is defined as: *a a* = CIH queue type (decimal).
ciqueue.c	60e1	Get queue type error. Format of additional string information is defined as: *a a* = CIH queue type (decimal).
ciqueue.c	60e2	Delete queue type error. Format of additional string information is defined as: *a a* = CIH queue type (decimal).

FUNCTION	CODE	COMMENT *(continued)*
ciqueue.c	60e3	Dump queue type error. Format of additional string information is defined as: *a a* = channel flags (hex).
ciqueue.c	60e4	Unknown qtype type - ciniphy. Format of additional string information is defined as: *a a* = CIH queue type (hex).
ciqueue.c	60e5	Queue type error - cisrch. Format of additional string information is defined as: *a a* = CIH queue type (decimal).
ciqueue.c	60e6	Queue type error - cisrchp. Format of additional string information is defined as: *a a* = CIH queue type (decimal).
ciqueue.c	60e7	Queue type error - ciinitq. Format of additional string information is defined as: *a a* = CIH queue type (decimal).
ciqueue.c	60e8	Queue damaged - cigetq. Format of additional string information is defined as: `CIH QUEUE DAMAGED` *a a* = CIH queue type (decimal).
prstci3.c	6201	Invalid type of restart / restore.
prstci3.c	6202	`pushq1()` returned a failure.
tycfrmt.c	6301	getopt failure.
tycfrmt.c	6302	get_llarec (ttopt_rec) failure.
tyrdwrt.c	6401	getopt failure.
tyrdwrt.c	6402	Read job failed after failures to access DMA slot.
tyrdwrt.c	6403	Write job failed after failures to access DMA slot.
prmvci3.c	6901	pushq1 returned failure.
ptrpci3.c	6a01	LDIN partition invalid for SETTY.
ptrpci3.c	6a02	LDIN partition invalid for GETTY.
ptrpci3.c	6a07	Iomap for SETTRAP OST failed.
ptrpci3.c	6a08	Iomap for GETTRAP OST failed.
ptrpci3.c	6a09	OST code unknown to handler.
ptrpaux.c	6b01	getopt failure in `tty_to_ci()`.
ptrpaux.c	6b02	get_llarec (ttopt_rec) failure in `tty_to_ci()`.
ptrpaux.c	6b03	getopt failure in `ci_to_tty()`.
ptrpaux.c	6b04	get_llarec (ttopt_rec) failure in `ci_to_tty()`.
prspci3.c	6d01	PCSD response opcode not recognized (Base priority).
prspci3.c	6d02	PCSD response opcode not recognized (High priority read).
prspci3.c	6d03	PCSD response opcode not recognized (High priority write).
prspci3.c	6d04	PCSD cmd-destination field not recognized.

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FUNCTION	CODE	COMMENT *(continued)*
prspci3.c	6d05	DMA slot removal failed after 'transmit long' PCSD.
prspci3.c	6d06	DMA slot removal failed after 'set options' PCSD.
prspci3.c	6d07	DMA slot removal failed after high priority 'transmit long' PCSD.
prspci3.c	6d08	DMA slot removal failed after 'rcv long' response. (Base priority).
prspci3.c	6d09	DMA slot removal failed after 'rcv long' response. (High priority).
tyrwrite.c	6e01	Received write-response but WCQ was empty.
tyrwrite.c	6e02	Fixed field in response different from that in the command.
tyrwrite.c	6e03	Unknown response case.
tyrshrt.c	6f01	Received rcv-short response but RCQ was empty.
tyrshrt.c	6f02	Fixed field in response different from that in the command.
tyrlong.c	7001	Received rcv-long response but RCQ was empty.
tyrlong.c	7002	DMA slot removal failed after rcv-long response.
tyrlong.c	7003	Read response received but RCQ was empty.
tyrlong.c	7005	Read response received but RCQ was empty.
tyrlong.c	7007	Read response received but RCQ was empty.
tysdrst.c	7101	SD_REST response received, but no command sent.
tysdrst.c	7102	User-completion-code error (Boot Restore).
tyrasync.c	7201	Connection reported but TTY not restored.
tyrasync.c	7202	Async report not recognized.
tyrasync.c	7203	Warning: connection reported, but supervisor still up.
tyrasync.c	7204	getmdct failure.
tyrasync.c	7205	getopt failure.
tyrasync.c	7206	get_llarec (ttopt_rec) failure.
tyrasync.c	7207	get-llarec (cdopt_rec) failure.
tymsack.c	7301	No MSACK message is expected.
tymsack.c	7302	max number of P_CREAT attempts.
tymsack.c	7303	pushq1 failure.
tyswitch.c	7401	Wrong index passed to time-out routine.
tyswitch.c	7402	Unable to get mdct from data base.
tyswitch.c	7403	Unable to send command to PC via pushq1.
tyswitch.c	7404	Invalid combination of t_status flags.

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FUNCTION	CODE	COMMENT *(continued)*
tyswitch.c	7405	Unable to return to controlling PC after switchover failure.
tyswitch.c	7406	Both switchable subdevices are in the ACTIVE state, or unable to return to 'at rest' PC after switchover failure.
tyswitch.c	7407	Unable to handle S/D msg due to earlier 7402 error.
tyswitch.c	7408	Invalid cmd_type in SW msg.
tyswitch.c	7409	Invalid msg sub-type in a received IORID ms_type.
tyswitch.c	740a	Unable to send cmd to PC via call to `pushg1()`.
tyswitch.c	740c	Unable to request timer via call to `timereq1()`.
sttyproc.c	7a04	Unable to send cmd to PC because PC queues are full.
tytime.c	7501	`tyrstsupv()` - wrong timeout index.
tytime.c	7502	`tyrstsupv()` - no previous failure in P_CREAT attempt.
tytime.c	7503	`tyrestto()` - no pending restoral.
tytime.c	7504	`tyrestto()` - wrong timeout index.
tytime.c	7514	`tyholdto()` - wrong timeout index.
tytime.c	7521	`tyoosto()` - wrong timeout index.
tytime.c	7522	`tyoosto()` - SD_REMOVE request timed out.
tystrtsupv.c	7601	Max number of P_CREAT attempts.
tystrtsupv.c	7602	getmdct failure.
tyrsderr.c	7701	Intercharacter timeout detected.
tyrsderr.c	7702	Acknowledgement timeout detected.
tyrsderr.c	7703	Suspend-output timeout detected.
tyrsderr.c	7704	Line printer error detected.
tyrsderr.c	7706	Async report not recognized.
tyrcntrl.c	7801	Received disconnect response but no cmd sent.
tyrcntrl.c	7802	TY_CNTRL response not recognized.
tycmdproc.c	7902	Error in formatting PCSD command.
tycmdproc.c	7903	pushq1 returned failure.
tycmdproc.c	7904	DMA slot removal failed after PCSD command formatting error.
tycmdproc.c	7905	DMA slot removal failed after pushq1 failure.
sttyproc.c	7a01	DMA slot assignment failed.
sttyproc.c	7a02	`pushq1()` returned failure.
sttyproc.c	7a03	`getpta()` returned failure.

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FUNCTION	CODE	COMMENT *(continued)*
`tyrslnk.c`	`7f01`	Received rcv-short-linked response, but RCQ was empty.
`tyrslnk.c`	`7f02`	Fixed field in response different from that in the command.
`tyrslnk.c`	`7f03`	DMA slot removal failed after rcv-short-linked response.
MAINT HANDLER		
`mainthan.c`	`8000`	ucbptr is zero.
`mainthan.c`	`8001`	Unit is not in correct state for diagnosis.
`mainthan.c`	`8002`	u_stat is in undefined state.
`mainthan.c`	`8003`	ucbptr is zero.
`mainthan.c`	`8004`	ucbptr is different than what came with the iopen.
`mainthan.c`	`8005`	Failed iolock.
`mainthan.c`	`8006`	Error on asndma1 function.
`mainthan.c`	`8007`	Handler is not in DMAEXP state.
`mainthan.c`	`8008`	Error on asndma1 function.
`mainthan.c`	`8009`	Error on pushing command into queue.
`mainthan.c`	`800a`	Error on timreq1 function.
`mainthan.c`	`800b`	ucbptr is zero.
`mainthan.c`	`800c`	ucbptr is different than what came with the iopen.
`mainthan.c`	`800d`	Unrecognized message from iop driver.
`mainthan.c`	`800e`	Function `uniolock()` returned FAIL during IOCLOSE processing.
`mainthan.c`	`800f`	Function `uniolock()` returned FAIL after `asndma1()` failure.
`maintfun.c`	`8100`	Detach from interrupts must be babbling.
`maintfun.c`	`8101`	Failed to detach from interrupts.
`maintfun.c`	`8102`	Byte cnt returned from IOP is not correct.
`iomaint.c`	`8103`	The call to `getpta()` failed.
`iomaint.c`	`8104`	The `asndma21()` function failed to assign DMA slot number.
`iomaint.c`	`8105`	The `asndma21()` function failed to assign DMA slot number.
`iomaint.c`	`8106`	The call to `getpta()` failed.
`iomaint.c`	`8107`	The `sdc32b()` function call failed.
`iomaint.c`	`8108`	The `timreq()` function call failed.
`iomaint.c`	`8109`	The `cfread()` function was unsuccessful in reading the pumpcode file.

FUNCTION	CODE	COMMENT *(continued)*
iomaint.c	810a	The getsucbl() function was returned null UCB pointer to the IOP.
maintfun.c	8200	Detach from interrupts must be babbling.
maintfun.c	8201	Failed to detach from interrupts.
maintfun.c	8400	Wrong index for timeout.
maintfun.c	8401	Time out function and handler in wrong state.
maintfun.c	8500	Level is not equal to 1,2,3.
iomaint.c	8600	ucbptr is zero.
iomaint.c	8601	ucbptr is different then what came with iopen.
iomaint.c	8602	Maint command in NONINT state and not PIO.
iomaint.c	8603	Maint command in NONINIT state and not rmv or rst.
iomaint.c	8604	IOP driver has req dgn be aborted.
iomaint.c	8605	Maint handler is in wrong state for iomaint msg.
iomaint.c	8606	Request for timreq failed for iomaint msg.
iomaint.c	8607	Attach to interrupt failed.
iomaint.c	8608	Enable interrupts failed.
iomaint.c	8609	SDC timreq.
iomaint.c	860a	Not diag controller should not ask for this sdc attach.
iomaint.c	860b	Attach to interrupt failed.
iomaint.c	860c	Enable interrupts failed.
iomaint.c	860d	DIAGC is diagnosing controller should not ask for attach.
iomaint.c	860e	Detach from interrupts.
iomaint.c	860f	DIAGC diagnosing controller should not not ask for detach.
iomaint.c	8610	Error in trying to remove unit.
iomaint.c	8611	Attach to interrupt failed.
iomaint.c	8612	Enable interrupts failed.
iomaint.c	8613	u_stat is undefined state.
iomaint.c	8614	Error trying to restore unit.
iomaint.c	8615	Error on timing req DGNDMA.
iomaint.c	8616	getdmaa returned an error.
iomaint.c	8617	Received WSETUP0 before DGNDMA.
iomaint.c	8618	Received WSETUP1 before WSETUP0.
iomaint.c	8619	Received DMAEND before WSETUP1.
iomaint.c	861a	Failed uniolock.
iomaint.c	861b	getdmaa returned an error.
iomaint.c	861c	DIAGC has sent bad data in statword and operword.

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FUNCTION	CODE	COMMENT *(continued)*
`iomaint.c`	`861d`	Unable to push a command into the queue.
`iomaint.c`	`861e`	Error on time request.
`iomaint.c`	`861f`	Function `uniolock()` returned FAIL during WSETUP0 processing.
`iomaint.c`	`8620`	Function uniolock() returned FAIL.
`maintfun.c`	`8700`	Took interrupt handler in wrong state.
`maintfun.c`	`8701`	Detach failed.
`maintfun.c`	`87f1`	Cannot convert iorid to ucblp.
DUI HANDLER		
`pmsgdu3.c`	`9001`	Unable to store a command sent by Application Kernel.
`pmsgdu3.c`	`9002`	pushq1 failure.
`pmsgdu3.c`	`9003`	DUI ERROR message received from Application Kernel.
`pmsgdu3.c`	`9004`	getpta failure.
`pmsgdu3.c`	`9005`	asndma failure for restore parameters.
`pmsgdu3.c`	`9006`	asndma failure for DUI table.
`pmsgdu3.c`	`9007`	getopt failure.
`pmsgdu3.c`	`9010`	Scratch area order entry not NULL (case D_START).
`pmsgdu3.c`	`9011`	Scratch area order entry not NULL (case D_STOP).
`pmsgdu3.c`	`9012`	Scratch area order entry not NULL (case D_RMRQAY).
`prspdu3.c`	`9101`	TN82 Software Error.
`prspdu3.c`	`9102`	Unrecognized Asynchronous report received.
`prspdu3.c`	`9103`	deldma1 failure.
`prspdu3.c`	`9104`	asndma1 failure.
`prspdu3.c`	`9105`	Received restore command response w / Null msg. pointer.
`prspdu3.c`	`9106`	Received successful remove cmd from unknown dui msg type.
`prspdu3.c`	`9107`	Remove command from D_STOP msg failed.
`prspdu3.c`	`9108`	Remove command from D_RMRQAK msg failed.
`prspdu3.c`	`9109`	Unsuccessful remove cmd response from unknown msg.
`prspdu3.c`	`910a`	Received response from unconditional remove.
`prspdu3.c`	`910b`	Received unsuccessful response from remove command.
`prspdu3.c`	`910c`	Received unrecognized response from PC.

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FUNCTION	CODE	COMMENT *(continued)*
prspdu3.c	910d	Received RESTORE command response of unknown origin.
prspdu3.c	910e	Received REMOVE command response of unknown origin.
prstdu3.c	9201	timreq1 failure.
prstdu3.c	9202	IODRV sent illegal restore case.
prmvdu3.c	9301	timreq1 failure.
duchgstate.c	9400	Received illegal usr_type.
duisendmsg.c	9500	Requested msg type to send to Application Kernel is illegal.
pinitdu3.c	9600	Invalid type of initializing.
duifuncts.c	9901	Cannot store PCSD command.
SCC AND SDL HANDLER		
prstcp3.c	a010	Restart during growth.
prstcp3.c	a012	Failure to obtain option block, restore fails.
prstcp3.c	a014	Restore fails, device failed growth.
prstcp3.c	a015	Restore fails, device has no memory status.
prstcp3.c	a017	Restart failed, failed to obtain option block.
prstcp3.c	a019	Received a restart during growth, restart fails.
prstcp3.c	a01a	Restart failed, device has no memory status.
prstcp3.c	a01c	Restart failed, device has no memory status.
prstcp3.c	a01d	Restore type unknown.
prstcp3.c	a01e	Restart failed, device failed growth.
prstcp3.c	a026	Unable to obtain PTA and SEGID for PCSD scratch area.
prstcp3.c	a027	Unable to obtain DMA job for PCSD scratch area.
prstcp3.c	a028	Unable to obtain DMA job for common scratch area.
prstcp3.c	a030	Invalid restore type.
pinitcp3.c	a100	Unknown initialization type.
pmsgcp3.c	a212	NULL common scratch area pointer.
pmsgcp3.c	a222	Unknown open type.
ptrpcp3.c	a302	NULL common scratch area pointer.
prspcp3.c	a414	Invalid Dial-out response - feature not supported.
prspcp3.c	a417	Unknown base-priority PCSD response type.
prspcp3.c	a418	Unknown high-priority PCSC response type.
prspcp3.c	a419	Invalid priority type.
prspcp3.c	a422	Unexpected restore-rsp from a restored PCSD.
prspcp3.c	a423	Unexpected restore-rsp from an OOS PCSD.

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FUNCTION	CODE	COMMENT *(continued)*
prspcp3.c	a431	Unexpected CONNECT-report.
prspcp3.c	a433	DIAL-OUT-FAILURE-report not yet supported.
prspcp3.c	a434	Invalid asynchronous report from PCSD.
prspcp3.c	a435	Failure to send RECEIVE jobs to PCSD.
prspcp3.c	a436	DISCONNECT-report not yet supported.
prspcp3.c	a442	Unable to allocate an input buffer.
prspcp3.c	a443	Unable to send a RECEIVE-command.
prspcp3.c	a445	No RECEIVE-jobs at PCSD.
prspcp3.c	a450	Failure to send RECEIVE-jobs to PCSD.
prspcp3.c	a451	Unexpected TRANSMIT-response.
prspcp3.c	a452	Error on TRANSMIT-response for XID ack packet - Dial-Up link.
prspcp3.c	a453	Error in TRANSMIT-job.
prspcp3.c	a461	Unexpected RECEIVE-response.
prspcp3.c	a462	Error in RECEIVE-job - Private line link.
prspcp3.c	a463	Error in RECEIVE-job - Dial-Up link.
prspcp3.c	a470	Hardware Error/Link disconnect report.
prspcp3.c	a471	Unknown Hardware Error.
prspcp3.c	a472	Invalid BX.25 level 2 protocol line address on TRANSMIT-job.
prspcp3.c	a473	PCSD microcode has detected an operational error. Format of additional information is defined as: *a b a* = word 1 of error response (hex). *b* = word 2 of error response (hex).
prspcp3.c	a474	BX.25 level 2 N2 count exceeded; number of retransmissions exceeded.
prspcp3.c	a475	Invalid asynchronous error report.
prspcp3.c	a476	Cause of Receive Frame-reject not known.
prspcp3.c	a477	Cause of Transmit Frame-reject not known.
prspcp3.c	a478	Aggregate one-count error type not known.
prspcp3.c	a479	Receive-frame reject.
prspcp3.c	a47a	Frame-reject probable line address conflict.
prspcp3.c	a47b	Transmit-frame reject.
prspcp3.c	a47c	This error type reported by DDCMP version.
prspcp3.c	a47d	Error in RESTORE-data - private line link.
prspcp3.c	a481	Unable to obtain timer entry for Dial-Up DT2.
prspcp3.c	a482	Unable to obtain PCSD option block from ECD - Dial-Up link.
prspcp3.c	a483	Unable to send RECEIVE-command for XID packet.
prspcp3.c	a484	Failure to send RECEIVE-jobs to PCSD.

FUNCTION	CODE	COMMENT *(continued)*
prspcp3.c	a492	Unable to obtain PCSD option block from ECD - Dial-Up link.
prspcp3.c	a493	Unable to send TRANSMIT-command for XID acknowledgement packet.
prspcp3.c	a4a1	Unable to obtain timer entry for dial-up DT2.
prspcp3.c	a4b1	Unable to obtain timer entry for dial-up DT3.
prspcp3.c	a4d1	Unable to initialize Plants Measurement database.
prspcp3.c	a4d2	Unable to create PCSD record in PM database.
prspcp3.c	a4d3	Unable to read PCSD record in PM database.
prspcp3.c	a4d4	Unable to update PCSD record in PM database.
pdmod.c	a505	Unable to push PCSD command.
prmvcp3.c	a507	The go-out-of-service (GOOS) timer is active when a remove request is made. Format of additional information is defined as: *a b a* = word of pdstat (hex). *b* = short word of GOOS timer index (hex).
prmvcp3.c	a508	The GOOS timer is invalid.
ldmod.c	a611	Fatal error reported on the PCSD.
ldmod.c	a612	Reported PCSD error not recognized.
ldmod.c	a614	Multiple-active-link config not supported.
ldmod.c	a616	Invalid link configuration.
ldmod.c	a636	Invalid link configuration.
ldmod.c	a637	Multiple-active-link config not supported.
ldmod.c	a644	Multiple-active-link config not supported.
ldmod.c	a646	Invalid link configuration.
ldmod.c	a654	Multiple-active-link config not supported.
ldmod.c	a655	Invalid link configuration.
ldmod.c	a663	Multiple-active-link config not supported.
ldmod.c	a664	Invalid link configuration.
ldmod.c	a665	No ucblp available - simplex config.
ldmod.c	a666	No ucblp available - duplex config.
ldmod.c	a669	Failure to obtain ucblp.
ldmod.c	a66a	Failure to obtain second ucblp.
ldmod.c	a66b	No PCSD is active.
ldmod.c	a66c	Number of PCSDs is greater than 2.
ldmod.c	a66d	Second RID equal to NULL and not PCSD is active.
ldmod.c	a673	Multiple-active-link config not supported.
ldmod.c	a674	Invalid link configuration.
ldmod.c	a675	Reporting PCSD not the active unit.
ldmod.c	a681	Invalid remove-type.
ldmod.c	a684	Multiple-active-link config not supported.

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FUNCTION	CODE	COMMENT *(continued)*
ldmod.c	a685	Invalid link configuration.
ldmod.c	a691	NULL ucblp for simplex config.
ldmod.c	a692	Multiple-active-link config not supported.
ldmod.c	a693	No active device for duplex config.
ldmod.c	a694	NULL ucblp for duplex config.
ldmod.c	a699	Invalid link configuration.
ldmod.c	a6a0	Restore-failure in an OOS (internal state) PCSD.
ldmod.c	a6a3	Link-available-report from an OOS (internal state) PCSD.
ldmod.c	a6a4	Invalid stimulus for an OOS (internal state) PCSD.
ldmod.c	a6a5	Invalid stimulus for a GOOS (internal state) PCSD.
ldmod.c	a6aa	Connection-timeout for a restored (internal state) PCSD.
ldmod.c	a6ab	Invalid stimulus for a restored (internal state) PCSD.
ldmod.c	a6ae	Invalid stimulus for an active (internal state) PCSD.
ldmod.c	a6b2	Failure to get ucblp.
ldmod.c	a6b3	Invalid stimulus for a standby (internal state) PCSD.
ldmod.c	a6b4	Invalid stimulus for S1_RECOV state.
ldmod.c	a6b7	Invalid stimulus for S1_INIT state.
ldmod.c	a6ff	Invalid internal state for PCSD.
ldmod.c	a6be	Multiple-active-link config not supported.
ldmod.c	a6bf	Invalid link configuration.
ldmod.c	a6c5	Multiple-active-link config not supported.
ldmod.c	a6c6	Invalid link configuration.
ldmod.c	a6c8	Connection timeout for a simplex PCSD.
ldmod.c	a6c9	Connection timeout for a duplex config.
ldmod.c	a6ca	Multiple-active-link config not supported.
ldmod.c	a6cb	Invalid link configuration.
ldmod.c	a6d3	Multiple-active-link config not supported.
ldmod.c	a6d4	Invalid link configuration.
ldmod.c	a6d8	NULL timeout flag.
ldmod.c	a6d9	Timeout flag different from stored value.
ldmod.c	a6da	Failure to get ucblp.
ldmod.c	a6db	No record of previously active PCSD.
ldmod.c	a6dc	Both PCSDs are OOS or GOOS (internal state).
ldmod.c	a6dd	Maximum number of timing periods.

FUNCTION	CODE	COMMENT *(continued)*
ldmod.c	a6de	Maximum number of timing periods, NULL ucblp.
ldmod.c	a6df	Maximum number of timing periods, NULL ucblp.
ldmod.c	a6e1	Multiple-active-link config not supported.
ldmod.c	a6e2	Invalid link configuration.
cminit.c	a712	Unable to obtain PTA and SEGID for common scratch area.
cminit.c	a716	Unable to obtain MDCT record.
chmod.c	a831	Invalid output action for PUTCHAR input.
chmod.c	a832	Invalid current output state for PUTCHAR input.
chmod.c	a833	Invalid return value for choastrat().
chmod.c	a835	Invalid closing action for PUTCHAR input.
chmod.c	a836	Invalid return value from chorstrat().
chmod.c	a841	Invalid input action for GETCHAR input.
chmod.c	a842	Invalid current state for GETCHAR input.
chmod.c	a843	Invalid return value from chiastrat().
chmod.c	a845	Invalid closing action for GETCHAR input.
chmod.c	a846	Invalid return value from chirstrat().
chmod.c	a847	Unable to unlink buffer of a zero-length data packet from the common handler queue.
chmod.c	a854	Unsuccessful transfer of all input data of user's buffer.
chmod.c	a855	Unsuccessful transfer of all input data to user's buffer.
chmod.c	a856	Unsuccessful transfer of requested input data.
chmod.c	a857	Invalid return value from chirstrat().
chmod.c	a858	Invalid current input state for GETCHAR input.
chmod.c	a859	Invalid return value from chiastrat().
chmod.c	a85a	Error encountered in background data transfer.
chmod.c	a861	Invalid action for output procedure continuation.
chmod.c	a862	Invalid current output state.
chmod.c	a865	Invalid return value from chorstrat().
chmod.c	a866	Invalid output state.
chmod.c	a867	Invalid return value from chorstrat().
chmod.c	a868	Invalid return value from choastrat().
chmod.c	a869	cphslfree is NULL.
chmod.c	a870	cphlkfree is NULL.
choastrat	a871	Invalid output state.

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FUNCTION	CODE	COMMENT *(continued)*
chiostrat.c	a881	More bytes of output than requested.
chiostrat.c	a882	Invalid output procedure flag.
chiostrat.c	a885	Partition in an invalid output state.
phmod.c	a910	Invalid system status being reported.
phmod.c	a941	Invalid return value from logical device handler.
mmmmod.c	aa00	`ioaddseg()` failed in case of IOREBOOT.
mmmmod.c	aa01	Invalid memory initialization type to `mminit()`.
mmmmod.c	aa10	Invalid init type.
mmmmod.c	aa20	Bad segment.
mmmmod.c	aa21	Queue is full.
mmmmod.c	aa30	`iogrowseg()` returned failure.
mmmmod.c	aa31	`ioaddseg()` returned failure.
mmmmod.c	aa40	`get_cell()` returned failure.
mmmod.c	aa41	No matching address and key found.
mmmod.c	aa50	Segment count greater than MAXSEGS.
mmmmod.c	aa51	`get_cell()` returned FAIL.
mmmmod.c	aa60	Bad segment.
mmmmod.c	aa70	`iogrowseg()` returned failure.
mmmmod.c	aa71	Bad segment.
mmmod.c	aa80	No matching address and key found.
mmmod.c	aa90	`get_cell()` returned failure.
mmmmod.c	aaa0	free_area number of cells zero.
mmmmod.c	aaa1	`iogrowseg()` returned failure.
mmmmod.c	aab0	vaddr and key invalid.
mmmmod.c	aab1	IODRV unable to grow segment.
pgrowcp3.c	ab00	Unknown growth type.
pgrowcp3.c	ab02	Failure to obtain option block, growth fails.
pgrowcp3.c	ab03	Degrow fails; memory not allocated at growth time.
pgrowcp3.c	ab04	Degrow fails; no memory status for this device.
pgrowcp3.c	ab06	Failure to obtain option block; boot restore fails.
pgrowcp3.c	ab08	Growth fails; memory allocation from SMC failed.
pgrowcp3.c	ab0a	Failed to obtain same ucb; boot restore fails.
chpcreat.c	ac01	No global free space for restio entry.
chpcreat.c	ac02	Index bad when pcreate timer fires. Format of additional string information is defined as: *a a* = channel id (hex).
chpcreat.c	acf3	chpcreat returned SUCCESS.
chpcreat.c	acff	findpid() returned non-NULL.
x3send.c	af00	BX.25 level 3 cannot restart with far end.
x3send.c	af01	Unexpected failure to send control packet.

FUNCTION	CODE	COMMENT *(continued)*
x3send.c	af02	Unexpected failure to send interrupt packet.
x3send.c	af03	Unexpected failure to send data packet.
NPH HANDLER		
psconn.c	b001	Invalid high level user protocol-id.
psconn.c	b002	Invalid application tag.
psdetach	b003	Unknown application tag.
psrstnp3	b101	DTE table full.
psinit	b302	RUNA record set_id not found.
psinit	b303	Failure to open cursor for sets.
pgrownp3.c	b500	Failure to obtain PCSD option block.
pgrownp3.c	b501	ACT internal state for DEGROW request.
pgrownp3.c	b502	Unknown internal state.
pgrownp3.c	b503	Unknown type of IODRV request.
pgrownp3.c	b504	Failure to get SEGID and PTA for buffer area.
pgrownp3.c	b505	Failure to allocate scratch memory.
pgrownp3.c	b506	Failure to get RESTORE PCSD.
pgrownp3.c	b507	Failure to get obtain ucblp.
pgrownp3.c	b508	Failure to allocate scratch memory.
pinitnp3.c	b580	Unknown type of IODRV request.
prstnp3.c	b600	ACT internal state for RESTORE request.
prstnp3.c	b601	Failure to RESTORE a PCSD.
prstnp3.c	b602	ACT internal state for NOT_IMPLICATED_RESTART request.
prstnp3.c	b603	Failure to RESTORE a PCSD.
prstnp3.c	b604	ACT internal state for IMPLICATED_RESTART request.
prstnp3.c	b605	Failure to obtain an IODRV timer element.
prstnp3.c	b606	Failure to RESTORE a PCSD.
prstnp3.c	b607	Unknown type of IODRV request.
prstnp3.c	b608	Memory allocation request in progress.
prstnp3.c	b609	Failed to allocate scratch memory.
prstnp3.c	b60a	Failure to get SEGID and PTA for PCSD scratch.
prstnp3.c	b60b	Failure to get DMA slot for PCSD scratch.
prstnp3.c	b60c	Failure to get DMA slot for buffer area.
prstnp3.c	b60d	Failure to obtain PCSD option block.
prstnp3.c	b60e	Somebody changed the option block.
prmvnp3.c	b680	ACT internal state for UNCONDITIONAL_REMOVE request.

FUNCTION	CODE	COMMENT *(continued)*
prmvnp3.c	b681	Failure to send GO_OUT_OF_SERVICE command to PCSD.
prmvnp3.c	b682	Failure to obtain IODRV timer element.
prmvnp3.c	b683	Unknown type of IODRV request.
prmvnp3.c	b684	Unknown type of IODRV request.
prmvnp3.c	b685	Unknown internal state.
prmvnp3.c	b686	OOS internal state for (UN)CONDITIONAL_REMOVE request.
prmvnp3.c	b687	OOS internal state for HALF_REMOVE request.
prmvnp3.c	b688	OOS internal state for unknown type of IODRV request.
prspnp3.c	b700	Unexpected RESTORE response, ACT internal state.
prspnp3.c	b701	Unexpected DIAL-OUT response, ACT internal state.
prspnp3.c	b702	Unknown PCSD response, ACT internal state.
prspnp3.c	b703	Unexpected RECEIVE report, INIT internal state.
prspnp3.c	b704	Unexpected TRANSMIT report, INIT internal state.
prspnp3.c	b705	Unexpected ASYNCHRONOUS report, INIT internal state.
prspnp3.c	b706	Unexpected DIAL-OUT response, INIT internal state.
prspnp3.c	b707	Unknown PCSD response, INIT internal state.
prspnp3.c	b708	Unexpected GO_OUT_OF_SERVICE response, OOS internal state.
prspnp3.c	b709	Unexpected RECEIVE report, OOS internal state.
prspnp3.c	b70a	Unexpected TRANSMIT report, OOS internal state.
prspnp3.c	b70b	Unexpected ASYNCHRONOUS report, OOS internal state.
prspnp3.c	b70c	Unexpected DIAL-OUT response, OOS internal state.
prspnp3.c	b70d	Unexpected PCSD response, OOS internal state.
prspnp3.c	b70e	Unexpected RESTORE response, RMVIP internal state.
prspnp3.c	b70f	Unexpected ASYNCHRONOUS_ERROR report, RMVIP internal state.

FUNCTION	CODE	COMMENT *(continued)*
prspnp3.c	b710	Unexpected RECEIVE report, RMVIP internal state.
prspnp3.c	b711	Unexpected TRANSMIT report, RMVIP internal state.
prspnp3.c	b712	Unexpected ASYNCHRONOUS report, RMVIP internal state.
prspnp3.c	b713	Unexpected DIAL-OUT response, RMVIP internal state.
prspnp3.c	b714	Unknown PCSD response, RMVIP internal state.
prspnp3.c	b715	Unexpected response; memory request in progress.
prspnp3.c	b716	Unexpected response, memory request failed.
prspnp3.c	b717	Unknown internal state.
prspnp3.c	b720	No jobs queued for input on PCSD.
prspnp3.c	b721	Error on a RECEIVE job.
prspnp3.c	b730	Error on a TRANSMIT job.
prspnp3.c	b740	Failure to initialize buffers.
prspnp3.c	b741	Failure to initialize scratch areas.
prspnp3.c	b742	Failure to obtain PCSD option block.
prspnp3.c	b750	Failure to send RESTORE command to PCSD.
prspnp3.c	b760	Failure to remove an IODRV timer element.
prspnp3.c	b761	CONNECT report received on a connected PCSD.
prspnp3.c	b762	No jobs queued for input on PCSD.
prspnp3.c	b763	Invalid DATA-SET DISCONNECT report.
prspnp3.c	b765	Unknown ASYNCHRONOUS report.
prspnp3.c	b770	Hardware error, link disconnect report.
prspnp3.c	b771	Unknown hardware error.
prspnp3.c	b772	PCSD software error.
prspnp3.c	b773	CRC error report.
prspnp3.c	b774	Invalid line address on a RECEIVE job.
prspnp3.c	b775	Invalid line address on a TRANSMIT job.
prspnp3.c	b776	N2 count exceeded.
prspnp3.c	b777	Frame reject received.
prspnp3.c	b778	Frame reject received, cause unknown.
prspnp3.c	b779	Frame reject transmitted.
prspnp3.c	b77a	Frame reject transmitted, cause unknown.
prspnp3.c	b77b	Frame reject transmitted; probable line address conflict.
prspnp3.c	b77c	Aggregate one-count error type unknown.
prspnp3.c	b77d	This error type reported by DDCMP version.
prspnp3.c	b77e	Error in RESTORE data.

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FUNCTION	CODE	COMMENT *(continued)*
prspnp3.c	b77f	Unknown asynchronous error report.
prspnp3.c	b790	Failure to allocate an input buffer.
prspnp3.c	b791	Failure to send a RECEIVE job to PCSD.
prspnp3.c	b792	RESTORE command timeout.
prspnp3.c	b793	CONNECT (level 2 protocol init.) timeout.
dimod.c	b800	Failure to get ucblp.
dimod.c	b805	Failure to push PCSD command.
dimod.c	b806	No jobs queued for input on PCSD.
dimod.c	b807	Failure to get ucblp.
dimod.c	b808	Failure to get ucblp.
plinit.c	ba01	Failure to get timer index from IODRV.
plrcv.c	ba11	Packet < 2 octets or invalid GFI or channel unassigned.
plrcv.c	ba12	Packet type invalid.
plrcv.c	ba13	RESTART INDICATION packet in state R3_RSTIND.
plrcv.c	ba14	Logical channel 0 in undefined state.
plrcv.c	ba15	RESTART INDICATION on non-zero channel in state P6_CLRREQ.
plrcv.c	ba16	RESTART INDICATION on non-zero channel in state D2_RESREQ.
plrcv.c	ba17	RESTART INDICATION on non-zero channel in state R2_RESREQ.
plrcv.c	ba18	Logical channel in an undefined state.
plrcv.c	ba19	Illegal channel and packet type combination.
plrcv.c	ba1a	Invalid packet length. Format of additional information is defined as: *a b c a* = packet type (hex) *b* = number of bytes in packet (decimal) *c* = channel number (decimal).
plcaccept.c	bb01	Logical channel in an undefined state.
pldacks.c	bb02	Logical channel in an undefined state.
plexdt.c	bb03	Logical channel in an undefined state.
plrest.c	bb04	Logical channel in an undefined state.
pldacks.c	bb05	Read substate of the logical channel undefined.
plrest.c	bb06	RESET INDICATION packet in state D3_RESIND.
plcconfi.c	bb11	CALL CONNECTED packet in state R2_RSTREQ.
plcindic.c	bb21	INCOMING CALL packet in state R2_RSTREQ or P6_CLRREQ.
plcindic.c	bb22	Originally-called DTE address is Out of Order in Call Redirection Notification facility.

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FUNCTION	CODE	COMMENT *(continued)*
plcindic.c	bb23	Originally-called DTE address is Busy in Call Redirection Notification facility.
plcindic.c	bb24	Non-supported reason for redirecting originally-called DTE address in Call Redirection Notification facility.
plcindic.c	bb25	Originally-called DTE address is Out of Order in Called Line Address Modified Notification facility.
plcindic.c	bb26	Originally-called DTE address is Busy in Called Line Address Modified Notification facility.
plcindic.c	bb27	Non-supported reason for modifying originally-called DTE address in Called Line Address Modified Notification facility.
pldiscr.c	bb41	Logical channel in an undefined state.
pldiscr.c	bb42	CLEAR INDICATION packet in state P7_CLRIND.
pldiscr.c	bb43	Logical channel in an undefined state.
pldiscr.c	bb44	CLEAR CONFIRMATION in state R2_RSTREQ or R3_RSTIND.
pldiscr.c	bb45	Logical channel in an undefined state.
plrest.c	bb70	RESET INDICATION packet in state R2_RSTREQ or R3_RSTIND.
plrest.c	bb71	RESET CONFIRMATION in state R2_RSTREQ or R3_RSTIND.
plrest.c	bb72	Reset received with diag code of "d-bit not supported."
plexdt.c	bb81	Logical channel in an undefined state.
plexdt.c	bb82	Logical channel in an undefined state.
plrndata.c	bc01	Logical channel in an undefined state.
plrndata.c	bc02	Invalid return code from "copypacket" function.
plrndata.c	bc03	Read substate of logical channel undefined.
plrndata.c	bc05	Read substate of logical channel undefined.
plrndata.c	bc70	DATA packet in state R2_RSTREQ or R3_RSTIND.
plsndata.c	bd01	Send substate of logical channel undefined.
plsndata.c	bd02	Logical channel in an undefined state.
plsndata.c	bd03	Invalid return code from "edmacopy" function.
plsndata.c	bd04	Send substate of channel undefined.
plsndata.c	bd80	RR/RNR packet in state R2_RSTREQ or R3_RSTIND.
pltime.c	be00	T22 timer not active in state D2_RESREQ.
pltime.c	be01	T21 timer not active in state P2_CALLREQ.

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FUNCTION	CODE	COMMENT *(continued)*
pltime.c	be02	T23 timer not active in state P6_CLRREQ.
pltime.c	be03	T20 timer not active in state R2_RSTREQ.
TP HANDLER		
md_buffer.c	c101	Wait for a buffer; type is unknown.
md_buffer.c	c111	Failure to format an AK, EA, or RJ TPDU.
md_init.c	c121	Failure to read the "TPH 0" UCB ECD record.
md_init.c	c122	Failure to read the tphopt ECD record for TPH.
md_init.c	c125	Failure to retrieve RID for ECD record being changed.
md_init.c	c126	Failure to find tsapinfo record RID in table; DELETE operation.
md_init.c	c131	Failure to read the tphopt ECD record for TPH.
md_init.c	c133	Failure to retrieve tsapinfo record; INSERT operation.
md_init.c	c134	Failure to retrieve tsapinfo record; UPDATE operation.
md_init.c	c135	Failure to retrieve NSAP to DTE mapping table; DELETE operation.
md_init.c	c136	Failure to retrieve NSAP to DTE mapping table; UPDATE operation.
md_init.c	c137	Failure to retrieve NSAP to DTE mapping table; INSERT operation.
md_init.c	c141	Request for memory from the IODRV failed.
md_timers.c	c142	Request for memory for TPH input buffer failed.
md_input.c	c201	Unknown address type for TS user data area.
md_input.c	c202	Unknown state of the TC input queue.
md_input.c	c211	Unknown address type for TS user data area.
md_input.c	c212	Unknown TPDU type for a NPH RDCMP.
md_input.c	c213	Unknown NPH return code value for a NPH RDCMP.
md_output.c	c217	NULL value passed in as TPH memory buffer ptr.
md_input.c	c221	Unknown address type for TS user data area.
md_input.c	c222	Unknown state of the TC input queue.
md_input.c	c223	TS user read error; class 2 TC.
md_input.c	c224	TS user read error; class 2 TC.
md_input.c	c225	Peer TE sent invalid TPDU-NR in DT TPDU; class 0 or 2 TC.
md_input.c	c226	TS user read error; class 0 or 2 TC.

FUNCTION	CODE	COMMENT *(continued)*
md_input.c	c227	Peer TE sent invalid TPDU-NR in DT TPDU; class 0 or 2 TC.
md_input.c	c228	Peer TE sent invalid TPDU-NR in DT TPDU; class 0 or 2 TC.
md_input.c	c229	TS user read error; class 0 or 2 TC.
md_timers.c	c231	Timeout for unknown timer type.
md_timers.c	c232	Timeout for invalid TC local reference.
md_timers.c	c233	Invalid timeout element for timer type.
tl_buffers.c	c301	Cannot find TPDU on retain queue.
tl_buffers.c	c302	Retain queue is empty.
tl_conn.c	c311	DR TPDU not found in the retained queue.
tl_conn.c	c315	Failure to initiate TCONreq; invalid predicate, P1 or P3.
tl_conn.c	c316	Failure to initiate TCONreq; all tc_data structures in use.
tl_conn.c	c317	Failure to initiate TCONreq; no tsapinfo for TSAP addresses specified.
tl_conn.c	c318	Failure to initiate TCONreq; TS user data length exceeds maximum.
tl_conn.c	c319	Failure to initiate TCONreq; all nc_data structures in use.
tl_conn.c	c320	Failure to initiate TCONreq; invalid class in tsapinfo.
tl_conn.c	c321	DR TPDU not found in the retained queue.
tl_conn.c	c322	Failure handling incoming CR; cannot allocate tc_data.
tl_conn.c	c323	Failure handling incoming CR; cannot assign nc_data.
tl_conn.c	c324	Failure handling incoming CR; cannot assign nc_data.
tl_conn.c	c325	Failure handling incoming CR; insufficient throughput available.
tl_conn.c	c326	Invalid CR TPDU received; connection refused.
tl_conn.c	c331	CR TPDU not found in the retained queue.
tl_conn.c	c332	Invalid TC state for a N-CONNECT confirmation.
tl_conn.c	c333	DR TPDU not found in the retained queue.
nsi.c	c341	Unknown NPH indication.
nsi.c	c342	tc-data structure queued twice on DTE priority queue.

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FUNCTION	CODE	COMMENT *(continued)*
nsi.c	c343	tc-data structure queued twice on DTE priority queue.
nsi.c	c344	Failure requesting NC for TC; no tsapinfo for TSAP addresses specified.
nsi.c	c345	Failure requesting NC for TC; invalid local nsap in tsapinfo.
nsi.c	c346	Failure to obtain NC; class 0 or 1 TC.
nsi.c	c347	Failure to obtain NC; no DTE found to degrade TC's service.
nsi.c	c348	Failure to obtain NC; no NCs available for multiplexing.
nsi.c	c349	Failure to obtain NC; could not change throughput on multiplexed NC.
nsi.c	c350	Failure to obtain NC on retry; no NCs and/or throughput.
nsi.c	c351	Failure to obtain NC on retry; invalid return.
nsi.c	c352	Failure to obtain NC; class 0 or 1 TC.
nsi.c	c353	Failure to obtain NC; no NCs available for multiplexing.
nsi.c	c354	Failure to obtain NC; could not change throughput on multiplexed NC.
nsi.c	c355	Failure to obtain NC; invalid QOS specified.
nsi.c	c356	Failure to obtain NC; DTE specified is unavailable.
nsi.c	c357	Failure to obtain NC; invalid return.
nsi.c	c358	Failure to obtain NC; no NCs and/or throughput for class 0 TC.
tl_data.c	c401	Invalid event for first TPDU received.
tl_data.c	c405	Error formatting CC TPDU; extended TSAPID requested, but not found.
tl_data.c	c406	Error formatting CC TPDU; user data specified for class 0 TC.
tl_data.c	c407	Error formatting CC TPDU; TS user data length exceeds maximum.
tl_data.c	c411	DR TPDU not found in the retained queue.
tl_data.c	c421	Unknown event for tl_dt_procedure.
tl_data.c	c422	Retained DT TPDU mismatches lower window.
tl_data.c	c431	DT TPDU not found in the retained queue.
tl_data.c	c432	DT TPDU not found in the retained queue.
tl_data.c	c433	CC TPDU not found in the retained queue.

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FUNCTION	CODE	COMMENT *(continued)*
tl_data.c	c434	DR TPDU not found in the retained queue.
tl_data.c	c435	NS provider error for transmission of a DT TPDU.
tl_disc.c	c441	Invalid TC state for a DR TPDU.
tl_disc.c	c442	DR TPDU RECEIVED; invalid SRC-REF.
tl_disc.c	c443	DR TPDU RECEIVED; class 0 TC, OPEN state.
tl_disc.c	c444	DR TPDU RECEIVED; WFCC state, peer refused connect request.
tl_disc.c	c445	DR TPDU RECEIVED; class 0 TC, WBCL state.
tl_disc.c	c446	Receipt of DC TPDU; class 0 TC, CLOSING state.
tl_disc.c	c447	Receipt of DC TPDU; protocol error, invalid state.
tl_disc.c	c451	Invalid TC state for a N-DISCONNECT indication.
tl_disc.c	c452	NDISind; class 0 or 2 TC, WFCC state.
tl_disc.c	c453	NDISind; class 0 o 2 TC, WFNC state.
tl_disc.c	c454	NDISind; TTR timeout, WFNC state.
tl_disc.c	c455	NDISind; TTR timeout, WBCL state.
tl_disc.c	c456	NDISind; WFTRESP or WBOC state, no TWR timer value.
tl_disc.c	c457	NDISind; class 0 or 2 TC, CLOSING or WBCL state.
tl_disc.c	c458	TDISreq; WFCC state.
tl_disc.c	c459	TDISreq; WFTRESP state.
tl_disc.c	c45a	TDISreq; WBOC state.
tl_interf.c	c461	Unknown incoming event.
tl_interf.c	c462	Unsupported class.
tl_interf.c	c463	AK or EA TPDU received; class 0 TC.
tl_interf.c	c464	RJ TPDU received; class 0 or 2 TC.
tl_interf.c	c465	Expedited Data Request; class 0 TC.
tl_interf.c	c471	Unknown TPDU type.
tl_interf.c	c481	Fatal TPH error for a reassignment.
tl_misc.c	c491	Changing TC state to an invalid state.
tl_misc.c	c4a1	TPDU not found in the retained queue.
tl_timers.c	c501	Unknown timer type.
tl_timer.c	c502	Failure to start timer.
tl_timers.c	c511	Unknown timer type.
tl_timers.c	c512	Failure to stop timer.
tl_timers.c	c541	Invalid state.
tl_timers.c	c551	Invalid state.
tl_timers.c	c561	Unknown timer type.
tl_reset.c	c581	Failure to format RJ TPDU.
tl_reset.c	c582	NRSTind; class 0 or 2 TC, OPEN state.

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FUNCTION	CODE	COMMENT *(continued)*
tl_reset.c	c583	NRSTind; OPEN state, TTR timer has previously expired.
tl_reset.c	c584	NRSTind; class 0 or 2 TC, WFCC state.
tl_reset.c	c585	NRSTind; WFCC state, TTR timer has previously expired.
tl_reset.c	c586	NRSTind; class 0 or 2 TC, WFTRESP state.
tl_reset.c	c587	NRSTind; class 0 TC, WBCL state.
tl_reset.c	c588	NRSTind; class 0 TC, CLOSING state.
tl_reset.c	c589	Protocol error for a TPDU received.
tsi.c	c591	No tsapinfo ECD record for specified TSAP.
tsi.c	c592	Failure to open ECD for tsapinfo records.
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update_tc_state()	cf00	Transport connection state invalid.
update_control_state()	cf01	Control state invalid.
update_output_state()	cf02	Output state invalid.
timeout_tc()	cf03	Transport connection timeout.
fatal_btih_error()	cf04	Fatal BT interface handler error.
inp_avail()	cf10	Received unexpected pdu type.
receive_complete()	cf10	Received unexpected pdu type.
connect_tc()	cf11	TSAP not found.
connect_tc()	cf12	Respond failed.
inp_avail()	cf13	T_recv failed.
write_to_tl()	cf20	T_send failed.
get_query_info()	cf21	P_iomap failed.
open_device()	cf30	T_attach failed.
pass_poll_request()	cf40	Sendevent failed.
pass_checkpt_ack()	cf40	Sendevent failed.
neg_clean_up()	cf40	Sendevent failed.
open_device()	cf40	Sendevent failed.
disconnect_tc()	cf40	Sendevent failed.
ptrpbt3()	cf50	G_iomap failed.
read_ecd_data()	cf60	Bad logdev record for control device.
read_ecd_data()	cf61	Bad logdev record for output device.
read_ecd_data()	cf62	Bad btihdev ecd record.
pmsgbt3()	cf70	No more available pdu blocks.
get_free_block()	cf70	No more available pdu blocks.

SP HANDLER

FUNCTION	CODE	COMMENT *(continued)*
s_i_ab_spdu_mi()	d010	Expected TDisconnect Indication.
s_req_buffer_md()	d101	Requested more than a segment of memory.
s_init_all_buffers_md()	d103	Handler initialization error.
s_init_s_con_data_md()	d104	Handler not initialized yet.
s_rel_con_data_md()	d105	NULL pointer for pointer to connection data structure.
s_rel_con_data_md()	d106	Connection data structure corrupted.
s_rel_con_data_md()	d107	Connection data structure already returned to map.
s_rel_con_data_md()	d108	Too many connection data structures returned.
s_reuse_con_data_md()	d109	Connection data structure pointer is NULL.
s_reuse_con_data_md()	d10a	Connection data structure corrupted.
s_reuse_con_data_md()	d10b	Expedited service selected.
s_reuse_con_data_md()	d10c	No reuse in effect.
s_reuse_con_data_md()	d10d	Duplicate entry in no reuse structure.
s_reuse_con_data_md()	d10e	Duplicate entry in reuse structure.
s_reuse_con_data_md()	d10f	Too many connections allocated.
s_find_ind_function_md()	d110	Session Protocol Handler not ready.
s_attach()	d111	Session Protocol Handler not ready.
s_detach()	d112	Session Protocol Handler not ready.
s_reuse_con_data_md()	d113	Illegal state of Session Protocol Machine.
s_attach()	d114	Invalid version.
s_o_t_req_connect_md()	d201	Call to t_connect() failed.
s_o_t_rsp_connect_md()	d202	Call to t_respond() failed.
s_o_t_disconnect_md()	d203	Call to t_disconnect() failed.
pinitsp3	d301	Attach to local TSAP failed.
pmsgsp3	d302	Invalid message type.
pmsgsp3	d303	Message had bad record id.
pmsgsp3	d304	lla_rdget call failed.
pmsgsp3	d305	Attach to local TSAP failed.
pmsgsp3	d306	Illegal ECD operation reported.
s_o_norm_spdu_send_md	d402	Failed attempt to send CN SPDU.
s_o_norm_spdu_send_md	d403	Illegal state to send SPDU.
s_o_norm_spdu_send_md	d404	Failed attempt to send SPDU.
s_o_norm_spdu_send_md	d405	Illegal state to send SPDU.
s_o_norm_spdu_send_md	d406	Failed attempt to send AA or AB SPDU.
s_o_norm_spdu_send_md	d407	Illegal state to send AA or AB SPDU.
s_o_norm_spdu_send_md	d408	Illegal SPDU type.
s_o_ssdu_send_md()	d409	Illegal use of segmenting.

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FUNCTION	CODE	COMMENT *(continued)*
s_o_ssdu_send_md()	d40a	Illegal state for sending unsegmented data.
s_o_ssdu_send_md()	d40b	Illegal ssdu_segment value.
s_o_ssdu_send_md()	d40c	Illegal ssdu_segment value.
s_o_ssdu_send_md()	d40d	Illegal state for sending segmented data.
s_o_ssdu_send_md()	d40e	tsdu size <= GTSEGDTHDR.
s_send_tsc_md()	d40f	Failed attempt to send AA or AB SPDU.
s_send_tsc_md()	d410	Session Protocol Machine in illegal state.
s_send_ack_md()	d411	Inconsistent number of t_acknowledges outstanding.
s_send_ack_md()	d412	Inconsistent number of t_acknowledges.
s_send_ack_md()	d413	Inconsistent number of t_acknowledges.
s_send_ack_md()	d414	Number of t_acknowledges > NUMSEGHEADS.
s_send_ack_md()	d415	Inconsistent number of t_acknowledges.
s_send_ack_md()	d416	Inconsistent number of t_acknowledges.
s_send_ack_md()	d417	Inconsistent number of t_acknowledges.
s_send_ack_md()	d418	Number of t_acknowledges > NUMSEGHEADS.
s_send_ack_md()	d419	Inconsistent number of t_acknowledges.
s_send_ack_md()	d41a	Inconsistent number of t_acknowledges.
s_send_ack_md()	d41b	Inconsistent number of acknowledges.
s_send_ack_md()	d41c	Inconsistent number of acknowledges.
s_send_ack_md()	d41d	Inconsistent number of acknowledges.
s_send_ack_md()	d41e	Session Protocol Machine in illegal state.
s_unseg_send_md()	d41f	Transport send failed.
s_unseg_send_md()	d420	Transport send failed.
s_seg_send_md()	d421	Data transmission error - not enough user data.
s_seg_send_md()	d422	Data transmission error - not enough user data.
s_seg_send_md()	d423	Data transmission error.
s_seg_send_md()	d424	Data transmission error.
s_o_exp_spdu_send_md()	d425	Expedited data transmission error at transport layer.
s_o_exp_spdu_send_md()	d426	Expedited data transmission error at session layer.
s_o_ssdu_send_md()	d427	Length of user data <= 0.
s_o_ssdu_send_md()	d428	SS-user tried to send after S_PARTIAL response.
s_o_ssdu_send_md()	d429	SS-user tried to send after S_PARTIAL response.
s_send_ack_md()	d42a	Bad state for orderly release.
s_send_ack_md()	d42b	Unexpected acknowledgement.
s_unseg_send_md()	d42e	Invalid T_ACKNOWLEDGE indication.
s_send_ack_md()	d42f	Bad disconnect state for orderly abort.
s_send_suc_md()	d430	Bad disconnect state for orderly abort.
s_send_suc_md()	d431	Bad disconnect state for orderly abort.

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FUNCTION	CODE	COMMENT *(continued)*
s_o_exp_spdu_md()	d432	Cannot send EX SPDU.
s_send_suc_md()	d43a	Invalid state for an orderly release.
s_send_suc_md()	d43b	Invalid return code value from t_send.
s_send_suc_md()	d43c	Invalid send machine state.
s_i_spdu_rec_md()	d501	Failed while reading SPDU header.
s_i_spdu_rec_md()	d502	Failed while reading concatenated SPDU header.
s_i_spdu_rec_md()	d503	Extended concatenation not supported.
s_i_spdu_rec_md()	d504	Invalid return from s_i_process_spdu_md().
s_i_spdu_rec_md()	d505	Invalid return from s_i_process_spdu_md().
s_i_spdu_rec_md()	d506	Wrong state to receive a new SPDU.
s_i_decode_length()	d507	SPDU header too long for input buffer.
s_i_decode_length()	d508	Length of SPDU header wrong.
s_i_decode_length()	d509	Length of SPDU header wrong.
s_i_decode_length()	d50a	Unrecognized return code from t_receive().
s_i_PI_buf_get_md()	d50b	Failure to get PG length in SPDU header.
s_i_PI_buf_get_md()	d50c	Failure to get PG data in SPDU header.
s_i_header_get_md()	d50d	SPDU header too long for input buffer.
s_i_header_get_md()	d50e	Wrong number of bytes returned from t_receive().
s_i_header_get_md()	d50f	Unrecognized return code from t_receive().
s_i_header_get_md()	d510	Invalid length of Parameter Group data.
s_i_header_get_md()	d511	User data indicated, but reached end of SPDU.
s_i_header_get_md()	d512	Invalid SPDU header length.
s_i_header_get_md()	d513	Too many bytes in SPDU header.
s_i_header_get_md()	d514	End of SPDU header, wrong length.
s_i_data_get_md()	d515	SPDU header too long for input buffer.
s_i_data_get_md()	d516	Number of bytes in SPDU header greater than indicated.
s_i_data_get_md()	d517	Wrong number of bytes returned from t_receive().
s_i_data_get_md()	d518	End of SPDU header, wrong length.
s_i_data_get_md()	d519	Invalid return code from t_receive().
s_i_type_spdu_decode_md()	d51a	Illegal concatenation.
s_i_type_spdu_decode_md()	d51b	Illegal SPDU type.
s_i_length_PG_md()	d51c	SPDU header too long for input buffer.
s_i_length_PG_md()	d51d	Wrong number of bytes returned from t_receive().
s_i_length_PG_md()	d51e	While reading LONG SPDU header got return code of T_NEW_TSDU.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_length_PG_md()	d51f	While reading LONG SPDU header got return code of T_READ_END.
s_i_length_PG_md()	d520	While reading LONG SPDU header got invalid return code.
s_i_length_PG_md()	d521	SPDU header too long for input buffer; SPDU type is CN, AC, or RF.
s_i_length_PG_md()	d522	SPDU header too long for input buffer; SPDU type is GT, OUR_DT, PT, FN, DN, AA, or AB.
s_i_length_PG_md()	d523	Unknown SPDU type header.
s_i_trc_md()	d524	Wrong byte count from t_receive_complete().
s_i_trc_md()	d525	Illegal type of SPDU received.
s_i_trc_md()	d526	Illegal length of SPDU header.
s_i_trc_md()	d527	Failed to process concatenated SPDU.
s_i_trc_md()	d528	Illegal concatenation.
s_i_trc_md()	d529	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d52a	Illegal concatenation.
s_i_trc_md()	d52b	Failed to read in SPDU header.
s_i_trc_md()	d52c	Failed to read in concatenated SPDU header.
s_i_trc_md()	d52d	Illegal concatenation.
s_i_trc_md()	d52e	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d52f	Invalid return from s_i_PI_buf_get_md().
s_i_trc_md()	d530	Illegal SPDU type.
s_i_trc_md()	d531	Invalid return code from t_receive_complete().
s_i_trc_md()	d532	Wrong byte count from t_receive_complete().
s_i_trc_md()	d533	Failed while reading SPDU header.
s_i_trc_md()	d534	Illegal concatenation.
s_i_trc_md()	d535	Failed while reading concatenated SPDU.
s_i_trc_md()	d536	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d537	Invalid return from s_i_PI_buf_get().
s_i_trc_md()	d538	LONG SPDU header;t_receive returned T_NEW_TSDU.
s_i_trc_md()	d539	LONG SPDU header;t_receive returned T_READ_END.
s_i_trc_md()	d53a	Invalid return from t_receive_complete().
s_i_trc_md()	d53b	Wrong byte count from t_receive_complete().
s_i_trc_md()	d53c	Invalid length of SPDU header.
s_i_trc_md()	d53d	Have USER DATA;SPDU header length wrong.

FUNCTION	CODE	COMMENT *(continued)*
s_i_trc_md()	d53e	Illegal concatenation.
s_i_trc_md()	d53f	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d540	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d541	Failed while reading SPDU header.
s_i_trc_md()	d542	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d543	Illegal concatenation.
s_i_trc_md()	d544	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d545	Invalid return from s_i_PI_buf_get_md().
s_i_trc_md()	d546	USERDATA indicated, none present.
s_i_trc_md()	d547	USERDATA indicated, none present.
s_i_trc_md()	d548	Parameter Group length != 0; wrong.
s_i_trc_md()	d549	Wrong Parameter Group length.
s_i_trc_md()	d54a	Invalid return from t_receive_complete().
s_i_trc_md()	d54b	Illegal concatenation.
s_i_trc_md()	d54c	Failed while reading head of concatenated SPDU.
s_i_trc_md()	d54d	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d54e	Failed while reading Parameter Groups of SPDU header.
s_i_trc_md()	d54f	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d550	Illegal concatenation.
s_i_trc_md()	d551	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d552	Invalid return from s_i_PI_buf_get_md().
s_i_trc_md()	d553	Incorrect byte count in SPDU header.
s_i_trc_md()	d554	Invalid return from t_receive_complete().
s_i_trc_md()	d555	Bad byte count from t_receive_complete().
s_i_trc_md()	d556	USER DATA; bad byte count in SPDU header.
s_i_trc_md()	d557	Illegal concatenation.
s_i_trc_md()	d558	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d559	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d55a	Failed while reading Parameter Groups of SPDU header.
s_i_trc_md()	d55b	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d55c	Illegal concatenation.
s_i_trc_md()	d55d	Invalid return from s_i_process_spdu_md().

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FUNCTION	CODE	COMMENT *(continued)*
s_i_trc_md()	d55e	Failed while reading Parameter Groups of SPDU header.
s_i_trc_md()	d55f	LONG SPDU header; t_receive returned T_NEW_TSDU.
s_i_trc_md()	d560	LONG SPDU header; t_receive returned T_READ_END.
s_i_trc_md()	d561	Invalid return from t_receive_complete().
s_i_trc_md()	d562	Invalid return from t_receive_complete().
s_i_trc_md()	d563	Invalid return from t_receive_complete().
s_i_trc_md()	d564	Illegal receive state.
s_i_size_check_md()	d565	SPDU header too long for input buffer; SPDU type is CN, AC, or RF.
s_i_size_check_md()	d566	SPDU header too long for input buffer; SPDU type is OUR_DT, PT, FN, DN, AA, or AB.
s_i_size_check_md()	d567	SPDU header too long for input buffer; SPDU type is GT.
s_i_size_check_md()	d568	Unknown SPDU type header.
s_i_last_norm_data_md()	d569	Invalid return code from t_receive().
s_i_last_norm_data_md()	d56a	Illegal state - receive data.
s_i_more_norm_data_md()	d56b	Invalid return code from t_receive().
s_i_more_norm_data_md()	d56c	Illegal state - receive data.
s_i_rec_norm_data_md()	d56d	Invalid return code from t_receive().
s_i_rec_norm_data_md()	d56e	Invalid return code from t_receive().
s_i_rec_norm_data_md()	d56f	Illegal state - receive data.
s_i_process_spdu_md()	d570	Bad byte count from t_receive().
s_i_process_spdu_md()	d571	Unknown SPDU type.
s_i_process_spdu_md()	d572	Unknown SPDU type.
s_i_process_spdu_md()	d573	Illegal length of AB SPDU.
s_i_process_spdu_md()	d574	Illegal SPDU header length.
s_i_process_spdu_md()	d575	Failed while reading Parameter Groups of SPDU header.
s_i_process_spdu_md()	d576	Illegal concatenation.
s_i_process_spdu_md()	d577	Invalid return from s_i_PI_buf_get_md().
s_i_process_spdu_md()	d578	Illegal state - receive SPDU header.
s_i_concat_check_md()	d579	Illegal concatenation with a GT SPDU.
s_i_concat_check_md()	d57a	Illegal concatenation.
s_i_trc_md()	d57b	Illegal length of AB SPDU.
s_i_trc_md()	d57c	Invalid return code from t_receive().
s_i_trc_md()	d57d	Bad byte count while reading AB SPDU.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_trc_md()	d57e	Invalid return from t_receive_complete() while reading AB SPDU.
s_i_process_spdu_md()	d57f	Invalid return code while reading AB SPDU.
s_i_process_spdu_md()	d580	Bad byte count from t_receive().
s_i_trc_md()	d581	Bad state for orderly release.
s_i_rec_norm_data_md()	d582	Bad state for orderly release.
s_i_concat_check_md()	d583	Improper concatenation - RS SPDU must be concatenated with meaningless GT SPDU.
s_i_concat_check_md()	d584	Improper concatenation - RA SPDU must be concatenated with a PT SPDU.
s_i_trc_md()	d585	Failure to discard remainder of SPDU.
s_i_trc_md()	d586	Invalid return code from t_receive() when in the discard receive state.
s_i_type_spdu_decode_md()	d587	RS/RA SPDU must be concatenated with GT/PT SPDU.
s_i_trc_md()	d588	Bad state for orderly release.
s_i_ac_spdu_mi()	d601	Session Protocol Machine in (illegal) state STA01C.
s_i_ac_spdu_mi()	d602	Parsing of SPDU failed.
s_i_ac_spdu_mi()	d603	No transport connection exists.
s_i_ac_spdu_mi()	d604	Expected t_connect_confirm.
s_i_ac_spdu_mi()	d605	Invalid Session Protocol Machine state.
s_ac_parse_mi()	d606	Invalid token setting in AC SPDU.
s_ac_parse_mi()	d607	Invalid parameter group in AC SPDU.
s_ac_parse_mi()	d608	Parsing of AC SPDU failed.
s_ac_parse_mi()	d609	AC SPDU functional units specified incorrectly.
s_cn_spdu_mi()	d60a	Expected Abort Accept or Transport Disconnect Indication.
s_cn_spdu_mi()	d60b	Receiving side not transport acceptor.
s_cn_spdu_mi()	d60c	Expected t_connect_confirm.
s_cn_spdu_mi()	d60d	No transport connection exists.
s_cn_spdu_mi()	d60e	Invalid Session Protocol Machine state.
s_cn_parse_mi()	d60f	Invalid token setting in CN SPDU.
s_cn_parse_mi()	d610	Invalid duplex/half duplex choice in CN SPDU.
s_cn_parse_mi()	d611	SSAP length exceeds S_MAX_SSAP_ID_LEN.
s_cn_parse_mi()	d612	Invalid parameter group in CN SPDU.
s_cn_parse_mi()	d613	Parsing of CN SPDU failed.
s_i_rf_spdu_mi()	d614	Session Protocol Machine in illegal state (STA01C).
s_i_rf_spdu_mi()	d615	Session Protocol Machine in illegal state (STA01).
s_i_rf_spdu_mi()	d616	Expected t_connect_confirm.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_rf_spdu_mi()	d617	Session Protocol Machine in invalid state.
s_rf_parse_mi()	d618	duplex / half duplex option not specified in RF SPDU.
s_rf_parse_mi()	d619	Invalid Parameter Group in RF SPDU.
s_rf_parse_mi()	d61a	Parsing of RF SPDU failed.
s_i_c_req_mi()	d61b	User data length exceeds S_U_512_LEN.
s_i_c_req_mi()	d61c	Failed attempt to construct CN SPDU.
s_i_c_req_mi()	d61d	Failed attempt to get a transport connection.
s_i_c_req_mi()	d61e	User data length exceeds S_U_512_LEN.
s_i_c_req_mi()	d61f	Failed attempt to send CN SPDU.
s_i_c_req_mi()	d620	Failed attempt to construct CN SPDU.
s_i_c_req_mi()	d621	Sender not transport connection initiator.
s_i_c_req_mi()	d622	Session Protocol Machine in invalid state to receive connection request.
build_cn_spdu_mi()	d623	Failed attempt to add the connection id parameter field to CN spdu.
build_cn_spdu_mi()	d624	Invalid token setting in building CN SPDU.
build_cn_spdu_mi()	d625	Invalid duplex / half duplex choice.
build_cn_spdu_mi()	d626	Failed attempt to add the session user requirements field to CN spdu.
build_cn_spdu_mi()	d627	Calling ssap identifier length > S_MAX_SSAP_ID_LEN.
build_cn_spdu_mi()	d628	Called ssap identifier length > S_MAX_SSAP_ID_LEN.
add_conn_id_mi()	d629	User reference parameter length > S_REF_MAX_LEN.
add_conn_id_mi()	d62a	Common reference length parameter > S_REF_MAX_LEN.
add_conn_id_mi()	d62b	Additional reference length parameter > S_REF_MAX_LEN.
add_cn_rf_sess_req_mi()	d62c	Invalid duplex / half duplex setting.
add_cn_rf_sess_req_mi()	d62d	Invalid expedited data setting.
add_cn_rf_sess_req_mi()	d62e	Invalid CCITT subset selected.
add_ac_sess_req_mi()	d62f	Invalid duplex / half duplex setting.
add_ac_sess_req_mi()	d630	Invalid expedited data setting.
add_ac_sess_req_mi()	d631	Invalid CCITT subset selected.
s_i_cacc_rsp_connect_mi()	d632	Expected TConnect Confirm.
s_i_cacc_rsp_connect_mi()	d633	User Data length > S_U_512_LEN.
s_i_cacc_rsp_connect_mi()	d634	Failed attempt to construct AC SPDU.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_cacc_rsp_connect_mi()	d635	Failed attempt to send AC SPDU.
s_i_cacc_rsp_connect_mi()	d636	Session Protocol Machine in invalid state.
build_ac_spdu_mi()	d637	Failed attempt to add connection identifier parameter group to AC SPDU.
build_ac_spdu_mi()	d638	Invalid token setting.
build_ac_spdu_mi()	d639	Attempt to set data token in duplex mode.
build_ac_spdu_mi()	d63a	Invalid token holder setting.
build_ac_spdu_mi()	d63b	Failed to add session user requirements parameter items to an AC SPDU.
build_ac_spdu_mi()	d63c	Called ssap length > S_MAX_SSAP_ID_LEN.
s_i_crej_rsp_connect_mi()	d63d	Expected TConnect Confirm.
s_i_crej_rsp_connect_mi()	d63e	User Data length > S_U_512_LEN.
s_i_crej_rsp_connect_mi()	d63f	Failed attempt to construct RF SPDU with reuse set.
s_i_crej_rsp_connect_mi()	d640	Failed attempt to send RF SPDU with reuse set.
s_i_crej_rsp_connect_mi()	d641	Failed attempt to construct RF SPDU with no reuse set.
s_i_crej_rsp_connect_mi()	d642	Failed attempt to send RF SPDU with no reuse set.
s_i_crej_rsp_connect_mi()	d643	Session Protocol Machine in invalid state.
build_rf_spdu_mi()	d644	Invalid reason code with User Data.
build_rf_spdu_mi()	d645	Failed attempt to add connection id parameter group field to RF SPDU.
build_rf_spdu_mi()	d646	Invalid reason code with session user requirements.
build_rf_spdu_mi()	d647	Failed attempt to add session user requirements field to RF SPDU.
build_rf_spdu_mi()	d648	Illegal reason code.
s_i_t_con_connect_mi()	d649	Failed attempt to send CN SPDU.
s_i_t_con_connect_mi()	d64a	Expected T_Disconnect or Abort Accept indication.
s_i_t_con_connect_mi()	d64b	No transport connection.
s_i_t_con_connect_mi()	d64c	Illegal state for Transport Connection Confirm.
s_i_tc_ind_mi()	d64d	Failed attempt to send T_CONNECT_RESPONSE.
s_i_tc_ind_mi()	d64e	Transport connection already established.
s_i_tc_ind_mi()	d64f	Expected Abort Accept or T_Disconnect Indication.
s_i_tc_ind_mi()	d650	Illegal or invalid state to receive Transport Connection Indication.
build_ac_spdu_mi()	d651	Invalid token holder setting.

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FUNCTION	CODE	COMMENT *(continued)*
build_ac_spdu_mi()	d652	Calling ssap identifier length > S_MAX_SSAP_ID_LEN.
s_i_c_req_mi()	d653	Could not get buffer to build CN SPDU.
s_ac_parse_mi()	d654	Too much user data on version 1 AC SPDU.
s_ac_parse_mi()	d655	Enclosure item not supported on AC SPDU.
s_ac_parse_mi()	d656	AC SPDU does not contain proposed version.
s_ac_parse_mi()	d657	AC SPDU does not contain one of the proposed data mode types (duplex or half duplex).
s_ac_parse_mi()	d658	Initial sync point serial number is missing.
s_i_cn_spdu_mi()	d659	Proposed version is not supported on this SSAP.
s_i_cn_spdu_mi()	d65a	Could not find indication function due to unrecognized SSAP.
s_cn_parse_mi()	d65b	User data too large for version 1 connect SPDU.
s_cn_parse_mi()	d65c	Extended user data not valid in version 1.
s_cn_parse_mi()	d65d	Overflow parameter not supported.
s_refuse_cn_mi()	d65e	Could not get buffer for sending RF SPDU.
s_refuse_cn_mi()	d65f	Failed to build RF SPDU.
s_refuse_cn_mi()	d660	Failed to send RF SPDU.
s_rf_parse_mi()	d661	Too much user information on version 1 RF SPDU.
s_rf_parse_mi()	d662	Enclosure parameter not supported on refuse SPDU.
s_i_c_req_mi()	d663	Invalid initial sync point serial number.
s_i_c_req_mi()	d664	Initial sync point serial number must not be set if resync functional unit not proposed.
s_i_c_req_mi()	d665	Invalid initial sync point serial number.
s_i_c_req_mi()	d666	Initial sync point serial number must not be set if resync functional unit not proposed.
add_cn_rf_sess_req_mi()	d667	Invalid resync functional unit setting.
add_ac_sess_req_mi()	d668	Invalid resync functional unit setting.
s_i_cacc_rsp_connect_mi()	d669	Invalid initial sync point serial number.
s_i_cacc_rsp_connect_mi()	d66a	Serial number must be S_NO_SERNUM if resync functional unit not proposed.
build_ac_spdu_mi()	d66b	Maximum SPDU length exceeded on AC.
build_ac_spdu_mi()	d66c	AC SPDU exceeds negotiated max TSDU size.
build_rf_spdu_mi()	d66d	Maximum SPDU length exceeded on RF SPDU.
build_rf_spdu_mi()	d66e	RF SPDU exceeds negotiated max TSDU size.
s_i_ac_spdu_mi()	d66f	Failure to discard AC SPDU.
s_ac_parse_mi()	d670	SSAP length exceeds S_MAX_SSAP_ID_LEN.

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FUNCTION	CODE	COMMENT *(continued)*
s_ac_parse_mi()	d671	Token setting item missing in conditions when it is required.
s_req_connect()	d701	Indication function not specified.
s_req_connect()	d702	No connection data structure available.
s_req_connect()	d703	Session connection set up failed.
s_acc_con_res()	d704	Error processing Session Accept Request.
s_rej_con_res()	d705	Error processing Session Connect Reject.
s_send_normal()	d706	Error processing Send Normal Data Request.
s_receive()	d707	Error processing Receive Request.
s_send_exp()	d708	Error processing Send Expedited Data Request.
s_give_tokens()	d709	Error processing Give Tokens Request.
s_please_tokens()	d70a	Error processing Please Tokens Request.
s_req_rel()	d70b	Error processing Release Request.
s_resp_rel()	d70c	Error processing Release Response Request.
s_u_abort()	d70d	Error processing User Abort Request.
s_acc_con_res()	d70e	Illegal connection data structure pointer.
s_rej_con_res()	d70f	Illegal connection data structure pointer.
s_send_normal()	d710	Illegal connection data structure pointer.
s_receive()	d711	Illegal connection data structure pointer.
s_send_exp()	d712	Illegal connection data structure pointer.
s_give_tokens()	d713	Illegal connection data structure pointer.
s_please_tokens()	d714	Illegal connection data structure pointer.
s_req_rel()	d715	Illegal connection data structure pointer.
s_rel_resp()	d716	Illegal connection data structure pointer.
s_u_abort()	d717	Illegal connection data structure pointer.
s_set_uinfo()	d718	Invalid pointer to connection data structure.
s_rs_req()	d719	Invalid resync type requested - only abandon is supported.
s_rs_req()	d71a	Illegal connection data structure pointer.
s_rs_req()	d71b	Error processing resync request.
s_rs_rsp()	d71c	Illegal connection data structure pointer.
s_rs_rsp()	d71d	Error processing resync response.
s_set_timer_md()	d801	Abort timer already active on this connection.
s_gt_timer_md()	d802	Give tokens timer already active on this connection.
s_tnewtsdu_timer_md()	d803	tnewtsdu timer already active on this connection.
s_stop_timer_md()	d804	Abort timer not active on this connection.
s_timer_exp_md()	d805	Unknown timer type.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_fn_spdu_mi()	d901	Illegal state (STA01C) to receive FN SPDU.
s_i_fn_spdu_mi()	d902	Illegal reuse after SPDU collision.
s_i_fn_spdu_mi()	d903	Illegal reuse during data transfer.
s_i_fn_spdu_mi()	d904	Illegal state to receive FN SPDU.
s_fn_parse_mi()	d905	User Data > S_U_512_LEN.
s_fn_parse_mi()	d906	Illegal Parameter Identifier.
s_fn_parse_mi()	d907	FN SPDU parsing failed.
s_i_dn_spdu_mi()	d908	Illegal state (STA01C) to receive DN SPDU.
s_i_dn_spdu_mi()	d909	DN SPDU parsing failed.
s_i_dn_spdu_mi()	d90a	DN SPDU parsing error or S_P69_MI failed.
s_i_dn_spdu_mi()	d90b	Illegal state to receive DN SPDU.
s_dn_parse_mi()	d90c	User Data > S_U_512_LEN.
s_dn_parse_mi()	d90d	Illegal Parameter Identifier.
s_dn_parse_mi()	d90e	DN SPDU parsing failed.
s_i_ab_spdu_mi()	d90f	AB SPDU parsing failed.
s_i_ab_spdu_mi()	d911	Failed attempt to send Abort Accept SPDU.
s_i_ab_spdu_mi()	d912	Failed attempt to send Abort Accept SPDU.
s_i_ab_spdu_mi()	d913	Illegal/invalid state to receive AB SPDU.
s_ab_parse_mi()	d914	Missing transport disconnect parameter.
s_ab_parse_mi()	d915	Illegal parameter group or length.
s_ab_parse_mi()	d916	Illegal User Data in AB SPDU.
s_ab_parse_mi()	d917	REFLCT parameter not allowed.
s_ab_parse_mi()	d918	Illegal Parameter Identifier.
s_ab_parse_mi()	d919	AB SPDU parsing failed.
s_i_aa_spdu_mi()	d91a	Illegal state (STA01C) to receive AA SPDU.
s_i_aa_spdu_mi()	d91b	Expected TDisconnect Indication.
s_i_aa_spdu_mi()	d91c	Illegal state to receive AA SPDU.
s_i_req_mi()	d91d	Expected Abort Accept, got Release Request.
s_i_req_mi()	d91e	User Data Length > S_U_512_LEN.
s_i_req_mi()	d91f	Failed attempt to send FN, no reuse, SPDU.
s_i_req_mi()	d920	Data token not available.
s_i_req_mi()	d921	User Data Length > S_U_512_LEN.
s_i_req_mi()	d922	Failed attempt to send FN SPDU, no reuse.
s_i_req_mi()	d923	Failed attempt to send FN SPDU, with reuse.
s_i_req_mi()	d924	Data token error.
s_i_req_mi()	d925	Illegal state to receive Release Request.
s_i_racc_rsp_release_mi()	d926	Expected Abort Accept, got Release Accept Request.
s_i_racc_rsp_release_mi()	d927	Illegal value for finish request response.

FUNCTION	CODE	COMMENT *(continued)*
s_i_racc_rsp_release_mi()	d928	User Data Length > S_U_512_LEN.
s_i_racc_rsp_release_mi()	d929	Failed attempt to send DN SPDU.
s_i_racc_rsp_release_mi()	d92a	Failed attempt to send DN SPDU.
s_i_racc_rsp_release_mi()	d92b	Failed attempt to send DN SPDU.
s_i_racc_rsp_release_mi()	d92c	Illegal state to receive Release Accept Request.
s_i_racc_rsp_release_mi()	d92d	Null connection data structure pointer.
s_i_racc_rsp_release_mi()	d92e	Null connection data structure pointer.
s_i_u_abort_mi()	d92f	User Data Length > S_U_512_LEN.
s_i_td_ind_mi()	d933	Illegal state to receive TDisconnect Indication.
s_i_timer_exp_mi()	d934	Illegal state for abort timer to expire.
s_i_u_abort_mi()	d935	Illegal state.
s_i_r_req_mi()	d936	Failed to get buffer for FN SPDU.
s_i_r_req_mi()	d937	Failed to get buffer for FN SPDU.
s_i_r_req_mi()	d938	Failed to get buffer for FN SPDU.
s_i_fn_spdu_mi()	d939	Parse of FN SPDU failed due to implementation restriction.
s_fn_parse_mi()	d93a	Enclosure item not supported on FN SPDU.
s_i_dn_spdu_mi()	d93b	Parse of DN SPDU failed due to implementation restriction.
s_dn_parse_mi()	d93c	Enclosure item not supported on DN SPDU.
s_ab_parse_mi()	d93d	Enclosure item not supported on AB SPDU.
s_i_r_req_mi()	d93e	Could not build FN SPDU (no reuse) due to too much user data.
s_i_r_req_mi()	d93f	Could not build FN SPDU (no reuse) due to too much user data.
s_i_r_req_mi()	d940	Could not build FN SPDU (reuse) due to too much user data.
s_i_racc_rsp_release_mi()	d941	Could not build DN SPDU due to too much user data.
s_i_racc_rsp_release_mi()	d942	Could not build DN SPDU due to too much user data.
s_i_racc_rsp_release_mi()	d943	Could not build DN SPDU due to too much user data.
s_i_u_abort_mi()	d944	Could not build AB SPDU due to too much user data.
s_i_fn_spdu_mi()	d945	Failed to discard FN SPDU.
s_i_fn_spdu_mi()	d946	Parse of FN SPDU failed due to implementation restriction.
s_i_fn_spdu_mi()	d947	Failure to discard FN SPDU.
s_i_fn_spdu_mi()	d948	Failure to discard FN SPDU.

FUNCTION	CODE	COMMENT *(continued)*
s_i_fn_spdu_mi()	d949	Parse of FN SPDU failed due to implementation restriction.
s_i_fn_spdu_mi()	d94a	Parse of FN SPDU failed due to protocol error.
s_i_aa_spdu_mi()	d94b	Illegal state (STA01 or STA01B) to receive AA SPDU.
s_i_u_abort_mi()	d94c	Copy of abort user data from edma structure failed.
s_i_u_abort_mi()	d94d	Copy of abort user data from edma structure failed.
s_i_t_ind_md()	da01	Transport connection disconnected due to congestion.
s_i_t_ind_md()	da02	New connection data structure not allocated.
s_i_t_ind_md()	da03	No user indication function.
s_i_result_parse_md()	da04	Illegal value from indication function.
s_i_t_ind_md()	da05	Illegal connection data structure pointer.
s_i_result_parse_md()	da06	Null indication function.
s_i_result_parse_md()	da07	Null indication function.
s_i_result_parse_md()	da08	Null indication function.
s_i_result_parse_md()	da09	Null indication function.
s_i_result_parse_md()	da0a	Null indication function.
s_i_result_parse_md()	da0b	Null indication function.
s_i_result_parse_md()	da0c	Null indication function.
s_i_result_parse_md()	da0d	Null indication function.
s_i_t_ind_md()	da0e	Illegal state or return code combination for transport receive complete indication.
s_i_t_ind_md()	da0f	Illegal state or return code combination for transport receive complete indication.
s_i_result_parse_md()	da10	Null indication function.
s_i_result_parse_md()	da11	Null indication function.
s_i_result_parse_md()	da12	Invalid return code from processing a PT SPDU.
s_i_result_parse_md()	da13	Null indication function.
s_i_result_parse_md()	da14	Invalid return code from processing a PT SPDU.
s_i_result_parse_md()	da15	Null indication function.
s_i_result_parse_md()	da16	Null indication function.
s_i_result_parse_md()	da17	Null indication function.
s_parse_pi_pgi_mi()	db01	Reference Parameter length > S_REF_MAX_LEN.
s_parse_pi_pgi_mi()	db02	Additional Reference Parameter length > S_ADDREF_MAX_LEN.
s_parse_pi_pgi_mi()	db03	Reflect Parameter length > S_RFLCT_MAX_LEN.
s_parse_pi_pgi_mi()	db04	Called or Calling SSAP length > S_MAX_SSAP_ID_LEN.

FUNCTION	CODE	COMMENT *(continued)*
s_parse_pi_pgi_mi()	db05	Protocol Options Parameter length != S_LEN_PROOPT.
s_parse_pi_pgi_mi()	db06	Invalid value for TSDU maximum size.
s_parse_pi_pgi_mi()	db07	Invalid value for Session User Reqmts Parameter.
s_parse_pi_pgi_mi()	db08	Incorrect length for token setting parameters.
s_parse_pi_pgi_mi()	db09	Incorrect length for token item parameter.
s_parse_pi_pgi_mi()	db0a	Incorrect length for transport disconnect parameter.
s_parse_pi_pgi_mi()	db0b	Zero length Reason Code Parameter.
s_parse_pi_pgi_mi()	db0c	Invalid Parameter Identifier.
s_parse_pi_pgi_mi()	db0d	Incorrect length of enclosure item parameter.
s_exq_put()	db0e	Incorrect length of expedited data SPDU.
s_exq_put()	db0f	Expedited data queue is full.
s_parse_pi_pgi_mi()	db10	User Data > S_U_512_LEN.
s_parse_pi_pgi_mi()	db11	Invalid length of extended user data field.
s_parse_pi_pgi_mi()	db12	Invalid length of version parameter field.
s_parse_pi_pgi_mi()	db13	Invalid length of serial number parameter field.
s_parse_pi_pgi_mi()	db14	Invalid character in serial number parameter field.
s_parse_pi_pgi_mi()	db15	Reason code must be one byte for any reason other than S_RUINFO.
s_parse_pi_pgi_mi()	db16	Invalid length of prepare type parameter field.
s_parse_pi_pgi_mi()	db17	Invalid prepare type.
s_parse_pi_pgi_mi()	db18	Invalid length of resync type parameter field.
s_parse_pi_pgi_mi()	db19	Invalid resync type.
s_chk_u_data()	db1a	Parse failed while looking for user data.
s_cleanup()	db1b	Discard failed while cleaning up after refuse.
s_cleanup()	db1c	Invalid receive machine state for cleaning up after refuse.
s_cleanup()	db1d	Discard failed while cleaning up after abort.
s_cleanup()	db1e	Invalid receive machine state for cleaning up after abort.
s_cleanup()	db1f	The action causing cleanup is invalid.
s_i_nrm_data_mi()	dc01	Session Protocol Machine in illegal state to send data.
s_i_dt_data_mi()	dc02	Session Protocol Machine in illegal state to receive data.
s_i_exp_data_mi()	dc03	Session Protocol Machine in illegal state to send expedited data.
s_i_ex_data_mi()	dc04	Session Protocol Machine in illegal state to receive expedited data.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_give_token_mi()	dc05	Session Protocol Machine in illegal state to send Give Tokens SPDU.
s_i_gt_spdu_mi()	dc06	Session Protocol Machine in illegal state to receive Give Tokens SPDU.
s_i_please_token_mi()	dc07	Session Protocol Machine in illegal state to send Please Tokens SPDU.
s_i_pt_spdu_mi()	dc08	Session Protocol Machine in illegal state to receive Please Tokens SPDU.
s_i_please_token_mi()	dc09	Previous Action not complete.
s_i_dt_spdu_mi()	dc0a	Error detected after receiving DT SPDU while in discard state.
s_i_dt_spdu_mi()	dc0b	Error in discarding DT SPDU when waiting after PR-AB.
s_i_give_token_mi()	dc0c	No user data allowed on version 1 GT SPDU.
s_i_give_token_mi()	dc0d	Could not get buffer to send GT SPDU.
s_i_give_token_mi()	dc0e	Maximum SPDU size exceeded on GT SPDU.
s_i_gt_spdu_mi()	dc0f	Error while discarding GT SPDU.
s_i_gt_spdu_mi()	dc10	Error while discarding GT SPDU.
s_gt_parse_mi()	dc11	Missing token item parameter on GT SPDU.
s_gt_parse_mi()	dc12	GT SPDU received when either data token not in use or token already available.
s_gt_parse_mi()	dc13	Parse of GT SPDU failed.
s_gt_parse_mi()	dc14	User data not allowed on version 1 GT SPDU.
s_gt_parse_mi()	dc15	Enclosure item not supported on GT SPDU.
s_gt_parse_mi()	dc16	Invalid parameter on GT SPDU.
s_gt_parse_mi()	dc17	Parse of GT SPDU failed.
s_i_please_token_mi()	dc18	Maximum SPDU size exceeded on PT SPDU.
s_i_pt_spdu_mi()	dc19	Error while discarding PT SPDU.
s_i_gt_spdu_mi()	dc1a	Error while discarding PT SPDU.
s_pt_parse_mi()	dc1b	Missing parameter on PT SPDU.
s_pt_parse_mi()	dc1c	PT SPDU received when data token not in use.
s_pt_parse_mi()	dc1d	Parse of PT SPDU failed.
s_pt_parse_mi()	dc1e	User data exceeds maximum allowable size for version 1 PT SPDU.
s_pt_parse_mi()	dc1f	Enclosure item not supported on PT SPDU.
s_pt_parse_mi()	dc20	Invalid parameter on PT SPDU.
s_pt_parse_mi()	dc21	Parse of PT SPDU failed.
s_i_pr_spdu_mi()	dd01	Invalid state for receiving PR-RS.
s_i_pr_spdu_mi()	dd02	Invalid state for receiving PR-RS.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_pr_spdu_mi()	dd03	Invalid state for receiving PR-RS.
s_i_pr_spdu_mi()	dd04	Invalid state for receiving PR-RA.
s_i_pr_spdu_mi()	dd05	Invalid state for receiving PR-RA.
s_i_pr_spdu_mi()	dd06	PR-AB invalid for version 1 protocol.
s_i_pr_spdu_mi()	dd07	Invalid state for receiving PR-AB.
s_i_pr_spdu_mi()	dd08	Invalid prepare type.
s_i_pr_spdu_mi()	dd09	Parse of PR SPDU failed.
s_i_pr_spdu_mi()	dd0a	Invalid PR SPDU - wrong size.
s_i_rs_qst_mi()	dd0b	Resync functional unit not selected.
s_i_rs_qst_mi()	dd0c	Invalid conditions for receiving resync request.
s_i_rs_qst_mi()	dd0e	Invalid conditions for receiving resync request.
s_i_rs_qst_mi()	dd0f	Must wait until send in progress completes before making resync request.
s_i_rs_qst_mi()	dd10	Failed to build RS SPDU.
s_i_rs_qst_mi()	dd11	Failed to send PR-RS SPDU.
s_i_rs_qst_mi()	dd12	Failed to send RS SPDU.
s_i_rs_qst_mi()	dd13	Invalid or unsupported resync type on resync request.
s_i_rs_qst_mi()	dd14	Invalid state for receiving resync request.
build_rs_spdu_mi()	dd15	Invalid token setting in RS request.
build_rs_spdu_mi()	dd16	Token setting missing in resync request when half duplex functional unit selected.
build_rs_spdu_mi()	dd17	Invalid or missing serial number in resync request.
build_rs_spdu_mi()	dd18	Too much user data for version 1 resync request.
build_rs_spdu_mi()	dd19	Resync request exceeds max SPDU size.
build_rs_spdu_mi()	dd1a	Resync request exceeds max TSDU size.
s_i_rs_rsp_mi()	dd1b	Serial number on resync response request does not match serial number on RS(a) indication.
s_i_rs_rsp_mi()	dd1c	Resync response requested before action completed for previous request.
s_i_rs_rsp_mi()	dd1d	Failure to build RA SPDU.
s_i_rs_rsp_mi()	dd1e	Failure in sending expedited PR-RA SPDU.
s_i_rs_rsp_mi()	dd1f	Failure to send RA SPDU.
s_i_rs_rsp_mi()	dd20	Illegal state for SS user to request a resync response.
build_ra_spdu_mi()	dd21	Illegal token setting on resync response.
build_ra_spdu_mi()	dd22	Illegal token setting on resync response.
build_ra_spdu_mi()	dd23	Illegal token setting on resync response.
build_ra_spdu_mi()	dd24	Token setting is missing on resync response.
build_ra_spdu_mi()	dd25	Illegal serial number on resync response.

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FUNCTION	CODE	COMMENT *(continued)*
build_ra_spdu_mi()	dd26	Too much user data for version 1 resync response.
build_ra_spdu_mi()	dd27	Resync response exceeds max SPDU size.
build_ra_spdu_mi()	dd28	Resync response exceeds max TSDU size.
s_i_rs_spdu_mi()	dd29	Discard of RS SPDU failed.
s_i_rs_spdu_mi()	dd2a	Invalid conditions for receiving RS SPDU.
s_i_rs_spdu_mi()	dd2b	Discard of RS SPDU failed.
s_i_rs_spdu_mi()	dd2c	Invalid conditions for receiving RS SPDU, or parse of RS SPDU failed.
s_i_rs_spdu_mi()	dd2d	Discard of RS SPDU failed.
s_i_rs_spdu_mi()	dd2e	Invalid conditions for receiving RS SPDU, or parse of RS SPDU failed.
s_i_rs_spdu_mi()	dd2f	Illegal state to receive RS SPDU.
s_rs_parse_mi()	dd30	Illegal token setting in RS SPDU.
s_rs_parse_mi()	dd31	Too much user data on RS SPDU for session protocol version 1.
s_rs_parse_mi()	dd32	Enclosure item not supported on RS SPDU.
s_rs_parse_mi()	dd33	Illegal parameter type on RS SPDU.
s_rs_parse_mi()	dd34	Parse of parameter on RS SPDU failed.
s_rs_parse_mi()	dd35	RS SPDU is missing mandatory resync type parameter.
s_rs_parse_mi()	dd36	RS SPDU is missing mandatory serial number parameter.
s_rs_parse_mi()	dd37	RS SPDU is missing token setting parameter in conditions when this parameter is mandatory.
s_i_ra_spdu_mi()	dd38	Discard of RA SPDU failed.
s_i_ra_spdu_mi()	dd39	Invalid conditions for receiving RA SPDU, or parse of RA SPDU failed.
s_i_ra_spdu_mi()	dd3a	Invalid conditions for receiving RA SPDU, or parse of RA SPDU failed.
s_i_ra_spdu_mi()	dd3b	Illegal state to receive RA SPDU.
s_ra_parse_mi()	dd3c	Conflicting token setting in RA SPDU.
s_ra_parse_mi()	dd3d	Conflicting token setting in RA SPDU.
s_ra_parse_mi()	dd3e	Illegal token setting in RA SPDU.
s_ra_parse_mi()	dd3f	Too much user data in RA SPDU.
s_ra_parse_mi()	dd40	Enclosure item not supported on RA SPDU.
s_ra_parse_mi()	dd41	Illegal parameter type on RA SPDU.
s_ra_parse_mi()	dd42	Parse of parameter on RA SPDU failed.
s_ra_parse_mi()	dd43	RA SPDU is missing mandatory serial number parameter.

FUNCTION	CODE	COMMENT *(continued)*
s_ra_parse_mi()	dd44	RA SPDU is missing token setting parameter in conditions when this parameter is mandatory.

AP HANDLER

SOURCE	FUNCTION	CODE	COMMENT
pinitap3.c	pinitap3	df00	Call to IODRV space controller for memory failed.
pinitap3.c	pinitap3	df01	APH could not attach application type to SSAP.
pmsgap3.c	pmsgap3	df01	APH could not attach application type to SSAP.
archive.c	arch_lib	df02	ECD access of aphuser record for archive user requesting a connection returned IDNULL or IDERROR.
as_op_cl.c	as_open	df02	ECD access of aphuser record returned IDNULL or IDERROR.
asi_funcs.c	as_con_ind	df02	ECD access of aphuser record that an indication is to go to returned IDNULL or IDERROR.
as_op_cl.c	as_open	df0e	alloc_mdct failed in as_open().
asi_funcs.c	as_con_ind	df0f	alloc_mdct failed in as_con_ind().

SCSD HANDLER

FUNCTION	CODE	COMMENT
prspsd3.c	e001	pushq1 failure.
pmsgsd3.c	e001	pushq1 failure.
sc_func.c	e001	pushq1 failure.
scsd.c	e102	No timing available.
prstsd3.c	e205	PC restoral failed.
sc_func.c	e206	Illegal internal state in sc_rst().
prspsd3.c	e503	Cannot allocate message.
prspsd3.c	e504	Failed to get port of Admin.
prspsd3.c	e506	Failed to send message to Admin.
prspsd3.c	e507	Unrecognized response from PC.
pmsgsd3.c	e701	Number of UCB pointers greater than one.
pmsgsd3.c	e707	Illegal point number.
pmsgsd3.c	e708	Illegal operation.
pmsgsd3.c	e709	Received unrecognized message.

FUNCTION	CODE	COMMENT *(continued)*
`pgrowsd3.c`	`e801`	Cannot allocate message.
`sc_admin.c`	`e902`	Bad port number used for Admin attach.
`prspsd3.c`	`eaxx`	PC returned error: code in low order bits (see completion codes).

PP HANDLER

Each error code is of the form *SNN*, where *S* is the severity of the error and *NN* is an error identifier unique within the given severity level.

The severity of an error will be one of the following:

`0` - Minor error. Either a resource was exhausted, a procedural error was committed, or a minor software error was encountered. In the second two cases, the user may proceed normally, though if a software error occurred, some resources may have been lost.

These messages print at level 2.

`1` - Association fatal error. An application association has gone insane. PPH will fail all send or receive requests from the user of the association until PPH is reinitialized, and any indication received by the association will result in an abort. Since the damage was limited to only the single association, other associations may proceed normally, though some resources may have been lost. Note that the affected user process may hang when errors of this sort occur. Each process will receive an E_ABORT event if the PPH is reinitialized. It is the process' responsibility to clean up and exit when this event is received.

These messages print at level 1.

`2` - PPH fatal error. PPH's global data structures have become inconsistent or corrupted. All associations will be locked up, and PPH will fail all send and receive requests from any user until PPH is reinitialized. An indication received for any association will result in an abort. Note that some or all user processes may hang when errors of this sort occur. Each process will receive an E_ABORT event if the PPH is reinitialized. It is the process' responsibility to clean up and exit when this event is received.

These messages print at level 1.

If a severity `1` or `2` error is encountered, contact the first level of technical support for instructions on how to reinitialize the PPH.

FUNCTION	CODE	COMMENT
acse_pm	f001	Unexpected or invalid ACSE indication; aborting association.
a_ascreq_idle	f002	Could not get pphuser record.
a_pascrsp_w_assoc_rsp	f003	Could not get ACSE Implementation Information.
a_nascrsp_w_assoc_rsp	f004	Could not get ACSE Implementation Information.
a_aarq_idle	f005	Error decoding AARQ; aborting association.
a_aarq_idle	f006	ACSE version not supported; refusing association.
a_aarq_idle	f007	Could not map to ACSE user; refusing association.
a_aarep_w_aare	f008	Error decoding AARE; aborting association.
a_aarep_w_aare	f009	Invalid ACSE version; aborting association.
a_aarep_w_aare	f00a	Invalid ACSE association result; aborting association.
a_aaren_w_aare	f00b	Error decoding AARE; aborting association.
a_aaren_w_aare	f00c	Invalid ACSE association result; aborting association.
a_aaren_w_aare	f00d	Invalid ACSE result source diagnostic; aborting association.
a_aaren_w_aare	f00e	ACSE Called Application Entity Invocation Identifier not recognized; aborting association.
a_rlrq_assoc	f00f	Error decoding RLRQ--APPLICATION 1 tag not present; aborting association.
a_rlrq_assoc	f010	Error decoding RLRQ--APPLICATION 1 tag not present; aborting association.
a_rlrq_assoc	f011	Error decoding RLRQ; aborting association.
a_rlrep	f012	Error decoding RLRE--APPLICATION 1 tag not present; aborting association.
a_rlrep	f013	Error decoding RLRE--APPLICATION 1 tag not present; aborting association.
a_rlrep	f014	Error decoding RLRE; aborting association.
a_p_2uabind_anybut_idle	f015	Error decoding ABRT; aborting association.
a_getrqevt	f016	Invalid read queue primitive; aborting association.
p_sindics	f017	Invalid session indication--ignored.
p_sindics	f018	Indication received while PPH fatal error condition exists; aborting connection.
p_sindics	f019	Presentation connection data structure invalid or all structures exhausted; aborting connection.
p_sindics	f01a	Indication received while association fatal error condition exists; aborting connection.
p_sindics	f01b	Indication structures exhausted; aborting connection.

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FUNCTION	CODE	COMMENT *(continued)*
p_sindics	f01c	Unexpected session indication received while another is pending; aborting connection.
p_sindics	f01d	Could not set session user information; aborting connection.
p_sindics	f01e	Could not free presentation connection data structure.
p_sindics	f01f	Encoded connect PDU header buffers exhausted; aborting connection.
p_sindics	f020	Could not free presentation connection data structure.
p_sindics	f021	Decoded connect PDU header buffers exhausted; aborting connection.
p_sindics	f022	Could not free presentation connection data structure.
p_sindics	f023	Could not receive connect PDU headers; connection is gone.
p_sindics	f024	Encoded connect PDU header buffers exhausted; aborting connection.
p_sindics	f025	Decoded connect PDU header buffers exhausted; aborting connection.
p_sindics	f026	Could not receive connect confirm PDU headers; connection is gone.
p_sindics	f027	Encoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f028	Decoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f029	Could not receive abort PDU headers; connection is gone.
p_sindics	f02a	Encoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f02b	Decoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f02c	Could not receive release PDU headers; connection is gone.
p_sindics	f02d	Encoded resynchronize PDU header buffers exhausted; aborting connection.
p_sindics	f02e	Decoded resynchronize PDU header buffers exhausted; aborting connection.
p_sindics	f02f	Could not receive resynchronize PDU headers; connection is gone.

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FUNCTION	CODE	COMMENT *(continued)*
p_sindics	f030	Received send acknowledgement when no user was attached; aborting connection.
p_sindics	f031	Received send acknowledgement when no user was attached; aborting connection.
p_sindics	f032	Could not free presentation connection data structure.
p_sindics	f033	Could not free presentation connection data structure.
p_sindics	f034	Could not free presentation connection data structure.
p_sindics	f035	Invalid action complete indication--ignored.
p_sindics	f036	Encoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f037	Decoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f038	Could not receive PDU headers; connection is gone.
p_give_sindic	f039	Decoded connect PDU header buffer was not allocated.
p_give_sindic	f03a	Could not free presentation connection data structure.
p_give_sindic	f03b	Fatal error occurred after passing up session indication.
p_free_pdu_buffers	f03c	Encoded connect PDU header buffer not allocated.
p_free_pdu_buffers	f03d	Decoded connect PDU header buffer not allocated.
p_free_pdu_buffers	f03e	Encoded abort PDU header buffer not allocated.
p_free_pdu_buffers	f03f	Decoded abort PDU header buffer not allocated.
p_free_pdu_buffers	f040	Encoded resynchronize PDU header buffer not allocated.
p_free_pdu_buffers	f041	Decoded resynchronize PDU header buffer not allocated.
p_free_pdu_buffers	f042	Invalid indication type; buffer not freed.
p_no_hdr_cleanup	f043	Could not free presentation connection data structure.
p_no_hdr_cleanup	f044	Invalid indication; PDU header buffers not freed and abort indication not sent.
p_no_hdr_cleanup	f045	Encoded abort PDU header buffers exhausted; aborting connection.
p_no_hdr_cleanup	f046	Decoded abort PDU header buffers exhausted; aborting connection.
a_dabort	f047	Unexpected user abort output PDU header buffer.

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FUNCTION	CODE	COMMENT *(continued)*
setup_edma	f048	Could not map user buffer.
p_add_tag	f049	Could not map user buffer.
pinitpp3	f04a	Unrecognized initialization type--ignored.
p_sindics	f04b	Could not discard data; connection is gone.
pmsgpp3	f04c	Process died with association waiting; aborting association.
si_detach	f04d	Detached while association waiting; aborting association.
pph_memory	f04e	Could not attach to SSAP.
pph_memory	f04f	ECD access error; may have unattached SSAPs.
pph_memory	f050	Too many pphuser records; excess records ignored.
si_close	f051	Closed while association waiting; aborting association.
pmsgpp3	f053	Could not map control buffer; read request failed.
pmsgpp3	f054	Could not map control buffer; write request failed.
pmsgpp3	f055	Could not map control buffer; detach request may or may not have failed.
pmsgpp3	f056	Invalid RC/V operation type--ignored.
pmsgpp3	f057	Could not attach to new SSAP--ignored.
pmsgpp3	f058	ECD access error; pphuser insertion ignored.
pmsgpp3	f059	ACSE user information structures exhausted; pphuser insertion ignored.
pmsgpp3	f05a	Could not attach to new SSAP--ignored.
pmsgpp3	f05b	Unrecognized pphuser record; update ignored.
pmsgpp3	f05c	ECD access error; pphuser update ignored.
pmsgpp3	f05d	Invalid RC/V operation type--ignored.
pmsgpp3	f05e	Unexpected ECD record type--ignored.
pmsgpp3	f05f	No presentation connection data structure corresponding to MSACK; association may have been previously aborted.
pmsgpp3	f060	Received MSACK for unexpected message type, or process creation failed.
pph_restart	f061	Detach failed or caused an active session connection to be aborted.
si_req_ack	f062	Could not map control buffer; user request failed.
pph_ssap_detach	f063	Detach failed or caused an active session connection to be aborted.
pph_ssap_detach	f064	Active user forcibly detached.
pph_ssap_detach	f065	Waiting user forcibly detached.

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FUNCTION	CODE	COMMENT *(continued)*
pph_ssap_detach	f066	Waiting association discarded because of a detach.
si_dequeue	f067	Queue corrupted; dequeue failed.
pres_pm	f068	Unexpected or invalid presentation layer indication; aborting connection.
p_cp_idle	f069	Error decoding CP; aborting connection.
p_cp_idle	f06a	Could not get pphuser record; refusing connection.
p_cp_idle	f06b	Called presentation address unknown; refusing connection.
p_cp_idle	f06c	Called presentation address unknown; refusing connection.
p_cp_idle	f06d	Presentation version not supported; refusing connection.
p_cp_idle	f06e	ACSE presentation context not found or transfer syntax not supported; refusing connection.
p_cpa_w_cpar	f06f	Error decoding CPA; aborting connection.
p_cpa_w_cpar	f070	Presentation version not supported; aborting connection.
p_cpa_w_cpar	f071	Presentation context definition result list not present; aborting connection.
p_cpa_w_cpar	f072	Presentation requirements not supported; aborting connection.
p_cpr_w_cpar	f073	Error decoding CPR; aborting connection.
p_cpr_w_cpar	f074	Presentation context definition result list not present; aborting connection.
p_arp_anybut_idle	f075	Error decoding ARP; aborting connection.
p_arp_anybut_idle	f076	Invalid presentation provider abort reason; aborting connection.
p_aru_anybut_idle	f077	Error decoding ARU; aborting connection.
p_rsyncind_dx	f078	Error decoding RS; aborting connection.
p_rsynccnf_dx	f079	Error decoding RSA; aborting connection.
p_getrqevt	f07a	Error in processing presentation indication; aborting connection.
p_getrqevt	f07b	Invalid session primitive; aborting connection.
si_attach	f07c	ACSE/PL user structures exhausted; attach failed.
si_attach	f07d	ECD access error; attach failed.
si_detach	f07e	Could not free ACSE/PL user structure.
si_detach	f07f	Unexpected ACSE/PL user structure; detach failed.
pp_get_p_con_data	f080	Presentation connection data structures exhausted.

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FUNCTION	CODE	COMMENT *(continued)*
pp_get_p_con_data	f081	Presentation connection data structure corrupted; discarding structure.
pp_free_p_con_data	f082	Invalid presentation connection data structure--ignored.
pp_free_p_con_data	f083	Unexpected user abort output PDU header buffer.
pp_free_p_con_data	f084	Indication queue corrupted; discarding presentation connection data structure.
pp_get_acse_pl_user	f085	ACSE/PL user structures exhausted.
pp_fr_acse_pl_user	f086	Invalid ACSE/PL user structure--ignored.
pp_fr_acse_pl_user	f087	Could not map control buffer; user request failed.
si_cbuf_size	f088	Invalid ACSE/PL indication.
si_open	f089	Process information structures exhausted; open failed.
si_close	f08a	Could not free ACSE/PL user structure.
si_enq_indic	f08b	Could not free ACSE/PL user structure.
si_prc_recv	f08c	Invalid ACSE/PL indication; aborting association.
si_prc_recv	f08d	Could not map control buffer; receive request failed.
si_prc_recv	f08e	Could not map user buffer; receive request failed.
si_prc_recv	f08f	Could not receive user data; association is gone.
si_cmp_recv	f090	Error decoding user data; aborting association.
si_cmp_recv	f091	User data overran buffer trailer area; aborting association.
si_cmp_recv	f092	Data present beyond end of PDUs; aborting association.
si_cmp_recv	f093	Invalid ACSE/PL indication; aborting association.
si_cmp_recv	f094	Could not acknowledge user request and data may have been lost; aborting association.
si_fr_inbuf	f095	Encoded connect PDU header buffer not found.
si_fr_inbuf	f096	Decoded connect PDU header buffer not found.
si_fr_inbuf	f097	Encoded abort PDU header buffer not found.
si_fr_inbuf	f098	Decoded abort PDU header buffer not found.
si_fr_inbuf	f099	Encoded resynchronize PDU header buffer not found.
si_fr_inbuf	f09a	Decoded resynchronize PDU header buffer not found.
si_fr_inbuf	f09b	Invalid ACSE/PL indication.
si_ack_recv	f09c	Could not receive user data; aborting association.
si_udata_present	f09d	Invalid ACSE/PL indication.

FUNCTION	CODE	COMMENT *(continued)*
si_dec_trailers	f09e	Error decoding ABRT trailer; aborting association.
si_dec_trailers	f09f	Error decoding ARU PDV-list trailer; aborting association.
si_dec_trailers	f0a0	Error decoding ARU trailer; aborting association.
si_dec_trailers	f0a1	Error decoding RLRQ trailer; aborting association.
si_dec_trailers	f0a2	Error decoding RLRQ PDV-list trailer; aborting association.
si_dec_trailers	f0a3	Error decoding RLRE trailer; aborting association.
si_dec_trailers	f0a4	Error decoding RLRE PDV-list trailer; aborting association.
si_dec_trailers	f0a5	Error decoding AARQ trailer; aborting association.
si_dec_trailers	f0a6	Error decoding AARQ PDV-list trailer; aborting association.
si_dec_trailers	f0a7	Error decoding CP trailer; aborting association.
si_dec_trailers	f0a8	Presentation mode not supported; aborting association.
si_dec_trailers	f0a9	Error decoding AARE trailer; aborting association.
si_dec_trailers	f0aa	Error decoding AARE PDV-list trailer; aborting association.
si_dec_trailers	f0ab	Error decoding CPA trailer; aborting association.
si_dec_trailers	f0ac	Presentation mode not supported; aborting association.
si_dec_trailers	f0ad	Error decoding AARE trailer; aborting association.
si_dec_trailers	f0ae	Error decoding AARE PDV-list trailer; aborting association.
si_dec_trailers	f0af	Error decoding CPR trailer; aborting association.
si_dec_trailers	f0b0	Error decoding RS trailer; aborting association.
si_dec_trailers	f0b1	Error decoding RSA trailer; aborting association.
si_dec_trailers	f0b2	Unexpected provider abort PDU trailers.
si_dec_trailers	f0b3	Unexpected data, expedited data, give token, or please token PDU trailers.
si_dec_trailers	f0b4	Invalid ACSE/PL indication.
si_end_data	f0b5	Invalid ACSE/PL indication.
si_end_data	f0b6	Could not map user buffer and data may have been lost; aborting association.
si_more_data	f0b7	More data result received for unexpected indication type; aborting association.
si_more_data	f0b8	Could not map control buffer and data may have been lost; aborting association.
si_map_assoc	f0b9	No user found to receive association indication.

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FUNCTION	CODE	COMMENT *(continued)*
si_map_assoc	f0ba	Could not get ucb record for process creation.
si_map_assoc	f0bb	ECD access error.
si_map_assoc	f0bc	Could not allocate process creation message.
si_map_assoc	f0bd	Could not send process creation message.
si_prc_send	f0be	Could not map control buffer; failing send request.
si_prc_send	f0bf	Presentation connection data structures exhausted; failing association request.
si_prc_send	f0c0	Unexpected encoded abort PDU header buffer.
si_prc_send	f0c1	Encoded abort PDU header buffers exhausted.
si_prc_send	f0c2	Unexpected encoded connect PDU header buffer.
si_prc_send	f0c3	Encoded connect PDU header buffers exhausted.
si_fr_outbuf	f0c4	Encoded abort PDU header buffer not found.
si_fr_outbuf	f0c5	Encoded connect PDU header buffer not found.
si_fr_outbuf	f0c6	Invalid ACSE/PL indication.
si_abt_comp	f0c7	Could not free ACSE/PL user structure.
si_abt_ind	f0c8	Could not map control buffer; failing send request.
si_resync_ind	f0c9	Could not map control buffer; failing send request.
si_resync_ind	f0ca	Could not map control buffer; failing send request.
si_resync_ind	f0cb	Could not map control buffer; failing send request.
si_resync_ind	f0cc	Could not map control buffer; failing send request.
si_send_abt	f0cd	Unexpected generated abort failure or process created user died without closing.
si_send_abt	f0ce	Unexpected generated abort failure.
si_send_abt	f0cf	Unexpected generated abort failure.
si_send_abt	f0d0	Unexpected generated abort failure.
si_send_abt	f0d1	Unexpected generated abort failure.
si_send_abt	f0d2	Unexpected generated abort failure.
si_send_abt	f0d3	Invalid return code from ACSE protocol machine.
si_snd_pabt	f0d4	Unexpected generated abort failure.
si_snd_pabt	f0d5	Unexpected generated abort failure.
si_snd_pabt	f0d6	Unexpected generated abort failure.
si_snd_pabt	f0d7	Unexpected generated abort failure.
si_snd_pabt	f0d8	Unexpected generated abort failure.
si_snd_pabt	f0d9	Unexpected generated abort failure.
si_snd_pabt	f0da	Invalid return code from ACSE protocol machine.
pp_discard	f0db	Could not receive data to be discarded; association is gone.
si_deq_msg	f0dc	Data corruption in ACSE/PL user queue; PPH will be restarted.

FUNCTION	CODE	COMMENT *(continued)*
si_deq_msg	f0dd	Hanging ACSE/PL user may occur after PPH is restarted.
flshmpp3	f0de	Data corruption in ACSE/PL user's receive queue; PPH will be restarted.
flshmpp3	f0df	Hanging ACSE/PL user may occur after PPH is restarted.
pph_init	f0e0	ECD access error; unable to get messages count from btparm record.
p_sindics	f101	Presentation connection data structure corrupted; discarding structure and aborting connection.
p_sindics	f102	Waiting indication queue corrupted; abort indication ignored.
p_sindics	f103	Indication free queue corrupted; abort indication ignored.
p_sindics	f104	Presentation connection data structure corrupted; discarding structure and aborting connection.
p_sindics	f105	Indication free queue corrupted; discarding presentation connection data structure.
p_sindics	f106	Indication free queue corrupted; discarding presentation connection data structure.
p_sindics	f107	Indication free queue corrupted; discarding presentation connection data structure.
p_sindics	f108	Waiting indication queue corrupted; receive acknowledgement indication ignored.
p_sindics	f109	Waiting indication queue corrupted.
p_sindics	f10a	Waiting indication queue corrupted.
p_s_rs_req	f10b	Receive request queue corrupted.
p_s_rs_req	f10c	Indication queue corrupted.
pp_fr_waiting_indics	f10d	Waiting indication queue corrupted.
pp_fr_waiting_indics	f10e	Waiting indication queue corrupted.
si_enq_recv	f10f	Receive request queue corrupted; receive request failed.
si_enq_indic	f110	Receive request queue corrupted; receive request failed.
si_enq_indic	f111	Indication queue corrupted; discarding presentation connection data structure.
si_prc_recv	f112	Indication queue corrupted; receive request failed.
si_recv_error	f113	Indication queue corrupted; no abort sent.
si_recv_error	f114	Receive request queue corrupted; no abort sent.
si_enq_send	f115	Send request queue corrupted; request failed.

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FUNCTION	CODE	COMMENT *(continued)*
si_resync_ind	f116	Send request queue corrupted; failing send request.
si_resync_ind	f117	Send request queue corrupted; failing send request.
acse_pm	f201	ACSE double abort finite state machine entry not found.
acse_pm	f202	Internally generated ACSE finite state machine entry not found.
p_sindics	f203	ACSE/PL user structure queue corrupted; action complete indication ignored.
p_sindics	f204	Presentation connection data structure queue corrupted; action complete indication ignored.
p_sindics	f205	Presentation connection data structure queue corrupted; action complete indication ignored.
p_sindics	f206	Received action complete indication when no user was attached; indication ignored.
p_sindics	f207	Received receive complete indication when no user was attached; indication ignored.
p_give_sindic	f208	Invalid return code from presentation layer protocol machine.
p_gen_cpr	f209	Could not encode generated CPR.
p_p_dabort	f20a	Could not encode generated ARP.
p_p_dabort	f20b	Could not set up EDMA for generated ARP.
a_gen_aaren	f20c	Could not encode generated refuse AARE.
a_gen_aaren	f20d	Could not set up EDMA for generated refuse AARE.
a_gen_aaren	f20e	Could not send generated refuse AARE.
a_dabort	f20f	Could not encode generated ABRT.
a_dabort	f210	Could not set up EDMA for generated ABRT.
a_dabort	f211	Could not send generated ABRT.
pph_memory	f212	ACSE user information table corrupted.
pp_mem_complete	f213	Invalid dynamic memory type; initialization failed.
pp_mem_complete	f214	Incorrect amount of dynamic memory; initialization failed.
pp_mem_complete	f215	Invalid dynamic memory type; initialization failed.
pmsgpp3	f216	ACSE user information structure queue corrupted.
pmsgpp3	f217	ACSE user information structure queue corrupted.
pmsgpp3	f218	ACSE user information structure queue corrupted.
pph_ssap_detach	f219	Presentation connection data structure queue corrupted.

FUNCTION	CODE	COMMENT *(continued)*
pph_ssap_detach	f21a	ACSE/PL user structure queue corrupted.
pph_ssap_detach	f21b	ACSE/PL user structure queue corrupted.
pph_ssap_detach	f21c	Presentation connection data structure queue corrupted.
pres_pm	f21d	Presentation double abort finite state machine entry not found; aborting connection.
pres_pm	f21e	Internally generated presentation finite state machine entry not found; aborting connection.
si_attach	f21f	Presentation connection data structure queue corrupted; attach failed.
si_detach	f220	Process information structure not found; detach failed.
si_detach	f221	ACSE/PL user structure queue corrupted; detach failed.
pp_fr_acse_pl_user	f222	ACSE/PL user structure still linked to presentation connection data structure.
si_close	f223	ACSE/PL user structure queue corrupted.
si_close	f224	Process information structure queue corrupted.
si_enq_indic	f225	Presentation connection data structure queue corrupted.
si_enq_indic	f226	Presentation connection data structure queue corrupted.
si_enq_indic	f227	ACSE/PL user structure queue corrupted.
si_cmp_recv	f228	Presentation connection data structure queue corrupted.
si_cmp_recv	f229	ACSE/PL user structure queue corrupted.
si_map_assoc	f22a	ACSE/PL user structure queue corrupted.
si_prc_send	f22b	ACSE/PL user structure not found or queue is corrupted.
si_prc_send	f22c	ACSE/PL user structure queue corrupted.
si_prc_send	f22d	Presentation connection data structure queue corrupted.
si_prc_pm_result	f22e	Unexpected return code from protocol machine.
si_prc_pm_result	f22f	Presentation connection data structure queue corrupted.
si_prc_pm_result	f230	ACSE/PL user structure queue corrupted.
si_cmp_send	f231	Presentation connection data structure queue corrupted.
si_cmp_send	f232	ACSE/PL user structure queue corrupted.

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FUNCTION	CODE	COMMENT *(continued)*
si_abt_comp	f233	Presentation connection data structure queue corrupted.
si_abt_comp	f234	ACSE / PL user structure queue corrupted.
si_send_abt	f235	Presentation connection data structure queue corrupted.
si_snd_pabt	f236	ACSE / PL user structure queue corrupted.
si_snd_pabt	f237	Presentation connection data structure queue corrupted.
pph_init	f238	Exceeded dynamic memory limit; initialization failed.
pph_memory	f239	Could not allocate dynamic memory; initialization failed.
pph_memory	f23a	Could not allocate timer; initialization failed.
pp_ecd_init_info	f23b	ECD access error; initialization failed.
pp_ecd_init_info	f23c	ECD access error; initialization failed.

BXSL HANDLER

modglob.c	e1	A signal has been delivered to a locked model. Model name, signal number, and state of the model are given. Format of additional string information is defined as: m4:*p q r p* = A string of model name. *q* = Signal in hexadecimal. *r* = Major control block's state in decimal.
modglob.c	e2	A signal is not recognized by a model. Model name, signal number, and state of the model are given. Format of additional string information is defined as: m4:*p q r p* = A string of model name. *q* = Signal in hexadecimal. *r* = Major control block's state in decimal.
modglob.c	e3	A signal is sent from a major model to a submodel that has not been invoked. Hex code for the major model, state of the major model, and signal number are given. Format of additional string information is defined as: m4:*p q r p* = Major model in hexadecimal. *q* = State of the major model in decimal. *r* = Signal in hexadecimal.

FUNCTION	CODE	COMMENT *(continued)*
modglob.c	e4	A major model attempted to invoke a submodel that is already invoked. Address of the major model and state of the major model are given. Format of additional string information is defined as: m4: *p q p* = Model control function's program address in hexadecimal. *q* = Model control block's state in decimal.
pmsgsl3.C	e5	The model failed to free an scb from the user. Some scb structures may be orphaned.
modglob.c	f0	Idle_model() was called with a Session Control Block address of NULL. Return address of the caller is given. Format of additional string information is defined as: m4: *p p* = Idle_model() return address in hexadecimal.
modglob.c	f1	Idle_model() was called with a Session Control Block still joined to the user. Address of the model and state of the model is given. Format of additional string information is defined as: m4: *p q p* = Model control function's program address in hexadecimal. *q* = Model control block's state in decimal.
modglob.c	f2	Idle_model() was called with a Session Control Block still joined to the circuit. Address of the model and state of the model is given. Format of additional string information is defined as: m4: *p q p* = Model control function's program address in hexadecimal. *q* = Model control block's state in decimal.
modglob.c	f3	Idle_model() was called and the Input submodel has not been updated to idle. Address of the input submodel, state of the input submodel, address of the major model, and state of the major model are given. Format of additional string information is defined as: m4: *p q r s p* = Input model control function's program address in hexadecimal. *q* = Input model control block's state in decimal. *r* = Model control function's program address in hexadecimal. *s* = Model control block's state in decimal.

FUNCTION	CODE	COMMENT *(continued)*
`modglob.c`	`f4`	`Idle_model()` was called and the Output submodel has not been updated to idle. Address of the output submodel, state of the output submodel, address of the major model, and state of the major model are given. Format of additional string information is defined as: `m4`: *p q r s p* = Output model control function's program address in hexadecimal. *q* = Output model control block's state in decimal. *r* = Model control function's program address in hexadecimal. *s* = Model control block's state in decimal.
`modglob.c`	`f5`	`Idle_model()` was called and the auxiliary input buffer has not been released. Address and state of the model are given. Format of additional string information is defined as: `m4`: *p q p* = Model control function's program address in hexadecimal. *q* = Model control block's state in decimal.
`modglob.c`	`f6`	`Idle_model()` was called and a timer is still running. The timer type, address and state of the model are given. Format of additional string information is defined as: `m4`: *p q r p* = Session control block's timer type in hexadecimal. *q* = Output model control function's program address in hexadecimal. *r* = Output model control block's state in decimal.
`modglob.c`	`f7`	`Idle_model()` was called and the Session Control Block is still on the list of pcreated processes. Address of the model and state of the model are given. Format of additional string information is defined as: `m4`: *p q p* = Model control function's program address in hexadecimal. *q* = Model control block's state in decimal.
`sltime.C`	`7`	Current timer index in SCB is not the same as the time-out index. Format of additional string information is defined as: `TIM`: *p q p* = Current timer index in hexadecimal; *q* = Time-out index in hexadecimal. Connect id mapping failed. Format of additional string information is defined as: `Tmapfail`: *p p* = Session connect id in hexadecimal;

SPECIAL WARNING MESSAGES

CODE	COMMENT
`fff01`	No responses to process in interrupt entry.

CODE COMMENT *(continued)*

`fff02`	Response not properly passed to handler (lost).
`fff03`	Resp queue ul pointer written by someone other than IODRV.

The output of all of the above error codes can be controlled by the `SET:IODRV` and `CLR:IODRV` input commands.

ID . . . . . APP-IOP-APPF-C
GENERIC . . . . . UNIX RTR R21.27 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

ERROR CODES GENERATED BY IODRV

NOTE: These error codes are in hexadecimal notation.

IODRV

FUNCTION	CODE	COMMENT
`iointr.c`	`0100`	Cannot convert iorid to ucblp.
`iointr.c`	`0101`	Report error has exceeded the acceptable error count.
`iointr.c`	`0102`	Cannot reset interrupt flag in BIC.
`iointr.c`	`0104`	PIC passed out of range load printer.
`iointr.c`	`0106`	Failed to sense D2SBS status.
`iointr.c`	`0107`	D2SBS status off-normal.
`em_iointr.c`	`0108`	Error encountered getting response from response queue.
`procrsp.c`	`0200`	Base priority queue overflow.
`procrsp.c`	`0300`	Cannot convert iorid to ucblp.
`procrsp.c`	`0301`	Unknown response received.
`procrsp.c`	`0304`	PC audit response failure.
`procrsp.c`	`0400`	Cannot convert iorid to ucblp.
`procrsp.c`	`0401`	Unknown response received.
`kost.c`	`0501`	OST is invalid for this dev.
`kost.c`	`0504`	Extraneous OST.
`kost.c`	`0505`	Cannot map ldin to UCB(s).
`servr2.c`	`0600`	Cannot convert iorid to ucblp.
`servr2.c`	`0640`	Failed to get PCSD's UCB.
`servr2.c`	`0641`	`downucb()` failed for PCSDs.
`servr2.c`	`0642`	Cannot get PC's UCB.
`servr2.c`	`0643`	`downucb()` failed to get PC's UCB.
`servr2.c`	`0644`	Failed to get IOP's UCB.
`servr2.c`	`0645`	Link to device handler failed.
`servr2.c`	`0646`	Link to device handler failed.
`servr2.c`	`0670`	Failed to get PCSD's UCB.

FUNCTION	CODE	COMMENT *(continued)*
servr2.c	0671	downucb() failed for PCSDs.
servr2.c	0672	Cannot get PC's UCB.
servr2.c	0673	downucb() failed to get PC's UCB.
servr2.c	0674	Failed to get IOP's UCB.
servr2.c	0677	Cannot get IOP/PC's UCB.
procrsp.c	0711	Encountered idle response queue entry.
procrsp.c	0712	Response queue load pointer out of range.
isc.c	0740	isalloc failure - align argument out of acceptable range.
isc.c	0741	isalloc failure - user requested more than segment of space.
isc.c	0742	isalloc failure - iolockseg failed.
isc.c	0743	isalloc failure - no requester nodes available.
isc.c	0744	isalloc error - isalign could not find growable element.
isc.c	0748	isalloc failure - IMF add message could not be sent to MMGR.
isc.c	0749	isalloc failure - IMF grow message could not be sent to MMGR.
isc.c	074a	isalloc failure - IMF add message could not be sent to MMGR.
isc.c	0750	isc problem - MSACK from MMGR indicates add failed.
isc.c	0751	isc failure - grow retry failed.
isc.c	0752	isc failure - isimfretry could not find growable element.
isc.c	0758	isc failure - normal grow request failed.
isc.c	0759	isc failure - retry grow request for single user failed.
isc.c	075a	isc failure - degrow request failed.
isc.c	075b	isc failure - grow of unidentifiable type failed.
isc.c	075c	isalloc failure - iolockseg failed.
isc.c	0760	isc problem - IMF could not send remove message to MMGR.
isc.c	0761	isc problem - IMF could not send degrow message to MMGR.
isc.c	0768	iscanreq failure - invalid cancellation identifier.
isc.c	0769	iscanreq failure - invalid cancellation identifier (o).
isc.c	0770	isfree problem - attempt to unlock failed.
isc.c	0771	isfree failure - invalid security identifier.

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FUNCTION	CODE	COMMENT *(continued)*
isc.c	0772	isfree failure - invalid user area address.
isc.c	077a	isunlk failure - imf could not decrement lock count.
isc.c	077b	isunlk warning - block unlocked but iounlkseg not invoked.
isc.c	077c	isunlk failure - invalid security identifier.
isc.c	077d	isunlk failure - invalid user area address.
isc.c	077e	isc problem - no growable free space element in segment.
smc.c	0780	smalloc failure - SMID length argument exceeds maximum.
smc.c	0781	smalloc failure - invalid alignment boundary argument.
smc.c	0782	smalloc failure - block length argument exceeds allocated size.
smc.c	0783	smalloc failure - alignment argument differs from allocated block.
smc.c	0784	smalloc failure - no requester nodes available.
smc.c	0785	smalloc failure - block length argument exceeds size requested.
smc.c	0786	smalloc failure - no shared memory block request nodes available.
smc.c	0787	smalloc failure - no requester nodes available.
smc.c	0788	smalloc failure - ISC allocation failed.
smc.c	0789	smalloc error - rqip node not found.
smc.c	078a	smalloc failure - ISC allocation failed.
smc.c	0790	smcanreq failed - invalid cancel request identifier.
smc.c	0791	smcanreq failed - invalid shared memory identifier.
smc.c	0792	smcanreq failed - zero is invalid cancel request identifier.
smc.c	0798	smfree failed - invalid shared memory block address.
smc.c	0799	smfree failed - invalid security identifier.
cfr.c	07c0	cfread failure - no requester nodes available.
cfr.c	07c1	cfread failure - no file request nodes available.
cfr.c	07c2	cfread failure - no requester nodes available.
cfr.c	07c8	cfread failure - unable to open file.
cfr.c	07d0	cfread failure - isalloc unsuccessful.

FUNCTION	CODE	COMMENT *(continued)*
cfr.c	07d1	cfread abort by cfreadbuf - no requesters or invalid state.
cfr.c	07d8	cfread - iounlk failed in cfreadack.
cfr.c	07d9	cfread failure - FMGR message acknowledgement has bad status.
cfr.c	07da	cfread - no file request node found for read acknowledgement.
cfr.c	07e0	cfread failure - FMGR message retry threshold exceeded.
cfr.c	07e4	cfread failure - RQIP node with timeout tag not found.
cfr.c	07e8	cfcanreq error - invalid cancel request identifier.
cfr.c	07e9	cfcanreq error - file not found.
cfr.c	07ea	cfcanreq error - invalid cancel request identifier.
cfr.c	07f0	cffree - freeing file with negative use count.
cfr.c	07f1	cffree error - invalid security identifier.
cfr.c	07f2	cffree error - invalid address.
cfr.c	07f3	`cfaunlock()` - freeing file with negative use count.
cfr.c	07f8	cfread failure - message buffer overflow.
cfr.c	07f9	cfread failure - timer request unsuccessful.
cfr.c	07fa	cfread failure - message buffer overflow.
cfr.c	07fb	cfread failure - timer request unsuccessful.
cfr.c	07fc	cfread failure - kgetsgn call unsuccessful.
cfr.c	07fd	cfread - queuemn for close message to FMGR unsuccessful.
cfr.c	07fe	cfread - buffer allocation failure for close message.
faultaud.c	0802	No handler to process message audit. Format of additional string information is defined as: `UNIT` *a b a* = A string for device name. *b* = A decimal for device number.
ioevnt.c	0803	Invalid message type.
ioevnt.c	0804	Msg doesn't contain an iorid.
ioevnt.c	0805	Msg doesn't contain an iorid.
ioevnt.c	0806	IOMESG msg doesn't contain an iorid.
ioevnt.c	0808	Cannot link msg to device handler.
ioevnt.c	0809	Cannot link msg to maint handler.
ioevnt.c	080a	Unknown message type.
ioevnt.c	080b	Cannot link msg to device handler.
ioevnt.c	080c	IODRV both send and receiver of message (not USRACK).

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FUNCTION	CODE	COMMENT *(continued)*
ioevnt.c	0810	Not a pointer in driver's data space.
ioevnt.c	0813	Cannot link message to Transport Protocol Handler.
ioevnt.c	0814	Failed to get UCB record for sub-device.
ioevnt.c	0815	Failed to get UCB record for controller.
ioevnt.c	0816	Invalid controller for BREAK signal.
ioevnt.c	0817	Cannot link message to CIH handler.
faultaud.c	0828	lkhand1() returned ENOHAND.
faultaud.c	0829	Cannot map to a UCB.
faultaud.c	082a	Invalid input option.
faultaud.c	0830	USRACK expected in system returned message.
faultaud.c	0831	lkhand1() returned ENOHAND.
faultaud.c	0832	lkhand1() returned ENOHAND.
faultaud.c	0833	lkhand1() returned ENOHAND.
procmsg.c	0901	RID cannot map to a UCB. Format of additional string information is defined as: *a b c d a* = Message sender's process number in hexadecimal. *b* = c is a MDCT RID '1' indicates that to be a UCB RID. *c* = UCB PID or MDCT RID in hexadecimal. *d* = Message sender's utility id in hexadecimal. To get a full copy of the above UCB or MDCT, use following browse procedures: ">" is the browse prompt, after it is the operator input. The line below the input line is response from browse. Comments enclosed are not part of the input/response. >**browse %-ecd** /* Enter database name for browse */ %-ecd /* browse acknowledgement */ >**dd /usr/bin/ecd_aux** /* Enter data dictionary look up */ /usr/bin/ecd_aux /* browse acknowledgement */ >**0x496a0/r** /* dump record with RID of 0x496a0 */ ..... content of the record ..... >**q** /* quit after dump completion */
procmsg.c	0902	Invalid input option (not CVTRID or CVTLDIN).
procmsg.c	0905	Cannot link msg to maint handler.
procmsg.c	0906	Cannot link msg to device handler.
procmsg.c	0a01	Cannot map RID to UCB.
procmsg.c	0a06	Cannot link msg to device handler.
updflsh.c	0b00	PCn Flash programming - timed out - mark PC community in service.
updflsh.c	0b01	PCn Flash programming - timed out - clear PC.
updflsh.c	0b02	PCn Flash programming - timed out - reset PC isolate flip-flop and mark in service.

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FUNCTION	CODE	COMMENT *(continued)*
updflsh.c	0b03	PCn Flash programming - timed out - read PC scan back.
updflsh.c	0b04	PCn Flash programming - timed out - pump PC code.
updflsh.c	0b05	PCn Flash programming - timed out - read PC code version.
updflsh.c	0b06	PCn Flash programming - timed out - execute PC code.
updflsh.c	0b07	PCn Flash programming - timed out - pump PC code.
updflsh.c	0b08	PCn Flash programming - timed out - clear PC.
updflsh.c	0b0b	PCn Flash programming - `proc_ufm()` failed to get timer to update Flash RAM.
updflsh.c	0b0c	PCn Flash programming - timed out - update Flash RAM.
initma.c	0c00	`initdb()` cannot get list of IOPs.
initma.c	0c01	initdb() cannot attach to database.
initma.c	0c02	Failed DMAC RAM initialization - IOPn not restored.
initma.c	0c03	EMPT pointer has bad virtual address.
initma.c	0c04	EMPT has bad virtual address.
initma.c	0d00	IOP member number too large - IOPn not restored.
initma.c	0d03	Cannot convert iorid to ucblp.
initma.c	0d04	Cannot convert iorid to ucblp.
initma.c	0d05	Cannot get list of IOPs.
initma.c	0d06	Cannot attach to ECD.
initma.c	0d07	IOPn attached to wrong port.
initma.c	0d08	`timreq1()` function returned FAIL.
initma.c	0d09	Failed to attach to a port.
initma.c	0d0a	Unable to obtain PC power down reset timer.
initmb.c	0e04	Memory not allocated for IOPn - leave OOS.
initmb.c	0e05	Unable to convert PC RID to UCB.
initmb.c	0e06	Unable to convert PCSD RID to UCB.
initmb.c	0e07	No memory exists for PC.
initmb.c	0e08	No memory exists for PCSD.
initmb.c	0e0a	Downucbs returned fail.
initmb.c	0e0b	Downucbs function returned fail.
servr2.c	0f00	Unable to convert I/O rid to a ucblp.
servr2.c	0f01	Cannot map virt addr to a seg no., or downucbs failed for PCSDs.
servr2.c	0f02	Cannot lock segment or cannot get PC's UCB.

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FUNCTION	CODE	COMMENT *(continued)*
servr2.c	0f03	Cannot unlock segment or cannot get PC's UCB.
servr2.c	0f04	Failed to get IOP's UCB.
servr2.c	0f05	Failed to link to application handler.
servr2.c	0f06	Link to device handler failed.
picgh.c	1001	Asynchronous PIC completion failure report (not during restoral).
picgh.c	1002	Generic PIC handler in wrong state for given response.
servr1.c	1100	C_FAIL returned by CONFIG for rptrerr.
servr1.c	1101	Recovery - timeout request failure.
servr1.c	1102	Cannot convert iorid to ucblp.
servr1.c	1103	Recovery will be performed on device.
picgh.c	1200	IOPn restore - no timing available.
picgh.c	1300	IOPn restore - cannot clear BIC.
picgh.c	1302	IOPn restore - invalid sequence number.
picgh.c	1303	IOPn restore - cannot reset PIC.
picgh.c	1306	IOPn restore - cannot send sysgen pio.
picgh.c	1307	IOPn restore - failed to enable interrupts.
picgh.c	1308	IOPn restore - cannot clear D2SBS.
picgh.c	1309	IOP restore - PIC pump failure - trying alternate pumpcode filename. ECD may have incorrect name for IOP pump file or system might be configured for 3B20D IOP.
picgh.c	130a	IOP restore - PIC pump failure - trying backup version alternate pumpcode filename. ECD may have incorrect name for IOP pump file or the primary pumpcode file may be corrupted or the IOP is configured for the computer.
picgh.c	130d	Failed to free use of the pumpcode file.
picgh.c	130e	Cancellation of request to read pumpcode file failed.
picgh.c	1400	IOPn restore - completion code error.
picgh.c	1401	IOPn restore - invalid sequence number.
picgh.c	1402	IOPn restore - the `asndma21()` function failed to assign DMA slot.
picgh.c	1403	IOPn restore - the `getpta()` function failed to get PTA.
picgh.c	1404	IOPn restore - the `sendpio1()` function failed to send the command to IOP.
picgh.c	1405	IOPn restore - the `cfread()` function failed to read the pumpcode file.

FUNCTION	CODE	COMMENT *(continued)*
picgh.c	1406	IOPn restore - invalid sequence number.
picgh.c	1407	IOPn restore - the `getsucbl()` function call failed, cannot retrieve the UCB record for the IOP.
picgh.c	1408	IOPn restore - the `getpta()` function failed to get PTA.
picgh.c	1409	IOPn restore - the `asndma21()` function failed to assign DMA slot.
picgh.c	1500	IOPn restore - timed out.
pcgh.c	1601	Asynchronous PC completion failure report (not during restoral).
pcgh.c	1602	Generic PC handler in wrong state for given response.
pcgh.c	1701	PCn restore failed.
pcgh.c	1702	Cannot get PIC UCB.
prms.c	170a	Unable to get message buffer for PRM.
prms.c	170b	Unable to send PRM message to SIM.
pcgh.c	1800	PCn restore - command queue failure - mark PC comm in service.
pcgh.c	1801	PCn restore - command queue failure - clear PC.
pcgh.c	1802	PCn restore - command queue failure - reset PC isolate flip-flop and mark in service.
pcgh.c	1803	PCn restore - command queue failure - read PC scanback.
pcgh.c	1804	PCn restore - command queue failure - pump PC code.
pcgh.c	1805	PCn restore - command queue failure - execute PC code.
pcgh.c	1806	`getpta()` returned failure.
pcgh.c	1807	PCn restore - invalid sequence number.
pcgh.c	1808	PCn restore - command queue failure - read PC code version.
pcgh.c	1809	MTTYC restore - PC pump failure - trying alternate pumpcode filename. ECD database may have incorrect name for MTTYC pump file (TN83/TN983).
pcgh.c	180a	pcclear failed to free copy of pump file.
pcgh.c	180b	pcclear failed to cancel pending request for copy of pump file.
pcgh.c	180c	`Asndma1()` failure.
pcgh.c	180d	pccomp cannot pump - getpta call failed.
pcgh.c	180e	pccomp cannot pump - cfread failed.

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FUNCTION	CODE	COMMENT *(continued)*
pcgh.c	180f	PCn pump abort - PC already being pumped.
pcgh.c	1810	PCn pump abort - wrong sequence number.
pcgh.c	1811	PCn restore failure - could not get UCB.
pcgh.c	1813	`getpta()` returned failure for MTTYC (UN583).
pcgh.c	1814	MTTYC restore - command queue failure - read UN583 pump file version.
pcgh.c	1820	PCn restore - no timing available.
pcgh.c	1821	MTTYC restore - no timing available - read UN583 pump file version.
pcgh.c	1900	PCn restore - completion code failure mark PC comm in service.
pcgh.c	1901	PCn restore - completion code failure- clear PC.
pcgh.c	1902	PCn restore - completion code failure - reset PC isolate flip-flop and mark in service.
pcgh.c	1903	PCn restore - completion code failure - read PC scan back.
pcgh.c	1904	PCn restore - completion code failure - pump PC code.
pcgh.c	1905	PCn restore - completion code failure - execute PC code.
pcgh.c	1906	PCn restore - invalid sequence no.
pcgh.c	1907	PCn restore - no timing available.
pcgh.c	1908	PCn restore - completion code failure - read PC code version.
pcgh.c	1909	PCn restore - PC not plugged in.
pcgh.c	190a	MTTYC restore - completion code failure - read UN583 pump file version.
pcgh.c	1930	PCn restore - unrecognized response - mark PC comm in service.
pcgh.c	1931	PCn restore - unrecognized response - clear PC.
pcgh.c	1932	PCn restore - unrecognized response - reset PC isolate flip-flop and mark in service.
pcgh.c	1933	PCn restore - unrecognized response - read PC scan back.
pcgh.c	1934	PCn restore - unrecognized response - pump PC code.
pcgh.c	1935	PCn restore - unrecognized response - execute PC code.
pcgh.c	1938	PCn restore - unrecognized response - read PC code version.

FUNCTION	CODE	COMMENT *(continued)*
pcgh.c	1939	MTTYC restore - unrecognized response - read UN583 pump file version.
pcgh.c	1a00	PCn restore - timed out - mark PC comm in service.
pcgh.c	1a01	PCn restore - timed out - clear PC.
pcgh.c	1a02	PCn restore - timed out - reset PC isolate flip-flop and mark in service.
pcgh.c	1a03	PCn restore - timed out - read PC scanback.
pcgh.c	1a04	PCn restore - timed out - pump PC code.
pcgh.c	1a05	PCn restore - timed out - read PC code version.
pcgh.c	1a06	PCn restore - timed out - execute PC code.
updflsh.c	1a0b	PCn Flash programming - `prgflsh1()` command queue failure - mark PC community in service.
updflsh.c	1a0c	PCn Flash programming - `prgflsh1()` command queue failure - clear PC.
updflsh.c	1a0d	PCn Flash programming - `prgflsh1()` command queue failure - reset PC isolate flip-flop and mark in service.
updflsh.c	1a0e	PCn Flash programming - `prgflsh1()` command queue failure - read PC scan back.
updflsh.c	1a0f	PCn Flash programming - `prgflsh1()` failed to get page table address.
updflsh.c	1a10	PCn Flash programming - `prgflsh1()` command queue failure - read PC code version.
updflsh.c	1a11	PCn Flash programming - `prgflsh1()` command queue failure - execute PC code.
updflsh.c	1a12	PCn Flash programming - `prgflsh1()` command queue failure - clear PC.
updflsh.c	1a13	PCn Flash programming - `prgflsh1()` failed to get a message buffer.
updflsh.c	1a14	PCn Flash programming - `prgflsh1()` - invalid sequence number.
updflsh.c	1a20	PCn Flash programming - `prgflsh1()` - no timing available for mark PC community in service.
updflsh.c	1a21	PCn Flash programming - `prgflsh1()` - no timing available for clear PC.
updflsh.c	1a22	PCn Flash programming - `prgflsh1()` - no timing available for reset PC isolate flip-flop and mark in service.

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FUNCTION	CODE	COMMENT *(continued)*
updflsh.c	1a23	PCn Flash programming - prgflsh1() - no timing available for read PC scan back.
updflsh.c	1a24	PCn Flash programming - prgflsh1() - no timing available for read PC code version.
updflsh.c	1a25	PCn Flash programming - prgflsh1() - no timing available for execute PC code.
updflsh.c	1a26	PCn Flash programming - prgflsh1() - no timing available for clear PC.
pcgh.c	1aff	PCn restore - timed out - PC restoral no longer in progress.
iowque.c	1b00	Push queue - command queue full.
em_iowque.c	1b01	Push queue - push queue failure.
em_iowque.c	1b02	Push queue - failure to queue request due to invalid request, queue corruption, or resource problem.
em_iowque.c	1b03	Push queue - failure to queue request for unknown reason.
updflsh.c	1b0a	PCn Flash programming - pcclear2() failed to free use of pumpcode / flash file.
updflsh.c	1b0b	PCn Flash programming - pcclear2() failed to cancel request for pumpcode / flash file.
updflsh.c	1b0c	PCn Flash programming - pccomp2() failed to assign dma slot.
updflsh.c	1b0d	PCn Flash programming - pccomp2() command queue failure - PC pump (no erase of flash file).
updflsh.c	1b0e	PCn Flash programming - pccomp2() command queue failure - PC pump (erase of flash file).
updflsh.c	1b0f	PCn Flash programming - pccomp2() command queue failure - PC pump (administration flash file).
updflsh.c	1b10	PCn Flash programming - pccomp2() failed to get page table address.
updflsh.c	1b11	PCn Flash programming - pccomp2() failed to read flash file.
updflsh.c	1b12	PCn Flash programming - pccomp2() abort PC pump - PC already being pumped.
updflsh.c	1b13	PCn Flash programming - pccomp2() abort PC pump - wrong sequence number.
updflsh.c	1b14	PCn Flash programming - pccomp2() could not get PC UCB.

FUNCTION	CODE	COMMENT *(continued)*
updflsh.c	1b15	PCn Flash programming - pcclear2() failed to cancel request for pumpcode/flash file.
updflsh.c	1b16	PCn Flash programming - pccomp2() failed to read flash file.
updflsh.c	1b17	PCn Flash programming - pccomp2() failed to read all of the flash files.
updflsh.c	1b18	PCn Flash programming - pccomp2() retrieved flash file with incorrect file size.
updflsh.c	1b19	PCn Flash programming - get_flsh_files() - invalid flash file index.
updflsh.c	1b20	PCn Flash programming - pccomp2() - no timing available for PC pump (no erase of flash file).
updflsh.c	1b21	PCn Flash programming - pccomp2() - no timing available for PC pump (erase of flash file).
updflsh.c	1b22	PCn Flash programming - pccomp2() - no timing available for PC pump (administration flash file).
rstcont.c	1c01	Cannot convert iorid to ucblp.
rstcont.c	1c02	Cannot convert iorid to ucblp.
updflsh.c	1c0a	PCn Flash programming - prgflsh2() completion code failure - mark PC community in service.
updflsh.c	1c0b	PCn Flash programming - prgflsh2() completion code failure - clear PC.
updflsh.c	1c0c	PCn Flash programming - prgflsh2() completion code failure - reset PC isolate flip-flop and mark in service.
updflsh.c	1c0d	PCn Flash programming - prgflsh2() - PC not plugged in.
updflsh.c	1c0e	PCn Flash programming - prgflsh2() completion code failure - read PC scan back.
updflsh.c	1c0f	PCn Flash programming - prgflsh2() completion code failure - pump PC code.
updflsh.c	1c10	PCn Flash programming - prgflsh2() completion code failure - read PC code version.
updflsh.c	1c11	PCn Flash programming - prgflsh2() completion code failure - execute PC code.
updflsh.c	1c12	PCn Flash programming - prgflsh2() completion code failure - pump PC code.
updflsh.c	1c13	PCn Flash programming - prgflsh2() completion code failure - clear PC.

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FUNCTION	CODE	COMMENT *(continued)*
updflsh.c	1c14	PCn Flash programming - prgflsh2() - invalid sequence number.
updflsh.c	1c15	PCn Flash programming - pcflsfail() failed to get a message buffer.
updflsh.c	1c20	PCn Flash programming - prgflsh2() - no timing available for clear PC.
updflsh.c	1c21	PCn Flash programming - prgflsh2() - no timing available for clear PC.
updflsh.c	1c30	PCn Flash programming - prgflsh2() unrecognized response - mark PC community in service.
updflsh.c	1c31	PCn Flash programming - prgflsh2() unrecognized response - clear PC.
updflsh.c	1c32	PCn Flash programming - prgflsh2() unrecognized response - reset PC isolate flip-flop and mark in service.
updflsh.c	1c33	PCn Flash programming - prgflsh2() unrecognized response - read PC scan back.
updflsh.c	1c34	PCn Flash programming - prgflsh2() unrecognized response - pump PC code.
updflsh.c	1c35	PCn Flash programming - prgflsh2() unrecognized response - read PC code version.
updflsh.c	1c36	PCn Flash programming - prgflsh2() unrecognized response - execute PC code.
updflsh.c	1c37	PCn Flash programming - prgflsh2() unrecognized response - pump PC code.
updflsh.c	1c38	PCn Flash programming - prgflsh2() unrecognized response - clear PC.
rstcont.c	1d00	Cannot complete common IODRV mem initialization.
rstcont.c	1d01	Unable to convert IOP RID to UCB.
rstcont.c	1d02	Unable to release data base record.
rstcont.c	1d03	Unable to obtain list of PCs.
rstcont.c	1d04	Unable to convert PC RID to UCB.
rstcont.c	1d05	Unable to release data base record.
rstcont.c	1d06	Unable to obtain list of PCSDs.
rstcont.c	1d07	Unable to convert PCSD RID to UCB.
rstcont.c	1d08	Unable to release data base record.
rstcont.c	1d09	Unable to obtain list of PCSDs.
rstcont.c	1d0a	Unable to convert PCSD RID to UCB.
rstcont.c	1d0b	Unable to release data base record.

FUNCTION	CODE	COMMENT *(continued)*
rstcont.c	1d0c	Bad device level.
rstcont.c	1d20	setboot() got FAIL from downucb().
rstcont.c	1d21	setboot() got FAIL from relrec().
rstcont.c	1d22	setboot() cannot convert RID to UCB.
servr1.c	1d60	Unknown unit level.
servr1.c	1d61	No words to zero.
iowque.c	1e00	Send pio - cannot read BIC status.
iowque.c	1e01	Send pio - failed to read BIC status.
iowque.c	1e02	Send pio - BIC status error or cmd flag stuck.
iowque.c	1e03	Send pio - failed to send programmed I/O instr.
outmsg.c	1f00	Cannot convert iorid to ucblp.
iotime.c	2000	Cannot convert iorid to ucblp.
rstcont.c	2100	Cannot convert iorid to ucblp.
rstcont.c	2101	lkhand1() returned fail.
rstcont.c	2200	downucbs function returned fail.
rstcont.c	2300	Bad handler id.
rstcont.c	2301	restsd() cannot convert RID to UCB.
iolkh.c	2400	getucbl() failed to get IOP UCB.
rmvcont.c	2401	downucbs function returned fail.
rmvcont.c	2402	Cannot convert a rid to a UCB record.
rmvcont.c	2403	rqstrmv() returned C_FAIL or unknown response.
iolkh.c	2410	getcomsupv - no free comsupvinfo structure.
servr1.c	2500	Cannot convert iorid to ucblp.
servr1.c	2501	downucbs function returned fail.
servr1.c	2502	downucbs function returned fail.
servr1.c	2503	Cannot convert iorid to ucblp.
servr1.c	2504	downucbs function returned fail.
servr1.c	2505	Cannot convert PCSD RID to UCB record.
servr1.c	2506	haltact() cannot convert RID to UCB.
servr1.c	2600	Cannot convert a rid to a UCB record.
servr1.c	2601	downucbs function returned fail.
servr1.c	2602	Cannot convert iorid to ucblp.
outmsg.c	2700	Cannot convert iorid to ucblp.
outmsg.c	2800	Cannot convert iorid to ucblp.
rmvcont.c	2900	downucbs function returned fail.
rmvcont.c	2901	Cannot convert iorid to ucblp.
rmvcont.c	2a00	downucbs function returned fail.
rmvcont.c	2a01	Unable to convert PC RID to UCB.
rmvcont.c	2b00	Cannot convert iorid to ucblp.
rmvcont.c	2b01	rmv_half() encountered invalid unit level.
rmvcont.c	2c00	Cannot convert iorid to ucblp.

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FUNCTION	CODE	COMMENT *(continued)*
crmvcont.c	2c03	Cannot convert iorid to ucblp.
crmvcont.c	2c04	downucbs() function returned FAIL.
crmvcont.c	2c05	Cannot convert iorid to ucblp.
crmvcont.c	2c06	downucbs() function returned FAIL.
crmvcont.c	2c07	Cannot convert iorid to ucblp.
crmvcont.c	2c08	Cannot convert iorid to ucblp.
crmvcont.c	2c09	Cannot convert iorid to ucblp.
crmvcont.c	2c0a	Cannot convert iorid to ucblp.
crmvcont.c	2c0b	downucbs() function returned FAIL.
crmvcont.c	2c0c	Cannot convert iorid to ucblp.
crmvcont.c	2c0d	downucbs() function returned FAIL.
crmvcont.c	2c0e	Cannot convert iorid to ucblp.
crmvcont.c	2c0f	downucbs() function returned FAIL.
crmvcont.c	2c10	Cannot convert iorid to ucblp.
crmvcont.c	2c11	PCn remove - no timing available.
crmvcont.c	2c12	Cannot get PC UCB.
crmvcont.c	2c13	Cannot get PIC UCB.
crmvcont.c	2c14	Cannot get PC UCB.
crmvcont.c	2c15	Function deltrg1() returned FAIL.
outmsg.c	2c20	Conditional remove - cannot get timing.
outmsg.c	2c21	Conditional remove - cannot get timing.
rmvcont.c	2c30	Function downucbs() returned FAIL.
rmvcont.c	2c31	Function rqstrmv() returned C_FAIL or unknown response.
rmvcont.c	2c32	Function get_llarec() returned FAIL from UCB access.
outmsg.c	2d00	Cannot convert iorid to ucblp.
rstcont.c	2e00	Memory initialization failure.
rstcont.c	2e01	Cannot convert iorid to ucblp.
rstcont.c	2e02	getucb1() failed to get IOP UCB.
rstcont.c	2f00	downucbs function returned fail.
fault.c	3000	FLT_SCRIT fltcode unexpected.
fault.c	3001	FLT_SINIT fault.
fault.c	3002	Software fault. Format of additional string information is defined as: FLTC X'*a* PA X'*b*, *a* = Reference IOP Appendix E, IOP-APPE, for fault code. b = Program address.
fault.c	3003	FLT_SOFTSW fltcode unexpected.
fault.c	3004	Strange fault code.
fault.c	3005	IODRV owns an old non-queued audit error message.

FUNCTION	CODE	COMMENT *(continued)*
fault.c	3006	Illegal OST.
outmsg.c	3101	Unable to convert unit RID to UCB.
wkspc.c	3110	Unable to convert unit RID to UCB.
wkspc.c	3120	bgrowucmp() got FAIL from isfree().
wkspc.c	3121	bgrowucm() got FAIL from isfree().
wkspc.c	3122	dyngrowump() got FAIL from isfree().
wkspc.c	3123	Failed to release UCB reword.
wkspc.c	3124	Cannot get size requirement for PCSD boot growth.
wkspc.c	3125	Cannot get size requirement for PC boot growth.
wkspc.c	3126	Cannot update incore UCB for boot growth failure.
wkspc.c	3127	Cannot update incore UCB for delayed growth failure.
wkspc.c	3130	Cannot update incore UCB for growth failure.
ioimf.c	3160	Unable to obtain a message buffer while attempting to add a segment.
ioimf.c	3161	Unable to activate a timer while attempting to add a segment.
ioimf.c	3162	Unable to obtain a message buffer while attempting to grow a segment.
ioimf.c	3163	Unable to activate a timer while attempting to grow a segment.
ioimf.c	3164	Unable to obtain a message buffer while attempting to remove a segment.
ioimf.c	3165	Invalid message type.
ioimf.c	3166	Unable to queue the message.
ioimf.c	3170	Add message acknowledgement received but no timer was set.
ioimf.c	3171	Grow message acknowledgement received but no timer was set.
ioimf.c	3172	Invalid message type.
ioimf.c	3173	Pointer contained in ms_ident is not in I/O driver's address space.
iointr.c	3174	Pointer contained in ms_ident is not in I/O driver's address space.
ioimf.c	3180	Either a message was lost or an attempt failed, causing a retry to have to be made.
ioimf.c	3181	Unable to activate the settle-down timer.
ioimf.c	3182	The retry counter has been exceeded.

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FUNCTION	CODE	COMMENT *(continued)*
ioimf.c	3190	Invalid message type.
ioimf.c	3191	Unable to set initialization timer in imfinit.
ioimf.c	3192	ioimftout cannot find MCT.
wkspc.c	31c0	Bad unit level.
wkspc.c	31c1	Cannot get size requirement for PC growth.
wkspc.c	31c2	Cannot get size requirement for PCSD growth.
wkspc.c	31e0	Unable to attach to interrupts for IOPn.
wkspc.c	31e1	Unable to get page table address for IOPn.
wkspc.c	31e2	Unable to initialize DMAC RAM for IOPn.
wkspc.c	31e3	Unable to obtain IOPn option block.
wkspc.c	31e4	Failed to attach to interrupt - IOP not restored.
fault1.c	3200	DMA restart - cannot abort job.
fault1.c	3201	Failed to enable interrupts for IOPn.
fault1.c	3202	Failed to initialize DMAC ram.
fault1.c	3203	DMA restart - cannot clear BIC.
fault1.c	3204	DMA restart - cannot set interface enable.
fault1.c	3300	Cannot convert iorid to ucblp.
fault1.c	3401	Reboot IOP - pio lost.
fault.c	3500	Cannot convert iorid to ucblp.
fault.c	3501	pio has been lost for a unit.
fault.c	3503	IODRV took message buffer audit fault.
fault.c	3600	Cannot convert iorid to ucblp.
fault.c	3601	PICn or PCn implicated.
fault.c	3602	PICn implicated.
fault.c	3603	PICn affected but not implicated.
fault.c	3604	High error cnt, but must limp along.
fault.c	3605	Fault message ignored.
fault.c	3606	High error cnt, remove.
fault.c	3607	PICn affected but not implicated.
fault.c	3608	High error count, but must limp along.
fault.c	3609	Too many faults.
fault.c	360a	No timer entry for short limp mode delay.
fault.c	360b	No timer entry for long limp mode delay.
fault.c	360c	Function `rptierr()` returned C_FAIL or unknown response.
fault.c	360d	Message buffer audit fault.
fault1.c	3703	NADRD, NPICP, or NDREP fault code - unit not identified.
iolla.c	3801	Unable to get UCB record (IORID call Phase I).
iolla.c	3802	Unable to get MDCT record (IORID call Phase II).

FUNCTION	CODE	COMMENT *(continued)*
iolla.c	3803	Invalid input option (not CVTRID or CVTLDIN).
iolla.c	3806	MDCT rid not available.
iolla.c	3807	Cannot convert a rid to a MDCT record.
iolla.c	3808	MDCT does not contain at least one UCB rid.
iolla.c	3900	`getsucb1()` cannot get UCB.
iolla.c	3901	Bad RID passed as argument to `getsucb1()`.
iolla.c	3902	Invalid record id.
iolla.c	3904	Failed to get ucbl record.
iolla.c	3b02	Cannot convert rid to a MDCT record.
iolla.c	3c02	Cannot release a record.
pcaudit.c	3e00	downucbs function returned fail.
pcaudit.c	3e01	Cannot convert iorid to ucblp.
pcaudit.c	3e02	SCSDC audit failure - restart SCSDC.
pcaudit.c	3e03	pushq1 function returned fail.
pcaudit.c	3e04	pushq1 function returned fail for SCSDC audit retry.
pcaudit.c	3e05	PCn audit failure - restart PCn.
iolla.c	3f00	Invalid record ID.
iolla.c	3f01	Unable to convert RID to a specified record.
inhadm.c	4600	Arguments in inhibit admin message unknown.
MT HANDLER		
mterrhand.c	4000	MT is in an improper state for restore / restart.
mterrhand.c	4001	Invalid type of restore / restart.
mterrhand.c	4002	Failed to restore; scratch area is not allocated.
mterrhand.c	4004	Cannot delete a DMA slot while processing a restoral.
mterrhand.c	4005	Cannot get PC UCB during PC restoral.
mterrhand.c	4006	No scratch area - restoral failed.
mterrhand.c	4007	Bad major state for restoral of device.
mterrhand.c	4008	Bad restore type.
mterrhand.c	4009	Cannot get recovery timer.
mterrhand.c	4100	Cannot delete DMA slot while completing manual remove.
mterrhand.c	4200	Cannot delete remove timer while processing half remove.
mterrhand.c	4201	Cannot get remove timer.
mterrhand.c	4202	Cannot delete DMA slot while processing half remove.
mterrhand.c	4203	Bad remove type.
mterrhand.c	4300	Cannot delete remove timer from `mtrmvdly()`.
pmsgmt3.c	4302	Improper message type.
pmsgmt3.c	4400	Failure due to MT not open.

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FUNCTION	CODE	COMMENT *(continued)*
pmsgmt3.c	4401	MT already open; not allowed to open to second user.
pmsgmt3.c	4402	Mode must be read or write.
pmsgmt3.c	4500	Record size is > 2048 bytes.
pmsgmt3.c	4501	Buffer must start on a word boundary in read mode.
pmsgmt3.c	4502	Offset into buffer must be on a word boundary in read mode.
pmsgmt3.c	4503	Writes must be sequential.
mtproc.c	4600	DMA assignment failure.
mtproc.c	4601	PC Q area is full.
mtproc.c	4602	Pushq failure.
mtproc.c	4603	Record size > 2048 (because of alignment).
pmsgmt3.c	4700	Attempt to open a device which is not closed.
pmsgmt3.c	4701	Attempt to read a device not open for reading.
pmsgmt3.c	4702	Attempt to write a device not open for writing.
pmsgmt3.c	4703	Bad message type detected by `pmsgmt3()`.
pmsgmt3.c	4704	Major state unit or handler state not suitable for accepting work.
mtproc.c	4800	Bad mode for opening a tape device.
mtproc.c	4801	Bad parameters for a read request.
mtproc.c	4802	Bad parameters for a write request.
mtproc.c	4803	Attempt to do non-sequential write.
mtproc.c	4804	Inconsistent internal state for closing a tape device.
mtproc.c	4805	Bad message type detected by `mtgetwk()`.
mtproc.c	4900	`pushq1()` returned fail when sending an open command.
mtproc.c	4901	`pushq1()` returned fail when sending a read / write command.
mtproc.c	4902	`pushq1()` returned fail when sending a close command.
mtproc.c	4903	`pushq1()` returned fail when sending a seek command.
mtproc.c	4904	`pushq1()` returned fail when sending a rewind command.
mtproc.c	4905	PC queue counter was not zero during open.
mtproc.c	4906	Cannot send rewind command, PC queue full.
mtproc.c	4907	Cannot send close command, PC queue full.
mtproc.c	4908	Bad opcode in current job structure.

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FUNCTION	CODE	COMMENT *(continued)*
mtproc.c	4909	Failed to assign DMA slot.
mtproc.c	490a	Hit EOF when trying to SEEK.
mtproc.c	490b	Detected fatal error when trying to SEEK.
mtproc.c	490c	Detected other errors when trying to SEEK.
prspmt3.c	4a00	Failed to delete DMA slot when current job completed.
prspmt3.c	4a01	Failed to delete DMA slot when received unexpected response.
prspmt3.c	4a02	Failed to delete DMA slot when received response for non active unit.
prspmt3.c	4a03	opcode in response does not match what was sent.
prspmt3.c	4a04	Obsolete response received and ignored.
prspmt3.c	4b00	Cannot delete DMA slot when handling an error in response.
prspmt3.c	4b01	Job rejected illegal command.
prspmt3.c	4b02	Job rejected illegal command sequence.
prspmt3.c	4b03	Job aborted nonrecoverable errors, e.g., bad spot on tape.
prspmt3.c	4b04	Generic part of response invalid.
prspmt3.c	4b05	Tape unit write protected.
prspmt3.c	4b06	End of physical tape.
prspmt3.c	4b07	Subdevice off-line.
prspmt3.c	4b08	Time out error - PC did not hear from tape unit in time.
prspmt3.c	4b09	Reached end of file during read.
prspmt3.c	4b0a	User part of response has unidentified error.
prspmt3.c	4b0b	Generic part of response has unidentified error.
prspmt3.c	4b0c	Unknown handler state when handling response.
prspmt3.c	4b0d	Cannot get error handling dead man timer.
prspmt3.c	4b0e	Cannot delete DMA slot from `procerrs()`.
prspmt3.c	4b0f	Cannot delete DMA slot from `mterrto()`.
prspmt3.c	4b10	PC timed out returning all pending responses following an error.
prspmt3.c	5000	Response opcode error.
prspmt3.c	5001	Response comp code default.
prspmt3.c	5102	Block contained more bytes than the number of bytes requested by read; the excess bytes are lost.
prspmt3.c	5200	EOF reached during read or seek.
prspmt3.c	5201	Tape unit write protected.
prspmt3.c	5202	End of physical tape.
prspmt3.c	5203	Subdevice off-line.

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FUNCTION	CODE	COMMENT *(continued)*
`prspmt3.c`	`5204`	PC time-out error.
`prspmt3.c`	`5300`	Job aborted non-recover errors.
`prspmt3.c`	`5301`	Job rejected illegal command.
`prspmt3.c`	`5302`	Job rejected illegal command context.
`prspmt3.c`	`5304`	MT was not active when PC response was received.
TTY HANDLER		
`prspmt3.c`	`5400`	Retried four times with no success; return with failure.
`pmsgci3.c`	`6000`	No active subdevice for supervisor.
`pmsgci3.c`	`6001`	Unexpected acknowledge message received. Format of additional string information is defined as: *a a* = channel flags (hex).
`pmsgci3.c`	`6002`	Process manager cannot create `/prc/unix`. Format of additional string information is defined as: *a b a* = message status (hex). *b* = channel id (hex).
`pmsgci3.c`	`6003`	Unknown process ID for pcreate message.
`pmsgci3.c`	`6004`	Unknown message type. Format of additional string information is defined as: *a b a* = message type (hex). *b* = ms_from field of message (hex).
`pmsgci3.c`	`6005`	Unable to get ciopt record.
`pmsgci3.c`	`6006`	Unable to get active UCB switchable device.
`pmsgci3.c`	`6007`	Non-switchable device not in proper state for close. Format of additional string information is defined as: *a a* = state of non-switchable device (hex).
`pmsgci3.c`	`6008`	Could not find active switchable device for cancel.
`pmsgci3.c`	`6009`	Non-switchable device not in proper state for cancel. Format of additional string information is defined as: *a a* = state of non-switchable device (hex).
`prmvci3.c`	`6010`	Error on subdevice conditional remove.
`prmvci3.c`	`6011`	Unable to initiate remove timing.
`prmvci3.c`	`6012`	Unknown remove type. Format of additional string information is defined as: [*a*] *a* = remove request type (hex).
`prmvci3.c`	`6013`	Unable to retrieve mdct for remove switchable unit.

FUNCTION	CODE	COMMENT *(continued)*
prmvci3.c	6015	prmvci3 - alocmsg failed in cihandqs.
prmvci3.c	6016	prmvci3 - could not get a timer for cifoswitch.
prspci3.c	6020	PC command not in maintenance queue.
prspci3.c	6021	Unknown opcode in PC response. Format of additional string information is defined as: *a b a* = response word 1 (hex). *b* = response word 2 (hex).
prspci3.c	6022	Unknown PC asynchronous report type. Format of additional string information is defined as: *a b a* = response word 1 (hex). *b* = response word 2 (hex).
prspci3.c	6023	Connection report for unit not in standby state. Format of additional string information is defined as: *a a* = unit state (hex).
prspci3.c	6024	Unrecognized async error report type.
prspci3.c	6025	Unable to get header update timing index.
prspci3.c	6026	Unrecognized async read priority. Format of additional string information is defined as: *a a* = priority value number (hex).
prspci3.c	6027	Failed to get connection wait timer. Format of additional string information is defined as: *a b a* = portswitch status (hex). *b* = number of portswitch failures (hex).
prspci3.c	6028	Device switched to OOS unit (HIT).
prspci3.c	6029	Device not switched; could not get a mate on disconnect. Format of additional string information is defined as: *a b a* = portswitch status (hex). *b* = number of portswitch failures (hex).
prspci3.c	602a	Could not get a mate; device restored. Format of additional string information is defined as: *a b a* = portswitch status (hex). *b* = number of portswitch failures (hex).
prspci3.c	602b	Controller reported excessive BREAKs on subdevice. Format of additional string information is defined as: *a b a* = response word 1 (hex) *b* = response word 2 (hex) If *b* = 31000000 then high priority input. If *b* = 32000000 then base (low) priority input.
prspci3.c	602c	NULL message pointer returned from PCBREAK signal.
ptrpci3.c	6030	Unknown ost code. Format of additional string information is defined as: *a a* = OST type (hex).
prstci3.c	603a	Restore failure during restart.
prstci3.c	603b	Invalid restore type.

FUNCTION	CODE	COMMENT *(continued)*
prstci3.c	603c	Unable to get logical date pointer.
prstci3.c	603d	Unable to retrieve ttopts or ciopts.
prstci3.c	603e	Unable to retrieve mdct.
prstci3.c	603f	prstci3 - alocmsg failed in `cihandqs()`.
ciexec.c	6040	Unknown maintenance opcode. Format of additional string information is defined as: *a b a* = maintenance command opcode (hex). *b* = option record pointer (hex).
ciexec.c	6041	Unable to find page table address.
ciexec.c	6042	Could not get a timer to reschedule I/O during port switch.
ciexec.c	6043	Could not get a timer to still hold I/O.
ciexec.c	6044	No active device to process held I/O.
ciexec.c	6045	Failed to get mate; no active device to process held I/O.
ciexec.c	6046	Could not get scratch area for any device held I/O.
ciexec.c	6048	Unable to add maintenance queue. Format of additional string information is defined as: *a b* [*b*] [*b*] [*b*] [*b*] *a* = command to be added *b* = commands on the maintenance queue (up to 5 of these).
ciexec.c	6050	Fail to push PC command queue. Format of additional string information is defined as: *a b c a* = command word 1 (hex). *b* = command word 2 (hex). *c* = message pointer (hex).
ciexec.c	6051	Unrecognized PC command code. Format of additional string information is defined as: *a a* = pc opcode.
cipcreat.c	6060	Unable to be created by non-active subdevice.
cipcreat.c	6061	Number of pcreate attempts >THRESHOLD.
cisupv.c	6062	Index bad when pcreate timer fires. Format of additional string information is defined as: *a a* = channel id (hex).
cisupv.c	6063	Unable to allocate msg buffer. Format of additional string information is defined as: *a a* = channel id (hex).
cisupv.c	6064	Fail to queuem supervisor pcreate msg. Format of additional string information is defined as: *a a* = channel id (hex).
cipcreat.c	6070	Unable to send signal in high priority.

FUNCTION	CODE	COMMENT *(continued)*
cipcreat.c	6071	Unable to send signal for unclear priority.
ciswitch.c	6080	Switching attempts >THRESHOLD. Format of additional string information is defined as: *a a* = number of portswitch failures (hex).
ciswitch.c	6081	timreq1 failure on port switch DTR timing. Format of additional string information is defined as: *a b a* = portswitch status (hex). *b* = number of portswitch failures (hex).
ciswitch.c	6082	timreq1 failure on port switch DTR on timing. Format of additional string information is defined as: *a b a* = portswitch status (hex). *b* = number of portswitch failures (hex).
ciswitch.c	6083	No standby mate device for port switch.
ciswitch.c	6084	Forced switch attempts >THRESHOLD. Format of additional string information is defined as: *a a* = number of portswitch failures (hex).
ciswitch.c	6085	`timreq1()` failure on forced port switch. Format of additional string information is defined as: *a b a* = portswitch status (hex). *b* = number of portswitch failures (hex).
ciswitch.c	6086	Could not get UCB for forced switch cifoswitch.
ciswitch.c	6087	Device in wrong state to switch.
ciswitch.c	6088	Device in wrong state and so is mate to do forced switch. Format of additional string information defined as: *a b a* = portswitch status (hex). *b* = number of portswitch failures (hex).
ciswitch.c	6089	Could not get a timer to wait for connection forced switch. Format of additional string information is defined as: *a b a* = portswitch status (hex). *b* = number of portswitch failures (hex).
ciswitch.c	608a	Could not get UCB ciswfon.
ciswitch.c	608b	Could not switch; device not in good state. Format of additional string information is defined as: *a b a* = portswitch status (hex). *b* = number of portswitch failures (hex).
ciswitch.c	608c	Switch delay timer fired; other device not in a good state to switch.
ciswitch.c	608d	Portswitch fail print turned off. Format of additional string information is defined as: `SWITCH FAIL PRINT OFF`

FUNCTION	CODE	COMMENT *(continued)*
prstci3.c	60a0	Restore-timer fired. Format of additional string information is defined as: *a b c a* = command word 1 (hex). *b* = command word 2 (hex). *c* = command opcode (hex).
prmvci3.c	60b0	Cannot ci_opt record.
prmvci3.c	60b1	Cannot get MDCT record.
prmvci3.c	60b2	Invalid type of flshsrch.
prmvci3.c	60b8	Old Message should not be around. Format of additional string information is defined as: X'*a* X'*b* *a* = message pointer. *b* = message type.
prmvci3.c	60b9	Found write message on audit. Format of additional string information is defined as: X'*a* X'*b* *a* = message pointer. *b* = ms_from field of message (hex).
prmvci3.c	60ba	Message for audit not found. Format of additional string information is defined as: X'*a* X'*b a* = message pointer. *b* = io segment id.
prmvci3.c	60bb	Unknown message typed owned. Format of additional string information is defined as: X'*a* X'*b* *a* = message pointer. *b* = message type.
prmvci3.c	60bc	Message audit for read message. Format of additional string information is defined as: X'*a* X'*b* *a* = message pointer. *b* = ms_from field of message (hex).
cisupv.c	60c0	Process manager fails to respond to pcreate message. Format of additional string information is defined as: *a b c a* = device status (hex). *b* = channel id (hex). *c* = channel id flags (hex).
cisupv.c	60c1	Unable to get ucbrec by get_llarec call.
ciexec.c	60d0	cilogical pointer NULL.
ciexec.c	60d1	Could not get any device scratch area for switchable device.
ciexec.c	60d2	ci scratch pointer NULL.
ciqueue.c	60e0	Put queue type error. Format of additional string information is defined as: *a a* = CIH queue type (decimal).
ciqueue.c	60e1	Get queue type error. Format of additional string information is defined as: *a a* = CIH queue type (decimal).
ciqueue.c	60e2	Delete queue type error. Format of additional string information is defined as: *a a* = CIH queue type (decimal).

FUNCTION	CODE	COMMENT *(continued)*
ciqueue.c	60e3	Dump queue type error. Format of additional string information is defined as: *a a* = channel flags (hex).
ciqueue.c	60e4	Unknown qtype type - ciniphy. Format of additional string information is defined as: *a a* = CIH queue type (hex).
ciqueue.c	60e5	Queue type error - cisrch. Format of additional string information is defined as: *a a* = CIH queue type (decimal).
ciqueue.c	60e6	Queue type error - cisrchp. Format of additional string information is defined as: *a a* = CIH queue type (decimal).
ciqueue.c	60e7	Queue type error - ciinitq. Format of additional string information is defined as: *a a* = CIH queue type (decimal).
ciqueue.c	60e8	Queue damaged - cigetq. Format of additional string information is defined as: `CIH QUEUE DAMAGED` *a a* = CIH queue type (decimal).
prstci3.c	6201	Invalid type of restart / restore.
prstci3.c	6202	`pushq1()` returned a failure.
tycfrmt.c	6301	getopt failure.
tycfrmt.c	6302	get_llarec (ttopt_rec) failure.
tyrdwrt.c	6401	getopt failure.
tyrdwrt.c	6402	Read job failed after failures to access DMA slot.
tyrdwrt.c	6403	Write job failed after failures to access DMA slot.
prmvci3.c	6901	pushq1 returned failure.
ptrpci3.c	6a01	LDIN partition invalid for SETTY.
ptrpci3.c	6a02	LDIN partition invalid for GETTY.
ptrpci3.c	6a07	Iomap for SETTRAP OST failed.
ptrpci3.c	6a08	Iomap for GETTRAP OST failed.
ptrpci3.c	6a09	OST code unknown to handler.
ptrpaux.c	6b01	getopt failure in `tty_to_ci()`.
ptrpaux.c	6b02	get_llarec (ttopt_rec) failure in `tty_to_ci()`.
ptrpaux.c	6b03	getopt failure in `ci_to_tty()`.
ptrpaux.c	6b04	get_llarec (ttopt_rec) failure in `ci_to_tty()`.
prspci3.c	6d01	PCSD response opcode not recognized (Base priority).
prspci3.c	6d02	PCSD response opcode not recognized (High priority read).
prspci3.c	6d03	PCSD response opcode not recognized (High priority write).
prspci3.c	6d04	PCSD cmd-destination field not recognized.

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FUNCTION	CODE	COMMENT *(continued)*
prspci3.c	6d05	DMA slot removal failed after 'transmit long' PCSD.
prspci3.c	6d06	DMA slot removal failed after 'set options' PCSD.
prspci3.c	6d07	DMA slot removal failed after high priority 'transmit long' PCSD.
prspci3.c	6d08	DMA slot removal failed after 'rcv long' response. (Base priority).
prspci3.c	6d09	DMA slot removal failed after 'rcv long' response. (High priority).
tyrwrite.c	6e01	Received write-response but WCQ was empty.
tyrwrite.c	6e02	Fixed field in response different from that in the command.
tyrwrite.c	6e03	Unknown response case.
tyrshrt.c	6f01	Received rcv-short response but RCQ was empty.
tyrshrt.c	6f02	Fixed field in response different from that in the command.
tyrlong.c	7001	Received rcv-long response but RCQ was empty.
tyrlong.c	7002	DMA slot removal failed after rcv-long response.
tyrlong.c	7003	Read response received but RCQ was empty.
tyrlong.c	7005	Read response received but RCQ was empty.
tyrlong.c	7007	Read response received but RCQ was empty.
tysdrst.c	7101	SD_REST response received, but no command sent.
tysdrst.c	7102	User-completion-code error (Boot Restore).
tyrasync.c	7201	Connection reported but TTY not restored.
tyrasync.c	7202	Async report not recognized.
tyrasync.c	7203	Warning: connection reported, but supervisor still up.
tyrasync.c	7204	getmdct failure.
tyrasync.c	7205	getopt failure.
tyrasync.c	7206	get_llarec (ttopt_rec) failure.
tyrasync.c	7207	get-llarec (cdopt_rec) failure.
tymsack.c	7301	No MSACK message is expected.
tymsack.c	7302	max number of P_CREAT attempts.
tymsack.c	7303	pushq1 failure.
tyswitch.c	7401	Wrong index passed to time-out routine.
tyswitch.c	7402	Unable to get mdct from data base.
tyswitch.c	7403	Unable to send command to PC via pushq1.
tyswitch.c	7404	Invalid combination of t_status flags.

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FUNCTION	CODE	COMMENT *(continued)*
tyswitch.c	7405	Unable to return to controlling PC after switchover failure.
tyswitch.c	7406	Both switchable subdevices are in the ACTIVE state, or unable to return to 'at rest' PC after switchover failure.
tyswitch.c	7407	Unable to handle S/D msg due to earlier 7402 error.
tyswitch.c	7408	Invalid cmd_type in SW msg.
tyswitch.c	7409	Invalid msg sub-type in a received IORID ms_type.
tyswitch.c	740a	Unable to send cmd to PC via call to `pushg1()`.
tyswitch.c	740c	Unable to request timer via call to `timereq1()`.
sttyproc.c	7a04	Unable to send cmd to PC because PC queues are full.
tytime.c	7501	`tyrstsupv()` - wrong timeout index.
tytime.c	7502	`tyrstsupv()` - no previous failure in P_CREAT attempt.
tytime.c	7503	`tyrestto()` - no pending restoral.
tytime.c	7504	`tyrestto()` - wrong timeout index.
tytime.c	7514	`tyholdto()` - wrong timeout index.
tytime.c	7521	`tyoosto()` - wrong timeout index.
tytime.c	7522	`tyoosto()` - SD_REMOVE request timed out.
tystrtsupv.c	7601	Max number of P_CREAT attempts.
tystrtsupv.c	7602	getmdct failure.
tyrsderr.c	7701	Intercharacter timeout detected.
tyrsderr.c	7702	Acknowledgement timeout detected.
tyrsderr.c	7703	Suspend-output timeout detected.
tyrsderr.c	7704	Line printer error detected.
tyrsderr.c	7706	Async report not recognized.
tyrcntrl.c	7801	Received disconnect response but no cmd sent.
tyrcntrl.c	7802	TY_CNTRL response not recognized.
tycmdproc.c	7902	Error in formatting PCSD command.
tycmdproc.c	7903	pushq1 returned failure.
tycmdproc.c	7904	DMA slot removal failed after PCSD command formatting error.
tycmdproc.c	7905	DMA slot removal failed after pushq1 failure.
sttyproc.c	7a01	DMA slot assignment failed.
sttyproc.c	7a02	`pushq1()` returned failure.
sttyproc.c	7a03	`getpta()` returned failure.

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FUNCTION	CODE	COMMENT *(continued)*
`tyrslnk.c`	`7f01`	Received rcv-short-linked response, but RCQ was empty.
`tyrslnk.c`	`7f02`	Fixed field in response different from that in the command.
`tyrslnk.c`	`7f03`	DMA slot removal failed after rcv-short-linked response.
MAINT HANDLER		
`mainthan.c`	`8000`	ucbptr is zero.
`mainthan.c`	`8001`	Unit is not in correct state for diagnosis.
`mainthan.c`	`8002`	u_stat is in undefined state.
`mainthan.c`	`8003`	ucbptr is zero.
`mainthan.c`	`8004`	ucbptr is different than what came with the iopen.
`mainthan.c`	`8005`	Failed iolock.
`mainthan.c`	`8006`	Error on asndma1 function.
`mainthan.c`	`8007`	Handler is not in DMAEXP state.
`mainthan.c`	`8008`	Error on asndma1 function.
`mainthan.c`	`8009`	Error on pushing command into queue.
`mainthan.c`	`800a`	Error on timreq1 function.
`mainthan.c`	`800b`	ucbptr is zero.
`mainthan.c`	`800c`	ucbptr is different than what came with the iopen.
`mainthan.c`	`800d`	Unrecognized message from iop driver.
`mainthan.c`	`800e`	Function `uniolock()` returned FAIL during IOCLOSE processing.
`mainthan.c`	`800f`	Function `uniolock()` returned FAIL after `asndma1()` failure.
`maintfun.c`	`8100`	Detach from interrupts must be babbling.
`maintfun.c`	`8101`	Failed to detach from interrupts.
`maintfun.c`	`8102`	Byte cnt returned from IOP is not correct.
`iomaint.c`	`8103`	The call to `getpta()` failed.
`iomaint.c`	`8104`	The `asndma21()` function failed to assign DMA slot number.
`iomaint.c`	`8105`	The `asndma21()` function failed to assign DMA slot number.
`iomaint.c`	`8106`	The call to `getpta()` failed.
`iomaint.c`	`8107`	The `sdc32b()` function call failed.
`iomaint.c`	`8108`	The `timreq()` function call failed.
`iomaint.c`	`8109`	The `cfread()` function was unsuccessful in reading the pumpcode file.

FUNCTION	CODE	COMMENT *(continued)*
iomaint.c	810a	The getsucbl() function was returned null UCB pointer to the IOP.
maintfun.c	8200	Detach from interrupts must be babbling.
maintfun.c	8201	Failed to detach from interrupts.
maintfun.c	8400	Wrong index for timeout.
maintfun.c	8401	Time out function and handler in wrong state.
maintfun.c	8500	Level is not equal to 1,2,3.
iomaint.c	8600	ucbptr is zero.
iomaint.c	8601	ucbptr is different then what came with iopen.
iomaint.c	8602	Maint command in NONINT state and not PIO.
iomaint.c	8603	Maint command in NONINIT state and not rmv or rst.
iomaint.c	8604	IOP driver has req dgn be aborted.
iomaint.c	8605	Maint handler is in wrong state for iomaint msg.
iomaint.c	8606	Request for timreq failed for iomaint msg.
iomaint.c	8607	Attach to interrupt failed.
iomaint.c	8608	Enable interrupts failed.
iomaint.c	8609	SDC timreq.
iomaint.c	860a	Not diag controller should not ask for this sdc attach.
iomaint.c	860b	Attach to interrupt failed.
iomaint.c	860c	Enable interrupts failed.
iomaint.c	860d	DIAGC is diagnosing controller should not ask for attach.
iomaint.c	860e	Detach from interrupts.
iomaint.c	860f	DIAGC diagnosing controller should not not ask for detach.
iomaint.c	8610	Error in trying to remove unit.
iomaint.c	8611	Attach to interrupt failed.
iomaint.c	8612	Enable interrupts failed.
iomaint.c	8613	u_stat is undefined state.
iomaint.c	8614	Error trying to restore unit.
iomaint.c	8615	Error on timing req DGNDMA.
iomaint.c	8616	getdmaa returned an error.
iomaint.c	8617	Received WSETUP0 before DGNDMA.
iomaint.c	8618	Received WSETUP1 before WSETUP0.
iomaint.c	8619	Received DMAEND before WSETUP1.
iomaint.c	861a	Failed uniolock.
iomaint.c	861b	getdmaa returned an error.
iomaint.c	861c	DIAGC has sent bad data in statword and operword.

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FUNCTION	CODE	COMMENT *(continued)*
iomaint.c	861d	Unable to push a command into the queue.
iomaint.c	861e	Error on time request.
iomaint.c	861f	Function uniolock() returned FAIL during WSETUP0 processing.
iomaint.c	8620	Function uniolock() returned FAIL.
maintfun.c	8700	Took interrupt handler in wrong state.
maintfun.c	8701	Detach failed.
maintfun.c	87f1	Cannot convert iorid to ucblp.
DUI HANDLER		
pmsgdu3.c	9001	Unable to store a command sent by Application Kernel.
pmsgdu3.c	9002	pushq1 failure.
pmsgdu3.c	9003	DUI ERROR message received from Application Kernel.
pmsgdu3.c	9004	getpta failure.
pmsgdu3.c	9005	asndma failure for restore parameters.
pmsgdu3.c	9006	asndma failure for DUI table.
pmsgdu3.c	9007	getopt failure.
pmsgdu3.c	9010	Scratch area order entry not NULL (case D_START).
pmsgdu3.c	9011	Scratch area order entry not NULL (case D_STOP).
pmsgdu3.c	9012	Scratch area order entry not NULL (case D_RMRQAY).
prspdu3.c	9101	TN82 Software Error.
prspdu3.c	9102	Unrecognized Asynchronous report received.
prspdu3.c	9103	deldma1 failure.
prspdu3.c	9104	asndma1 failure.
prspdu3.c	9105	Received restore command response w / Null msg. pointer.
prspdu3.c	9106	Received successful remove cmd from unknown dui msg type.
prspdu3.c	9107	Remove command from D_STOP msg failed.
prspdu3.c	9108	Remove command from D_RMRQAK msg failed.
prspdu3.c	9109	Unsuccessful remove cmd response from unknown msg.
prspdu3.c	910a	Received response from unconditional remove.
prspdu3.c	910b	Received unsuccessful response from remove command.
prspdu3.c	910c	Received unrecognized response from PC.

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FUNCTION	CODE	COMMENT *(continued)*
prspdu3.c	910d	Received RESTORE command response of unknown origin.
prspdu3.c	910e	Received REMOVE command response of unknown origin.
prstdu3.c	9201	timreq1 failure.
prstdu3.c	9202	IODRV sent illegal restore case.
prmvdu3.c	9301	timreq1 failure.
duchgstate.c	9400	Received illegal usr_type.
duisendmsg.c	9500	Requested msg type to send to Application Kernel is illegal.
pinitdu3.c	9600	Invalid type of initializing.
duifuncts.c	9901	Cannot store PCSD command.
SCC AND SDL HANDLER		
prstcp3.c	a010	Restart during growth.
prstcp3.c	a012	Failure to obtain option block, restore fails.
prstcp3.c	a014	Restore fails, device failed growth.
prstcp3.c	a015	Restore fails, device has no memory status.
prstcp3.c	a017	Restart failed, failed to obtain option block.
prstcp3.c	a019	Received a restart during growth, restart fails.
prstcp3.c	a01a	Restart failed, device has no memory status.
prstcp3.c	a01c	Restart failed, device has no memory status.
prstcp3.c	a01d	Restore type unknown.
prstcp3.c	a01e	Restart failed, device failed growth.
prstcp3.c	a026	Unable to obtain PTA and SEGID for PCSD scratch area.
prstcp3.c	a027	Unable to obtain DMA job for PCSD scratch area.
prstcp3.c	a028	Unable to obtain DMA job for common scratch area.
prstcp3.c	a030	Invalid restore type.
pinitcp3.c	a100	Unknown initialization type.
pmsgcp3.c	a212	NULL common scratch area pointer.
pmsgcp3.c	a222	Unknown open type.
ptrpcp3.c	a302	NULL common scratch area pointer.
prspcp3.c	a414	Invalid Dial-out response - feature not supported.
prspcp3.c	a417	Unknown base-priority PCSD response type.
prspcp3.c	a418	Unknown high-priority PCSC response type.
prspcp3.c	a419	Invalid priority type.
prspcp3.c	a422	Unexpected restore-rsp from a restored PCSD.
prspcp3.c	a423	Unexpected restore-rsp from an OOS PCSD.

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FUNCTION	CODE	COMMENT *(continued)*
prspcp3.c	a431	Unexpected CONNECT-report.
prspcp3.c	a433	DIAL-OUT-FAILURE-report not yet supported.
prspcp3.c	a434	Invalid asynchronous report from PCSD.
prspcp3.c	a435	Failure to send RECEIVE jobs to PCSD.
prspcp3.c	a436	DISCONNECT-report not yet supported.
prspcp3.c	a442	Unable to allocate an input buffer.
prspcp3.c	a443	Unable to send a RECEIVE-command.
prspcp3.c	a445	No RECEIVE-jobs at PCSD.
prspcp3.c	a450	Failure to send RECEIVE-jobs to PCSD.
prspcp3.c	a451	Unexpected TRANSMIT-response.
prspcp3.c	a452	Error on TRANSMIT-response for XID ack packet - Dial-Up link.
prspcp3.c	a453	Error in TRANSMIT-job.
prspcp3.c	a461	Unexpected RECEIVE-response.
prspcp3.c	a462	Error in RECEIVE-job - Private line link.
prspcp3.c	a463	Error in RECEIVE-job - Dial-Up link.
prspcp3.c	a470	Hardware Error/Link disconnect report.
prspcp3.c	a471	Unknown Hardware Error.
prspcp3.c	a472	Invalid BX.25 level 2 protocol line address on TRANSMIT-job.
prspcp3.c	a473	PCSD microcode has detected an operational error. Format of additional information is defined as: *a b a* = word 1 of error response (hex). *b* = word 2 of error response (hex).
prspcp3.c	a474	BX.25 level 2 N2 count exceeded; number of retransmissions exceeded.
prspcp3.c	a475	Invalid asynchronous error report.
prspcp3.c	a476	Cause of Receive Frame-reject not known.
prspcp3.c	a477	Cause of Transmit Frame-reject not known.
prspcp3.c	a478	Aggregate one-count error type not known.
prspcp3.c	a479	Receive-frame reject.
prspcp3.c	a47a	Frame-reject probable line address conflict.
prspcp3.c	a47b	Transmit-frame reject.
prspcp3.c	a47c	This error type reported by DDCMP version.
prspcp3.c	a47d	Error in RESTORE-data - private line link.
prspcp3.c	a481	Unable to obtain timer entry for Dial-Up DT2.
prspcp3.c	a482	Unable to obtain PCSD option block from ECD - Dial-Up link.
prspcp3.c	a483	Unable to send RECEIVE-command for XID packet.
prspcp3.c	a484	Failure to send RECEIVE-jobs to PCSD.

FUNCTION	CODE	COMMENT *(continued)*
prspcp3.c	a492	Unable to obtain PCSD option block from ECD - Dial-Up link.
prspcp3.c	a493	Unable to send TRANSMIT-command for XID acknowledgement packet.
prspcp3.c	a4a1	Unable to obtain timer entry for dial-up DT2.
prspcp3.c	a4b1	Unable to obtain timer entry for dial-up DT3.
prspcp3.c	a4d1	Unable to initialize Plants Measurement database.
prspcp3.c	a4d2	Unable to create PCSD record in PM database.
prspcp3.c	a4d3	Unable to read PCSD record in PM database.
prspcp3.c	a4d4	Unable to update PCSD record in PM database.
pdmod.c	a505	Unable to push PCSD command.
prmvcp3.c	a507	The go-out-of-service (GOOS) timer is active when a remove request is made. Format of additional information is defined as: *a b a* = word of pdstat (hex). *b* = short word of GOOS timer index (hex).
prmvcp3.c	a508	The GOOS timer is invalid.
prmvcp3.c	a509	Request for GOOS-rsp timer returned FAIL.
ldmod.c	a611	Fatal error reported on the PCSD.
ldmod.c	a612	Reported PCSD error not recognized.
ldmod.c	a614	Multiple-active-link config not supported.
ldmod.c	a616	Invalid link configuration.
ldmod.c	a636	Invalid link configuration.
ldmod.c	a637	Multiple-active-link config not supported.
ldmod.c	a644	Multiple-active-link config not supported.
ldmod.c	a646	Invalid link configuration.
ldmod.c	a654	Multiple-active-link config not supported.
ldmod.c	a655	Invalid link configuration.
ldmod.c	a663	Multiple-active-link config not supported.
ldmod.c	a664	Invalid link configuration.
ldmod.c	a665	No ucblp available - simplex config.
ldmod.c	a666	No ucblp available - duplex config.
ldmod.c	a669	Failure to obtain ucblp.
ldmod.c	a66a	Failure to obtain second ucblp.
ldmod.c	a66b	No PCSD is active.
ldmod.c	a66c	Number of PCSDs is greater than 2.
ldmod.c	a66d	Second RID equal to NULL and not PCSD is active.
ldmod.c	a673	Multiple-active-link config not supported.
ldmod.c	a674	Invalid link configuration.
ldmod.c	a675	Reporting PCSD not the active unit.
ldmod.c	a681	Invalid remove-type.
ldmod.c	a684	Multiple-active-link config not supported.

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FUNCTION	CODE	COMMENT *(continued)*
ldmod.c	a685	Invalid link configuration.
ldmod.c	a691	NULL ucblp for simplex config.
ldmod.c	a692	Multiple-active-link config not supported.
ldmod.c	a693	No active device for duplex config.
ldmod.c	a694	NULL ucblp for duplex config.
ldmod.c	a699	Invalid link configuration.
ldmod.c	a6a0	Restore-failure in an OOS (internal state) PCSD.
ldmod.c	a6a3	Link-available-report from an OOS (internal state) PCSD.
ldmod.c	a6a4	Invalid stimulus for an OOS (internal state) PCSD.
ldmod.c	a6a5	Invalid stimulus for a GOOS (internal state) PCSD.
ldmod.c	a6aa	Connection-timeout for a restored (internal state) PCSD.
ldmod.c	a6ab	Invalid stimulus for a restored (internal state) PCSD.
ldmod.c	a6ae	Invalid stimulus for an active (internal state) PCSD.
ldmod.c	a6b2	Failure to get ucblp.
ldmod.c	a6b3	Invalid stimulus for a standby (internal state) PCSD.
ldmod.c	a6b4	Invalid stimulus for S1_RECOV state.
ldmod.c	a6b7	Invalid stimulus for S1_INIT state.
ldmod.c	a6ff	Invalid internal state for PCSD.
ldmod.c	a6be	Multiple-active-link config not supported.
ldmod.c	a6bf	Invalid link configuration.
ldmod.c	a6c5	Multiple-active-link config not supported.
ldmod.c	a6c6	Invalid link configuration.
ldmod.c	a6c8	Connection timeout for a simplex PCSD.
ldmod.c	a6c9	Connection timeout for a duplex config.
ldmod.c	a6ca	Multiple-active-link config not supported.
ldmod.c	a6cb	Invalid link configuration.
ldmod.c	a6d3	Multiple-active-link config not supported.
ldmod.c	a6d4	Invalid link configuration.
ldmod.c	a6d8	NULL timeout flag.
ldmod.c	a6d9	Timeout flag different from stored value.
ldmod.c	a6da	Failure to get ucblp.
ldmod.c	a6db	No record of previously active PCSD.
ldmod.c	a6dc	Both PCSDs are OOS or GOOS (internal state).
ldmod.c	a6dd	Maximum number of timing periods.

FUNCTION	CODE	COMMENT *(continued)*
ldmod.c	a6de	Maximum number of timing periods, NULL ucblp.
ldmod.c	a6df	Maximum number of timing periods, NULL ucblp.
ldmod.c	a6e1	Multiple-active-link config not supported.
ldmod.c	a6e2	Invalid link configuration.
cminit.c	a712	Unable to obtain PTA and SEGID for common scratch area.
cminit.c	a716	Unable to obtain MDCT record.
chmod.c	a831	Invalid output action for PUTCHAR input.
chmod.c	a832	Invalid current output state for PUTCHAR input.
chmod.c	a833	Invalid return value for choastrat().
chmod.c	a835	Invalid closing action for PUTCHAR input.
chmod.c	a836	Invalid return value from chorstrat().
chmod.c	a841	Invalid input action for GETCHAR input.
chmod.c	a842	Invalid current state for GETCHAR input.
chmod.c	a843	Invalid return value from chiastrat().
chmod.c	a845	Invalid closing action for GETCHAR input.
chmod.c	a846	Invalid return value from chirstrat().
chmod.c	a847	Unable to unlink buffer of a zero-length data packet from the common handler queue.
chmod.c	a854	Unsuccessful transfer of all input data of user's buffer.
chmod.c	a855	Unsuccessful transfer of all input data to user's buffer.
chmod.c	a856	Unsuccessful transfer of requested input data.
chmod.c	a857	Invalid return value from chirstrat().
chmod.c	a858	Invalid current input state for GETCHAR input.
chmod.c	a859	Invalid return value from chiastrat().
chmod.c	a85a	Error encountered in background data transfer.
chmod.c	a861	Invalid action for output procedure continuation.
chmod.c	a862	Invalid current output state.
chmod.c	a865	Invalid return value from chorstrat().
chmod.c	a866	Invalid output state.
chmod.c	a867	Invalid return value from chorstrat().
chmod.c	a868	Invalid return value from choastrat().
chmod.c	a869	cphslfree is NULL.
chmod.c	a870	cphlkfree is NULL.
choastrat	a871	Invalid output state.

FUNCTION	CODE	COMMENT *(continued)*
chiostrat.c	a881	More bytes of output than requested.
chiostrat.c	a882	Invalid output procedure flag.
chiostrat.c	a885	Partition in an invalid output state.
phmod.c	a910	Invalid system status being reported.
phmod.c	a941	Invalid return value from logical device handler.
mmmmod.c	aa00	`ioaddseg()` failed in case of IOREBOOT.
mmmmod.c	aa01	Invalid memory initialization type to `mminit()`.
mmmmod.c	aa10	Invalid init type.
mmmmod.c	aa20	Bad segment.
mmmmod.c	aa21	Queue is full.
mmmmod.c	aa30	`iogrowseg()` returned failure.
mmmmod.c	aa31	`ioaddseg()` returned failure.
mmmmod.c	aa40	`get_cell()` returned failure.
mmmod.c	aa41	No matching address and key found.
mmmod.c	aa50	Segment count greater than MAXSEGS.
mmmmod.c	aa51	`get_cell()` returned FAIL.
mmmmod.c	aa60	Bad segment.
mmmmod.c	aa70	`iogrowseg()` returned failure.
mmmmod.c	aa71	Bad segment.
mmmod.c	aa80	No matching address and key found.
mmmod.c	aa90	`get_cell()` returned failure.
mmmmod.c	aaa0	free_area number of cells zero.
mmmmod.c	aaa1	`iogrowseg()` returned failure.
mmmmod.c	aab0	vaddr and key invalid.
mmmmod.c	aab1	IODRV unable to grow segment.
pgrowcp3.c	ab00	Unknown growth type.
pgrowcp3.c	ab02	Failure to obtain option block, growth fails.
pgrowcp3.c	ab03	Degrow fails; memory not allocated at growth time.
pgrowcp3.c	ab04	Degrow fails; no memory status for this device.
pgrowcp3.c	ab06	Failure to obtain option block; boot restore fails.
pgrowcp3.c	ab08	Growth fails; memory allocation from SMC failed.
pgrowcp3.c	ab0a	Failed to obtain same ucb; boot restore fails.
chpcreat.c	ac01	No global free space for restio entry.
chpcreat.c	ac02	Index bad when pcreate timer fires. Format of additional string information is defined as: *a a* = channel id (hex).
chpcreat.c	acf3	chpcreat returned SUCCESS.
chpcreat.c	acff	findpid() returned non-NULL.
x3send.c	af00	BX.25 level 3 cannot restart with far end.
x3send.c	af01	Unexpected failure to send control packet.

FUNCTION	CODE	COMMENT *(continued)*
x3send.c	af02	Unexpected failure to send interrupt packet.
x3send.c	af03	Unexpected failure to send data packet.
NPH HANDLER		
psconn.c	b001	Invalid high level user protocol-id.
psconn.c	b002	Invalid application tag.
psdetach	b003	Unknown application tag.
psrstnp3	b101	DTE table full.
psinit	b302	RUNA record set_id not found.
psinit	b303	Failure to open cursor for sets.
pgrownp3.c	b500	Failure to obtain PCSD option block.
pgrownp3.c	b501	ACT internal state for DEGROW request.
pgrownp3.c	b502	Unknown internal state.
pgrownp3.c	b503	Unknown type of IODRV request.
pgrownp3.c	b504	Failure to get SEGID and PTA for buffer area.
pgrownp3.c	b505	Failure to allocate scratch memory.
pgrownp3.c	b506	Failure to get RESTORE PCSD.
pgrownp3.c	b507	Failure to get obtain ucblp.
pgrownp3.c	b508	Failure to allocate scratch memory.
pinitnp3.c	b580	Unknown type of IODRV request.
prstnp3.c	b600	ACT internal state for RESTORE request.
prstnp3.c	b601	Failure to RESTORE a PCSD.
prstnp3.c	b602	ACT internal state for NOT_IMPLICATED_RESTART request.
prstnp3.c	b603	Failure to RESTORE a PCSD.
prstnp3.c	b604	ACT internal state for IMPLICATED_RESTART request.
prstnp3.c	b605	Failure to obtain an IODRV timer element.
prstnp3.c	b606	Failure to RESTORE a PCSD.
prstnp3.c	b607	Unknown type of IODRV request.
prstnp3.c	b608	Memory allocation request in progress.
prstnp3.c	b609	Failed to allocate scratch memory.
prstnp3.c	b60a	Failure to get SEGID and PTA for PCSD scratch.
prstnp3.c	b60b	Failure to get DMA slot for PCSD scratch.
prstnp3.c	b60c	Failure to get DMA slot for buffer area.
prstnp3.c	b60d	Failure to obtain PCSD option block.
prstnp3.c	b60e	Somebody changed the option block.
prmvnp3.c	b680	ACT internal state for UNCONDITIONAL_REMOVE request.

FUNCTION	CODE	COMMENT *(continued)*
prmvnp3.c	b681	Failure to send GO_OUT_OF_SERVICE command to PCSD.
prmvnp3.c	b682	Failure to obtain IODRV timer element.
prmvnp3.c	b683	Unknown type of IODRV request.
prmvnp3.c	b684	Unknown type of IODRV request.
prmvnp3.c	b685	Unknown internal state.
prmvnp3.c	b686	OOS internal state for (UN)CONDITIONAL_REMOVE request.
prmvnp3.c	b687	OOS internal state for HALF_REMOVE request.
prmvnp3.c	b688	OOS internal state for unknown type of IODRV request.
prspnp3.c	b700	Unexpected RESTORE response, ACT internal state.
prspnp3.c	b701	Unexpected DIAL-OUT response, ACT internal state.
prspnp3.c	b702	Unknown PCSD response, ACT internal state.
prspnp3.c	b703	Unexpected RECEIVE report, INIT internal state.
prspnp3.c	b704	Unexpected TRANSMIT report, INIT internal state.
prspnp3.c	b705	Unexpected ASYNCHRONOUS report, INIT internal state.
prspnp3.c	b706	Unexpected DIAL-OUT response, INIT internal state.
prspnp3.c	b707	Unknown PCSD response, INIT internal state.
prspnp3.c	b708	Unexpected GO_OUT_OF_SERVICE response, OOS internal state.
prspnp3.c	b709	Unexpected RECEIVE report, OOS internal state.
prspnp3.c	b70a	Unexpected TRANSMIT report, OOS internal state.
prspnp3.c	b70b	Unexpected ASYNCHRONOUS report, OOS internal state.
prspnp3.c	b70c	Unexpected DIAL-OUT response, OOS internal state.
prspnp3.c	b70d	Unexpected PCSD response, OOS internal state.
prspnp3.c	b70e	Unexpected RESTORE response, RMVIP internal state.
prspnp3.c	b70f	Unexpected ASYNCHRONOUS_ERROR report, RMVIP internal state.

FUNCTION	CODE	COMMENT *(continued)*
prspnp3.c	b710	Unexpected RECEIVE report, RMVIP internal state.
prspnp3.c	b711	Unexpected TRANSMIT report, RMVIP internal state.
prspnp3.c	b712	Unexpected ASYNCHRONOUS report, RMVIP internal state.
prspnp3.c	b713	Unexpected DIAL-OUT response, RMVIP internal state.
prspnp3.c	b714	Unknown PCSD response, RMVIP internal state.
prspnp3.c	b715	Unexpected response; memory request in progress.
prspnp3.c	b716	Unexpected response, memory request failed.
prspnp3.c	b717	Unknown internal state.
prspnp3.c	b720	No jobs queued for input on PCSD.
prspnp3.c	b721	Error on a RECEIVE job.
prspnp3.c	b730	Error on a TRANSMIT job.
prspnp3.c	b740	Failure to initialize buffers.
prspnp3.c	b741	Failure to initialize scratch areas.
prspnp3.c	b742	Failure to obtain PCSD option block.
prspnp3.c	b750	Failure to send RESTORE command to PCSD.
prspnp3.c	b760	Failure to remove an IODRV timer element.
prspnp3.c	b761	CONNECT report received on a connected PCSD.
prspnp3.c	b762	No jobs queued for input on PCSD.
prspnp3.c	b763	Invalid DATA-SET DISCONNECT report.
prspnp3.c	b765	Unknown ASYNCHRONOUS report.
prspnp3.c	b770	Hardware error, link disconnect report.
prspnp3.c	b771	Unknown hardware error.
prspnp3.c	b772	PCSD software error.
prspnp3.c	b773	CRC error report.
prspnp3.c	b774	Invalid line address on a RECEIVE job.
prspnp3.c	b775	Invalid line address on a TRANSMIT job.
prspnp3.c	b776	N2 count exceeded.
prspnp3.c	b777	Frame reject received.
prspnp3.c	b778	Frame reject received, cause unknown.
prspnp3.c	b779	Frame reject transmitted.
prspnp3.c	b77a	Frame reject transmitted, cause unknown.
prspnp3.c	b77b	Frame reject transmitted; probable line address conflict.
prspnp3.c	b77c	Aggregate one-count error type unknown.
prspnp3.c	b77d	This error type reported by DDCMP version.
prspnp3.c	b77e	Error in RESTORE data.

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FUNCTION	CODE	COMMENT *(continued)*
prspnp3.c	b77f	Unknown asynchronous error report.
prspnp3.c	b790	Failure to allocate an input buffer.
prspnp3.c	b791	Failure to send a RECEIVE job to PCSD.
prspnp3.c	b792	RESTORE command timeout.
prspnp3.c	b793	CONNECT (level 2 protocol init.) timeout.
dimod.c	b800	Failure to get ucblp.
dimod.c	b805	Failure to push PCSD command.
dimod.c	b806	No jobs queued for input on PCSD.
dimod.c	b807	Failure to get ucblp.
dimod.c	b808	Failure to get ucblp.
plinit.c	ba01	Failure to get timer index from IODRV.
plrcv.c	ba11	Packet < 2 octets or invalid GFI or channel unassigned.
plrcv.c	ba12	Packet type invalid.
plrcv.c	ba13	RESTART INDICATION packet in state R3_RSTIND.
plrcv.c	ba14	Logical channel 0 in undefined state.
plrcv.c	ba15	RESTART INDICATION on non-zero channel in state P6_CLRREQ.
plrcv.c	ba16	RESTART INDICATION on non-zero channel in state D2_RESREQ.
plrcv.c	ba17	RESTART INDICATION on non-zero channel in state R2_RESREQ.
plrcv.c	ba18	Logical channel in an undefined state.
plrcv.c	ba19	Illegal channel and packet type combination.
plrcv.c	ba1a	Invalid packet length. Format of additional information is defined as: *a b c a* = packet type (hex) *b* = number of bytes in packet (decimal) *c* = channel number (decimal).
plcaccept.c	bb01	Logical channel in an undefined state.
pldacks.c	bb02	Logical channel in an undefined state.
plexdt.c	bb03	Logical channel in an undefined state.
plrest.c	bb04	Logical channel in an undefined state.
pldacks.c	bb05	Read substate of the logical channel undefined.
plrest.c	bb06	RESET INDICATION packet in state D3_RESIND.
plcconfi.c	bb11	CALL CONNECTED packet in state R2_RSTREQ.
plcindic.c	bb21	INCOMING CALL packet in state R2_RSTREQ or P6_CLRREQ.
plcindic.c	bb22	Originally-called DTE address is Out of Order in Call Redirection Notification facility.

FUNCTION	CODE	COMMENT *(continued)*
plcindic.c	bb23	Originally-called DTE address is Busy in Call Redirection Notification facility.
plcindic.c	bb24	Non-supported reason for redirecting originally-called DTE address in Call Redirection Notification facility.
plcindic.c	bb25	Originally-called DTE address is Out of Order in Called Line Address Modified Notification facility.
plcindic.c	bb26	Originally-called DTE address is Busy in Called Line Address Modified Notification facility.
plcindic.c	bb27	Non-supported reason for modifying originally-called DTE address in Called Line Address Modified Notification facility.
pldiscr.c	bb41	Logical channel in an undefined state.
pldiscr.c	bb42	CLEAR INDICATION packet in state P7_CLRIND.
pldiscr.c	bb43	Logical channel in an undefined state.
pldiscr.c	bb44	CLEAR CONFIRMATION in state R2_RSTREQ or R3_RSTIND.
pldiscr.c	bb45	Logical channel in an undefined state.
plrest.c	bb70	RESET INDICATION packet in state R2_RSTREQ or R3_RSTIND.
plrest.c	bb71	RESET CONFIRMATION in state R2_RSTREQ or R3_RSTIND.
plrest.c	bb72	Reset received with diag code of "d-bit not supported."
plexdt.c	bb81	Logical channel in an undefined state.
plexdt.c	bb82	Logical channel in an undefined state.
plrndata.c	bc01	Logical channel in an undefined state.
plrndata.c	bc02	Invalid return code from "copypacket" function.
plrndata.c	bc03	Read substate of logical channel undefined.
plrndata.c	bc05	Read substate of logical channel undefined.
plrndata.c	bc70	DATA packet in state R2_RSTREQ or R3_RSTIND.
plsndata.c	bd01	Send substate of logical channel undefined.
plsndata.c	bd02	Logical channel in an undefined state.
plsndata.c	bd03	Invalid return code from "edmacopy" function.
plsndata.c	bd04	Send substate of channel undefined.
plsndata.c	bd80	RR/RNR packet in state R2_RSTREQ or R3_RSTIND.
pltime.c	be00	T22 timer not active in state D2_RESREQ.
pltime.c	be01	T21 timer not active in state P2_CALLREQ.

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FUNCTION	CODE	COMMENT *(continued)*
pltime.c	be02	T23 timer not active in state P6_CLRREQ.
pltime.c	be03	T20 timer not active in state R2_RSTREQ.
TP HANDLER		
md_buffer.c	c101	Wait for a buffer; type is unknown.
md_buffer.c	c111	Failure to format an AK, EA, or RJ TPDU.
md_init.c	c121	Failure to read the "TPH 0" UCB ECD record.
md_init.c	c122	Failure to read the tphopt ECD record for TPH.
md_init.c	c125	Failure to retrieve RID for ECD record being changed.
md_init.c	c126	Failure to find tsapinfo record RID in table; DELETE operation.
md_init.c	c131	Failure to read the tphopt ECD record for TPH.
md_init.c	c133	Failure to retrieve tsapinfo record; INSERT operation.
md_init.c	c134	Failure to retrieve tsapinfo record; UPDATE operation.
md_init.c	c135	Failure to retrieve NSAP to DTE mapping table; DELETE operation.
md_init.c	c136	Failure to retrieve NSAP to DTE mapping table; UPDATE operation.
md_init.c	c137	Failure to retrieve NSAP to DTE mapping table; INSERT operation.
md_init.c	c141	Request for memory from the IODRV failed.
md_timers.c	c142	Request for memory for TPH input buffer failed.
md_input.c	c201	Unknown address type for TS user data area.
md_input.c	c202	Unknown state of the TC input queue.
md_input.c	c211	Unknown address type for TS user data area.
md_input.c	c212	Unknown TPDU type for a NPH RDCMP.
md_input.c	c213	Unknown NPH return code value for a NPH RDCMP.
md_output.c	c217	NULL value passed in as TPH memory buffer ptr.
md_input.c	c221	Unknown address type for TS user data area.
md_input.c	c222	Unknown state of the TC input queue.
md_input.c	c223	TS user read error; class 2 TC.
md_input.c	c224	TS user read error; class 2 TC.
md_input.c	c225	Peer TE sent invalid TPDU-NR in DT TPDU; class 0 or 2 TC.
md_input.c	c226	TS user read error; class 0 or 2 TC.

FUNCTION	CODE	COMMENT *(continued)*
md_input.c	c227	Peer TE sent invalid TPDU-NR in DT TPDU; class 0 or 2 TC.
md_input.c	c228	Peer TE sent invalid TPDU-NR in DT TPDU; class 0 or 2 TC.
md_input.c	c229	TS user read error; class 0 or 2 TC.
md_timers.c	c231	Timeout for unknown timer type.
md_timers.c	c232	Timeout for invalid TC local reference.
md_timers.c	c233	Invalid timeout element for timer type.
tl_buffers.c	c301	Cannot find TPDU on retain queue.
tl_buffers.c	c302	Retain queue is empty.
tl_conn.c	c311	DR TPDU not found in the retained queue.
tl_conn.c	c315	Failure to initiate TCONreq; invalid predicate, P1 or P3.
tl_conn.c	c316	Failure to initiate TCONreq; all tc_data structures in use.
tl_conn.c	c317	Failure to initiate TCONreq; no tsapinfo for TSAP addresses specified.
tl_conn.c	c318	Failure to initiate TCONreq; TS user data length exceeds maximum.
tl_conn.c	c319	Failure to initiate TCONreq; all nc_data structures in use.
tl_conn.c	c320	Failure to initiate TCONreq; invalid class in tsapinfo.
tl_conn.c	c321	DR TPDU not found in the retained queue.
tl_conn.c	c322	Failure handling incoming CR; cannot allocate tc_data.
tl_conn.c	c323	Failure handling incoming CR; cannot assign nc_data.
tl_conn.c	c324	Failure handling incoming CR; cannot assign nc_data.
tl_conn.c	c325	Failure handling incoming CR; insufficient throughput available.
tl_conn.c	c326	Invalid CR TPDU received; connection refused.
tl_conn.c	c331	CR TPDU not found in the retained queue.
tl_conn.c	c332	Invalid TC state for a N-CONNECT confirmation.
tl_conn.c	c333	DR TPDU not found in the retained queue.
nsi.c	c341	Unknown NPH indication.
nsi.c	c342	tc-data structure queued twice on DTE priority queue.

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FUNCTION	CODE	COMMENT *(continued)*
nsi.c	c343	tc-data structure queued twice on DTE priority queue.
nsi.c	c344	Failure requesting NC for TC; no tsapinfo for TSAP addresses specified.
nsi.c	c345	Failure requesting NC for TC; invalid local nsap in tsapinfo.
nsi.c	c346	Failure to obtain NC; class 0 or 1 TC.
nsi.c	c347	Failure to obtain NC; no DTE found to degrade TC's service.
nsi.c	c348	Failure to obtain NC; no NCs available for multiplexing.
nsi.c	c349	Failure to obtain NC; could not change throughput on multiplexed NC.
nsi.c	c350	Failure to obtain NC on retry; no NCs and/or throughput.
nsi.c	c351	Failure to obtain NC on retry; invalid return.
nsi.c	c352	Failure to obtain NC; class 0 or 1 TC.
nsi.c	c353	Failure to obtain NC; no NCs available for multiplexing.
nsi.c	c354	Failure to obtain NC; could not change throughput on multiplexed NC.
nsi.c	c355	Failure to obtain NC; invalid QOS specified.
nsi.c	c356	Failure to obtain NC; DTE specified is unavailable.
nsi.c	c357	Failure to obtain NC; invalid return.
nsi.c	c358	Failure to obtain NC; no NCs and/or throughput for class 0 TC.
tl_data.c	c401	Invalid event for first TPDU received.
tl_data.c	c405	Error formatting CC TPDU; extended TSAPID requested, but not found.
tl_data.c	c406	Error formatting CC TPDU; user data specified for class 0 TC.
tl_data.c	c407	Error formatting CC TPDU; TS user data length exceeds maximum.
tl_data.c	c411	DR TPDU not found in the retained queue.
tl_data.c	c421	Unknown event for tl_dt_procedure.
tl_data.c	c422	Retained DT TPDU mismatches lower window.
tl_data.c	c431	DT TPDU not found in the retained queue.
tl_data.c	c432	DT TPDU not found in the retained queue.
tl_data.c	c433	CC TPDU not found in the retained queue.

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FUNCTION	CODE	COMMENT *(continued)*
tl_data.c	c434	DR TPDU not found in the retained queue.
tl_data.c	c435	NS provider error for transmission of a DT TPDU.
tl_disc.c	c441	Invalid TC state for a DR TPDU.
tl_disc.c	c442	DR TPDU RECEIVED; invalid SRC-REF.
tl_disc.c	c443	DR TPDU RECEIVED; class 0 TC, OPEN state.
tl_disc.c	c444	DR TPDU RECEIVED; WFCC state, peer refused connect request.
tl_disc.c	c445	DR TPDU RECEIVED; class 0 TC, WBCL state.
tl_disc.c	c446	Receipt of DC TPDU; class 0 TC, CLOSING state.
tl_disc.c	c447	Receipt of DC TPDU; protocol error, invalid state.
tl_disc.c	c451	Invalid TC state for a N-DISCONNECT indication.
tl_disc.c	c452	NDISind; class 0 or 2 TC, WFCC state.
tl_disc.c	c453	NDISind; class 0 o 2 TC, WFNC state.
tl_disc.c	c454	NDISind; TTR timeout, WFNC state.
tl_disc.c	c455	NDISind; TTR timeout, WBCL state.
tl_disc.c	c456	NDISind; WFTRESP or WBOC state, no TWR timer value.
tl_disc.c	c457	NDISind; class 0 or 2 TC, CLOSING or WBCL state.
tl_disc.c	c458	TDISreq; WFCC state.
tl_disc.c	c459	TDISreq; WFTRESP state.
tl_disc.c	c45a	TDISreq; WBOC state.
tl_interf.c	c461	Unknown incoming event.
tl_interf.c	c462	Unsupported class.
tl_interf.c	c463	AK or EA TPDU received; class 0 TC.
tl_interf.c	c464	RJ TPDU received; class 0 or 2 TC.
tl_interf.c	c465	Expedited Data Request; class 0 TC.
tl_interf.c	c471	Unknown TPDU type.
tl_interf.c	c481	Fatal TPH error for a reassignment.
tl_misc.c	c491	Changing TC state to an invalid state.
tl_misc.c	c4a1	TPDU not found in the retained queue.
tl_timers.c	c501	Unknown timer type.
tl_timer.c	c502	Failure to start timer.
tl_timers.c	c511	Unknown timer type.
tl_timers.c	c512	Failure to stop timer.
tl_timers.c	c541	Invalid state.
tl_timers.c	c551	Invalid state.
tl_timers.c	c561	Unknown timer type.
tl_reset.c	c581	Failure to format RJ TPDU.
tl_reset.c	c582	NRSTind; class 0 or 2 TC, OPEN state.

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FUNCTION	CODE	COMMENT *(continued)*
tl_reset.c	c583	NRSTind; OPEN state, TTR timer has previously expired.
tl_reset.c	c584	NRSTind; class 0 or 2 TC, WFCC state.
tl_reset.c	c585	NRSTind; WFCC state, TTR timer has previously expired.
tl_reset.c	c586	NRSTind; class 0 or 2 TC, WFTRESP state.
tl_reset.c	c587	NRSTind; class 0 TC, WBCL state.
tl_reset.c	c588	NRSTind; class 0 TC, CLOSING state.
tl_reset.c	c589	Protocol error for a TPDU received.
tsi.c	c591	No tsapinfo ECD record for specified TSAP.
tsi.c	c592	Failure to open ECD for tsapinfo records.
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update_tc_state()	cf00	Transport connection state invalid.
update_control_state()	cf01	Control state invalid.
update_output_state()	cf02	Output state invalid.
timeout_tc()	cf03	Transport connection timeout.
fatal_btih_error()	cf04	Fatal BT interface handler error.
inp_avail()	cf10	Received unexpected pdu type.
receive_complete()	cf10	Received unexpected pdu type.
connect_tc()	cf11	TSAP not found.
connect_tc()	cf12	Respond failed.
inp_avail()	cf13	T_recv failed.
write_to_tl()	cf20	T_send failed.
get_query_info()	cf21	P_iomap failed.
open_device()	cf30	T_attach failed.
pass_poll_request()	cf40	Sendevent failed.
pass_checkpt_ack()	cf40	Sendevent failed.
neg_clean_up()	cf40	Sendevent failed.
open_device()	cf40	Sendevent failed.
disconnect_tc()	cf40	Sendevent failed.
ptrpbt3()	cf50	G_iomap failed.
read_ecd_data()	cf60	Bad logdev record for control device.
read_ecd_data()	cf61	Bad logdev record for output device.
read_ecd_data()	cf62	Bad btihdev ecd record.
pmsgbt3()	cf70	No more available pdu blocks.
get_free_block()	cf70	No more available pdu blocks.

SP HANDLER

FUNCTION	CODE	COMMENT *(continued)*
s_i_ab_spdu_mi()	d010	Expected TDisconnect Indication.
s_req_buffer_md()	d101	Requested more than a segment of memory.
s_init_all_buffers_md()	d103	Handler initialization error.
s_init_s_con_data_md()	d104	Handler not initialized yet.
s_rel_con_data_md()	d105	NULL pointer for pointer to connection data structure.
s_rel_con_data_md()	d106	Connection data structure corrupted.
s_rel_con_data_md()	d107	Connection data structure already returned to map.
s_rel_con_data_md()	d108	Too many connection data structures returned.
s_reuse_con_data_md()	d109	Connection data structure pointer is NULL.
s_reuse_con_data_md()	d10a	Connection data structure corrupted.
s_reuse_con_data_md()	d10b	Expedited service selected.
s_reuse_con_data_md()	d10c	No reuse in effect.
s_reuse_con_data_md()	d10d	Duplicate entry in no reuse structure.
s_reuse_con_data_md()	d10e	Duplicate entry in reuse structure.
s_reuse_con_data_md()	d10f	Too many connections allocated.
s_find_ind_function_md()	d110	Session Protocol Handler not ready.
s_attach()	d111	Session Protocol Handler not ready.
s_detach()	d112	Session Protocol Handler not ready.
s_reuse_con_data_md()	d113	Illegal state of Session Protocol Machine.
s_attach()	d114	Invalid version.
s_o_t_req_connect_md()	d201	Call to t_connect() failed.
s_o_t_rsp_connect_md()	d202	Call to t_respond() failed.
s_o_t_disconnect_md()	d203	Call to t_disconnect() failed.
pinitsp3	d301	Attach to local TSAP failed.
pmsgsp3	d302	Invalid message type.
pmsgsp3	d303	Message had bad record id.
pmsgsp3	d304	lla_rdget call failed.
pmsgsp3	d305	Attach to local TSAP failed.
pmsgsp3	d306	Illegal ECD operation reported.
s_o_norm_spdu_send_md	d402	Failed attempt to send CN SPDU.
s_o_norm_spdu_send_md	d403	Illegal state to send SPDU.
s_o_norm_spdu_send_md	d404	Failed attempt to send SPDU.
s_o_norm_spdu_send_md	d405	Illegal state to send SPDU.
s_o_norm_spdu_send_md	d406	Failed attempt to send AA or AB SPDU.
s_o_norm_spdu_send_md	d407	Illegal state to send AA or AB SPDU.
s_o_norm_spdu_send_md	d408	Illegal SPDU type.
s_o_ssdu_send_md()	d409	Illegal use of segmenting.

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FUNCTION	CODE	COMMENT *(continued)*
s_o_ssdu_send_md()	d40a	Illegal state for sending unsegmented data.
s_o_ssdu_send_md()	d40b	Illegal ssdu_segment value.
s_o_ssdu_send_md()	d40c	Illegal ssdu_segment value.
s_o_ssdu_send_md()	d40d	Illegal state for sending segmented data.
s_o_ssdu_send_md()	d40e	tsdu size <= GTSEGDTHDR.
s_send_tsc_md()	d40f	Failed attempt to send AA or AB SPDU.
s_send_tsc_md()	d410	Session Protocol Machine in illegal state.
s_send_ack_md()	d411	Inconsistent number of t_acknowledges outstanding.
s_send_ack_md()	d412	Inconsistent number of t_acknowledges.
s_send_ack_md()	d413	Inconsistent number of t_acknowledges.
s_send_ack_md()	d414	Number of t_acknowledges > NUMSEGHEADS.
s_send_ack_md()	d415	Inconsistent number of t_acknowledges.
s_send_ack_md()	d416	Inconsistent number of t_acknowledges.
s_send_ack_md()	d417	Inconsistent number of t_acknowledges.
s_send_ack_md()	d418	Number of t_acknowledges > NUMSEGHEADS.
s_send_ack_md()	d419	Inconsistent number of t_acknowledges.
s_send_ack_md()	d41a	Inconsistent number of t_acknowledges.
s_send_ack_md()	d41b	Inconsistent number of acknowledges.
s_send_ack_md()	d41c	Inconsistent number of acknowledges.
s_send_ack_md()	d41d	Inconsistent number of acknowledges.
s_send_ack_md()	d41e	Session Protocol Machine in illegal state.
s_unseg_send_md()	d41f	Transport send failed.
s_unseg_send_md()	d420	Transport send failed.
s_seg_send_md()	d421	Data transmission error - not enough user data.
s_seg_send_md()	d422	Data transmission error - not enough user data.
s_seg_send_md()	d423	Data transmission error.
s_seg_send_md()	d424	Data transmission error.
s_o_exp_spdu_send_md()	d425	Expedited data transmission error at transport layer.
s_o_exp_spdu_send_md()	d426	Expedited data transmission error at session layer.
s_o_ssdu_send_md()	d427	Length of user data <= 0.
s_o_ssdu_send_md()	d428	SS-user tried to send after S_PARTIAL response.
s_o_ssdu_send_md()	d429	SS-user tried to send after S_PARTIAL response.
s_send_ack_md()	d42a	Bad state for orderly release.
s_send_ack_md()	d42b	Unexpected acknowledgement.
s_unseg_send_md()	d42e	Invalid T_ACKNOWLEDGE indication.
s_send_ack_md()	d42f	Bad disconnect state for orderly abort.
s_send_suc_md()	d430	Bad disconnect state for orderly abort.
s_send_suc_md()	d431	Bad disconnect state for orderly abort.

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FUNCTION	CODE	COMMENT *(continued)*
s_o_exp_spdu_md()	d432	Cannot send EX SPDU.
s_send_suc_md()	d43a	Invalid state for an orderly release.
s_send_suc_md()	d43b	Invalid return code value from t_send.
s_send_suc_md()	d43c	Invalid send machine state.
s_i_spdu_rec_md()	d501	Failed while reading SPDU header.
s_i_spdu_rec_md()	d502	Failed while reading concatenated SPDU header.
s_i_spdu_rec_md()	d503	Extended concatenation not supported.
s_i_spdu_rec_md()	d504	Invalid return from s_i_process_spdu_md().
s_i_spdu_rec_md()	d505	Invalid return from s_i_process_spdu_md().
s_i_spdu_rec_md()	d506	Wrong state to receive a new SPDU.
s_i_decode_length()	d507	SPDU header too long for input buffer.
s_i_decode_length()	d508	Length of SPDU header wrong.
s_i_decode_length()	d509	Length of SPDU header wrong.
s_i_decode_length()	d50a	Unrecognized return code from t_receive().
s_i_PI_buf_get_md()	d50b	Failure to get PG length in SPDU header.
s_i_PI_buf_get_md()	d50c	Failure to get PG data in SPDU header.
s_i_header_get_md()	d50d	SPDU header too long for input buffer.
s_i_header_get_md()	d50e	Wrong number of bytes returned from t_receive().
s_i_header_get_md()	d50f	Unrecognized return code from t_receive().
s_i_header_get_md()	d510	Invalid length of Parameter Group data.
s_i_header_get_md()	d511	User data indicated, but reached end of SPDU.
s_i_header_get_md()	d512	Invalid SPDU header length.
s_i_header_get_md()	d513	Too many bytes in SPDU header.
s_i_header_get_md()	d514	End of SPDU header, wrong length.
s_i_data_get_md()	d515	SPDU header too long for input buffer.
s_i_data_get_md()	d516	Number of bytes in SPDU header greater than indicated.
s_i_data_get_md()	d517	Wrong number of bytes returned from t_receive().
s_i_data_get_md()	d518	End of SPDU header, wrong length.
s_i_data_get_md()	d519	Invalid return code from t_receive().
s_i_type_spdu_decode_md()	d51a	Illegal concatenation.
s_i_type_spdu_decode_md()	d51b	Illegal SPDU type.
s_i_length_PG_md()	d51c	SPDU header too long for input buffer.
s_i_length_PG_md()	d51d	Wrong number of bytes returned from t_receive().
s_i_length_PG_md()	d51e	While reading LONG SPDU header got return code of T_NEW_TSDU.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_length_PG_md()	d51f	While reading LONG SPDU header got return code of T_READ_END.
s_i_length_PG_md()	d520	While reading LONG SPDU header got invalid return code.
s_i_length_PG_md()	d521	SPDU header too long for input buffer; SPDU type is CN, AC, or RF.
s_i_length_PG_md()	d522	SPDU header too long for input buffer; SPDU type is GT, OUR_DT, PT, FN, DN, AA, or AB.
s_i_length_PG_md()	d523	Unknown SPDU type header.
s_i_trc_md()	d524	Wrong byte count from t_receive_complete().
s_i_trc_md()	d525	Illegal type of SPDU received.
s_i_trc_md()	d526	Illegal length of SPDU header.
s_i_trc_md()	d527	Failed to process concatenated SPDU.
s_i_trc_md()	d528	Illegal concatenation.
s_i_trc_md()	d529	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d52a	Illegal concatenation.
s_i_trc_md()	d52b	Failed to read in SPDU header.
s_i_trc_md()	d52c	Failed to read in concatenated SPDU header.
s_i_trc_md()	d52d	Illegal concatenation.
s_i_trc_md()	d52e	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d52f	Invalid return from s_i_PI_buf_get_md().
s_i_trc_md()	d530	Illegal SPDU type.
s_i_trc_md()	d531	Invalid return code from t_receive_complete().
s_i_trc_md()	d532	Wrong byte count from t_receive_complete().
s_i_trc_md()	d533	Failed while reading SPDU header.
s_i_trc_md()	d534	Illegal concatenation.
s_i_trc_md()	d535	Failed while reading concatenated SPDU.
s_i_trc_md()	d536	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d537	Invalid return from s_i_PI_buf_get().
s_i_trc_md()	d538	LONG SPDU header;t_receive returned T_NEW_TSDU.
s_i_trc_md()	d539	LONG SPDU header;t_receive returned T_READ_END.
s_i_trc_md()	d53a	Invalid return from t_receive_complete().
s_i_trc_md()	d53b	Wrong byte count from t_receive_complete().
s_i_trc_md()	d53c	Invalid length of SPDU header.
s_i_trc_md()	d53d	Have USER DATA;SPDU header length wrong.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_trc_md()	d53e	Illegal concatenation.
s_i_trc_md()	d53f	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d540	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d541	Failed while reading SPDU header.
s_i_trc_md()	d542	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d543	Illegal concatenation.
s_i_trc_md()	d544	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d545	Invalid return from s_i_PI_buf_get_md().
s_i_trc_md()	d546	USERDATA indicated, none present.
s_i_trc_md()	d547	USERDATA indicated, none present.
s_i_trc_md()	d548	Parameter Group length != 0; wrong.
s_i_trc_md()	d549	Wrong Parameter Group length.
s_i_trc_md()	d54a	Invalid return from t_receive_complete().
s_i_trc_md()	d54b	Illegal concatenation.
s_i_trc_md()	d54c	Failed while reading head of concatenated SPDU.
s_i_trc_md()	d54d	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d54e	Failed while reading Parameter Groups of SPDU header.
s_i_trc_md()	d54f	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d550	Illegal concatenation.
s_i_trc_md()	d551	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d552	Invalid return from s_i_PI_buf_get_md().
s_i_trc_md()	d553	Incorrect byte count in SPDU header.
s_i_trc_md()	d554	Invalid return from t_receive_complete().
s_i_trc_md()	d555	Bad byte count from t_receive_complete().
s_i_trc_md()	d556	USER DATA; bad byte count in SPDU header.
s_i_trc_md()	d557	Illegal concatenation.
s_i_trc_md()	d558	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d559	Invalid return from s_i_process_spdu_md().
s_i_trc_md()	d55a	Failed while reading Parameter Groups of SPDU header.
s_i_trc_md()	d55b	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d55c	Illegal concatenation.
s_i_trc_md()	d55d	Invalid return from s_i_process_spdu_md().

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FUNCTION	CODE	COMMENT *(continued)*
s_i_trc_md()	d55e	Failed while reading Parameter Groups of SPDU header.
s_i_trc_md()	d55f	LONG SPDU header; t_receive returned T_NEW_TSDU.
s_i_trc_md()	d560	LONG SPDU header; t_receive returned T_READ_END.
s_i_trc_md()	d561	Invalid return from t_receive_complete().
s_i_trc_md()	d562	Invalid return from t_receive_complete().
s_i_trc_md()	d563	Invalid return from t_receive_complete().
s_i_trc_md()	d564	Illegal receive state.
s_i_size_check_md()	d565	SPDU header too long for input buffer; SPDU type is CN, AC, or RF.
s_i_size_check_md()	d566	SPDU header too long for input buffer; SPDU type is OUR_DT, PT, FN, DN, AA, or AB.
s_i_size_check_md()	d567	SPDU header too long for input buffer; SPDU type is GT.
s_i_size_check_md()	d568	Unknown SPDU type header.
s_i_last_norm_data_md()	d569	Invalid return code from t_receive().
s_i_last_norm_data_md()	d56a	Illegal state - receive data.
s_i_more_norm_data_md()	d56b	Invalid return code from t_receive().
s_i_more_norm_data_md()	d56c	Illegal state - receive data.
s_i_rec_norm_data_md()	d56d	Invalid return code from t_receive().
s_i_rec_norm_data_md()	d56e	Invalid return code from t_receive().
s_i_rec_norm_data_md()	d56f	Illegal state - receive data.
s_i_process_spdu_md()	d570	Bad byte count from t_receive().
s_i_process_spdu_md()	d571	Unknown SPDU type.
s_i_process_spdu_md()	d572	Unknown SPDU type.
s_i_process_spdu_md()	d573	Illegal length of AB SPDU.
s_i_process_spdu_md()	d574	Illegal SPDU header length.
s_i_process_spdu_md()	d575	Failed while reading Parameter Groups of SPDU header.
s_i_process_spdu_md()	d576	Illegal concatenation.
s_i_process_spdu_md()	d577	Invalid return from s_i_PI_buf_get_md().
s_i_process_spdu_md()	d578	Illegal state - receive SPDU header.
s_i_concat_check_md()	d579	Illegal concatenation with a GT SPDU.
s_i_concat_check_md()	d57a	Illegal concatenation.
s_i_trc_md()	d57b	Illegal length of AB SPDU.
s_i_trc_md()	d57c	Invalid return code from t_receive().
s_i_trc_md()	d57d	Bad byte count while reading AB SPDU.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_trc_md()	d57e	Invalid return from t_receive_complete() while reading AB SPDU.
s_i_process_spdu_md()	d57f	Invalid return code while reading AB SPDU.
s_i_process_spdu_md()	d580	Bad byte count from t_receive().
s_i_trc_md()	d581	Bad state for orderly release.
s_i_rec_norm_data_md()	d582	Bad state for orderly release.
s_i_concat_check_md()	d583	Improper concatenation - RS SPDU must be concatenated with meaningless GT SPDU.
s_i_concat_check_md()	d584	Improper concatenation - RA SPDU must be concatenated with a PT SPDU.
s_i_trc_md()	d585	Failure to discard remainder of SPDU.
s_i_trc_md()	d586	Invalid return code from t_receive() when in the discard receive state.
s_i_type_spdu_decode_md()	d587	RS/RA SPDU must be concatenated with GT/PT SPDU.
s_i_trc_md()	d588	Bad state for orderly release.
s_i_ac_spdu_mi()	d601	Session Protocol Machine in (illegal) state STA01C.
s_i_ac_spdu_mi()	d602	Parsing of SPDU failed.
s_i_ac_spdu_mi()	d603	No transport connection exists.
s_i_ac_spdu_mi()	d604	Expected t_connect_confirm.
s_i_ac_spdu_mi()	d605	Invalid Session Protocol Machine state.
s_ac_parse_mi()	d606	Invalid token setting in AC SPDU.
s_ac_parse_mi()	d607	Invalid parameter group in AC SPDU.
s_ac_parse_mi()	d608	Parsing of AC SPDU failed.
s_ac_parse_mi()	d609	AC SPDU functional units specified incorrectly.
s_cn_spdu_mi()	d60a	Expected Abort Accept or Transport Disconnect Indication.
s_cn_spdu_mi()	d60b	Receiving side not transport acceptor.
s_cn_spdu_mi()	d60c	Expected t_connect_confirm.
s_cn_spdu_mi()	d60d	No transport connection exists.
s_cn_spdu_mi()	d60e	Invalid Session Protocol Machine state.
s_cn_parse_mi()	d60f	Invalid token setting in CN SPDU.
s_cn_parse_mi()	d610	Invalid duplex/half duplex choice in CN SPDU.
s_cn_parse_mi()	d611	SSAP length exceeds S_MAX_SSAP_ID_LEN.
s_cn_parse_mi()	d612	Invalid parameter group in CN SPDU.
s_cn_parse_mi()	d613	Parsing of CN SPDU failed.
s_i_rf_spdu_mi()	d614	Session Protocol Machine in illegal state (STA01C).
s_i_rf_spdu_mi()	d615	Session Protocol Machine in illegal state (STA01).
s_i_rf_spdu_mi()	d616	Expected t_connect_confirm.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_rf_spdu_mi()	d617	Session Protocol Machine in invalid state.
s_rf_parse_mi()	d618	duplex / half duplex option not specified in RF SPDU.
s_rf_parse_mi()	d619	Invalid Parameter Group in RF SPDU.
s_rf_parse_mi()	d61a	Parsing of RF SPDU failed.
s_i_c_req_mi()	d61b	User data length exceeds S_U_512_LEN.
s_i_c_req_mi()	d61c	Failed attempt to construct CN SPDU.
s_i_c_req_mi()	d61d	Failed attempt to get a transport connection.
s_i_c_req_mi()	d61e	User data length exceeds S_U_512_LEN.
s_i_c_req_mi()	d61f	Failed attempt to send CN SPDU.
s_i_c_req_mi()	d620	Failed attempt to construct CN SPDU.
s_i_c_req_mi()	d621	Sender not transport connection initiator.
s_i_c_req_mi()	d622	Session Protocol Machine in invalid state to receive connection request.
build_cn_spdu_mi()	d623	Failed attempt to add the connection id parameter field to CN spdu.
build_cn_spdu_mi()	d624	Invalid token setting in building CN SPDU.
build_cn_spdu_mi()	d625	Invalid duplex / half duplex choice.
build_cn_spdu_mi()	d626	Failed attempt to add the session user requirements field to CN spdu.
build_cn_spdu_mi()	d627	Calling ssap identifier length > S_MAX_SSAP_ID_LEN.
build_cn_spdu_mi()	d628	Called ssap identifier length > S_MAX_SSAP_ID_LEN.
add_conn_id_mi()	d629	User reference parameter length > S_REF_MAX_LEN.
add_conn_id_mi()	d62a	Common reference length parameter > S_REF_MAX_LEN.
add_conn_id_mi()	d62b	Additional reference length parameter > S_REF_MAX_LEN.
add_cn_rf_sess_req_mi()	d62c	Invalid duplex / half duplex setting.
add_cn_rf_sess_req_mi()	d62d	Invalid expedited data setting.
add_cn_rf_sess_req_mi()	d62e	Invalid CCITT subset selected.
add_ac_sess_req_mi()	d62f	Invalid duplex / half duplex setting.
add_ac_sess_req_mi()	d630	Invalid expedited data setting.
add_ac_sess_req_mi()	d631	Invalid CCITT subset selected.
s_i_cacc_rsp_connect_mi()	d632	Expected TConnect Confirm.
s_i_cacc_rsp_connect_mi()	d633	User Data length > S_U_512_LEN.
s_i_cacc_rsp_connect_mi()	d634	Failed attempt to construct AC SPDU.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_cacc_rsp_connect_mi()	d635	Failed attempt to send AC SPDU.
s_i_cacc_rsp_connect_mi()	d636	Session Protocol Machine in invalid state.
build_ac_spdu_mi()	d637	Failed attempt to add connection identifier parameter group to AC SPDU.
build_ac_spdu_mi()	d638	Invalid token setting.
build_ac_spdu_mi()	d639	Attempt to set data token in duplex mode.
build_ac_spdu_mi()	d63a	Invalid token holder setting.
build_ac_spdu_mi()	d63b	Failed to add session user requirements parameter items to an AC SPDU.
build_ac_spdu_mi()	d63c	Called ssap length > S_MAX_SSAP_ID_LEN.
s_i_crej_rsp_connect_mi()	d63d	Expected TConnect Confirm.
s_i_crej_rsp_connect_mi()	d63e	User Data length > S_U_512_LEN.
s_i_crej_rsp_connect_mi()	d63f	Failed attempt to construct RF SPDU with reuse set.
s_i_crej_rsp_connect_mi()	d640	Failed attempt to send RF SPDU with reuse set.
s_i_crej_rsp_connect_mi()	d641	Failed attempt to construct RF SPDU with no reuse set.
s_i_crej_rsp_connect_mi()	d642	Failed attempt to send RF SPDU with no reuse set.
s_i_crej_rsp_connect_mi()	d643	Session Protocol Machine in invalid state.
build_rf_spdu_mi()	d644	Invalid reason code with User Data.
build_rf_spdu_mi()	d645	Failed attempt to add connection id parameter group field to RF SPDU.
build_rf_spdu_mi()	d646	Invalid reason code with session user requirements.
build_rf_spdu_mi()	d647	Failed attempt to add session user requirements field to RF SPDU.
build_rf_spdu_mi()	d648	Illegal reason code.
s_i_t_con_connect_mi()	d649	Failed attempt to send CN SPDU.
s_i_t_con_connect_mi()	d64a	Expected T_Disconnect or Abort Accept indication.
s_i_t_con_connect_mi()	d64b	No transport connection.
s_i_t_con_connect_mi()	d64c	Illegal state for Transport Connection Confirm.
s_i_tc_ind_mi()	d64d	Failed attempt to send T_CONNECT_RESPONSE.
s_i_tc_ind_mi()	d64e	Transport connection already established.
s_i_tc_ind_mi()	d64f	Expected Abort Accept or T_Disconnect Indication.
s_i_tc_ind_mi()	d650	Illegal or invalid state to receive Transport Connection Indication.
build_ac_spdu_mi()	d651	Invalid token holder setting.

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FUNCTION	CODE	COMMENT *(continued)*
build_ac_spdu_mi()	d652	Calling ssap identifier length > S_MAX_SSAP_ID_LEN.
s_i_c_req_mi()	d653	Could not get buffer to build CN SPDU.
s_ac_parse_mi()	d654	Too much user data on version 1 AC SPDU.
s_ac_parse_mi()	d655	Enclosure item not supported on AC SPDU.
s_ac_parse_mi()	d656	AC SPDU does not contain proposed version.
s_ac_parse_mi()	d657	AC SPDU does not contain one of the proposed data mode types (duplex or half duplex).
s_ac_parse_mi()	d658	Initial sync point serial number is missing.
s_i_cn_spdu_mi()	d659	Proposed version is not supported on this SSAP.
s_i_cn_spdu_mi()	d65a	Could not find indication function due to unrecognized SSAP.
s_cn_parse_mi()	d65b	User data too large for version 1 connect SPDU.
s_cn_parse_mi()	d65c	Extended user data not valid in version 1.
s_cn_parse_mi()	d65d	Overflow parameter not supported.
s_refuse_cn_mi()	d65e	Could not get buffer for sending RF SPDU.
s_refuse_cn_mi()	d65f	Failed to build RF SPDU.
s_refuse_cn_mi()	d660	Failed to send RF SPDU.
s_rf_parse_mi()	d661	Too much user information on version 1 RF SPDU.
s_rf_parse_mi()	d662	Enclosure parameter not supported on refuse SPDU.
s_i_c_req_mi()	d663	Invalid initial sync point serial number.
s_i_c_req_mi()	d664	Initial sync point serial number must not be set if resync functional unit not proposed.
s_i_c_req_mi()	d665	Invalid initial sync point serial number.
s_i_c_req_mi()	d666	Initial sync point serial number must not be set if resync functional unit not proposed.
add_cn_rf_sess_req_mi()	d667	Invalid resync functional unit setting.
add_ac_sess_req_mi()	d668	Invalid resync functional unit setting.
s_i_cacc_rsp_connect_mi()	d669	Invalid initial sync point serial number.
s_i_cacc_rsp_connect_mi()	d66a	Serial number must be S_NO_SERNUM if resync functional unit not proposed.
build_ac_spdu_mi()	d66b	Maximum SPDU length exceeded on AC.
build_ac_spdu_mi()	d66c	AC SPDU exceeds negotiated max TSDU size.
build_rf_spdu_mi()	d66d	Maximum SPDU length exceeded on RF SPDU.
build_rf_spdu_mi()	d66e	RF SPDU exceeds negotiated max TSDU size.
s_i_ac_spdu_mi()	d66f	Failure to discard AC SPDU.
s_ac_parse_mi()	d670	SSAP length exceeds S_MAX_SSAP_ID_LEN.

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FUNCTION	CODE	COMMENT *(continued)*
s_ac_parse_mi()	d671	Token setting item missing in conditions when it is required.
s_req_connect()	d701	Indication function not specified.
s_req_connect()	d702	No connection data structure available.
s_req_connect()	d703	Session connection set up failed.
s_acc_con_res()	d704	Error processing Session Accept Request.
s_rej_con_res()	d705	Error processing Session Connect Reject.
s_send_normal()	d706	Error processing Send Normal Data Request.
s_receive()	d707	Error processing Receive Request.
s_send_exp()	d708	Error processing Send Expedited Data Request.
s_give_tokens()	d709	Error processing Give Tokens Request.
s_please_tokens()	d70a	Error processing Please Tokens Request.
s_req_rel()	d70b	Error processing Release Request.
s_resp_rel()	d70c	Error processing Release Response Request.
s_u_abort()	d70d	Error processing User Abort Request.
s_acc_con_res()	d70e	Illegal connection data structure pointer.
s_rej_con_res()	d70f	Illegal connection data structure pointer.
s_send_normal()	d710	Illegal connection data structure pointer.
s_receive()	d711	Illegal connection data structure pointer.
s_send_exp()	d712	Illegal connection data structure pointer.
s_give_tokens()	d713	Illegal connection data structure pointer.
s_please_tokens()	d714	Illegal connection data structure pointer.
s_req_rel()	d715	Illegal connection data structure pointer.
s_rel_resp()	d716	Illegal connection data structure pointer.
s_u_abort()	d717	Illegal connection data structure pointer.
s_set_uinfo()	d718	Invalid pointer to connection data structure.
s_rs_req()	d719	Invalid resync type requested - only abandon is supported.
s_rs_req()	d71a	Illegal connection data structure pointer.
s_rs_req()	d71b	Error processing resync request.
s_rs_rsp()	d71c	Illegal connection data structure pointer.
s_rs_rsp()	d71d	Error processing resync response.
s_set_timer_md()	d801	Abort timer already active on this connection.
s_gt_timer_md()	d802	Give tokens timer already active on this connection.
s_tnewtsdu_timer_md()	d803	tnewtsdu timer already active on this connection.
s_stop_timer_md()	d804	Abort timer not active on this connection.
s_timer_exp_md()	d805	Unknown timer type.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_fn_spdu_mi()	d901	Illegal state (STA01C) to receive FN SPDU.
s_i_fn_spdu_mi()	d902	Illegal reuse after SPDU collision.
s_i_fn_spdu_mi()	d903	Illegal reuse during data transfer.
s_i_fn_spdu_mi()	d904	Illegal state to receive FN SPDU.
s_fn_parse_mi()	d905	User Data > S_U_512_LEN.
s_fn_parse_mi()	d906	Illegal Parameter Identifier.
s_fn_parse_mi()	d907	FN SPDU parsing failed.
s_i_dn_spdu_mi()	d908	Illegal state (STA01C) to receive DN SPDU.
s_i_dn_spdu_mi()	d909	DN SPDU parsing failed.
s_i_dn_spdu_mi()	d90a	DN SPDU parsing error or S_P69_MI failed.
s_i_dn_spdu_mi()	d90b	Illegal state to receive DN SPDU.
s_dn_parse_mi()	d90c	User Data > S_U_512_LEN.
s_dn_parse_mi()	d90d	Illegal Parameter Identifier.
s_dn_parse_mi()	d90e	DN SPDU parsing failed.
s_i_ab_spdu_mi()	d90f	AB SPDU parsing failed.
s_i_ab_spdu_mi()	d911	Failed attempt to send Abort Accept SPDU.
s_i_ab_spdu_mi()	d912	Failed attempt to send Abort Accept SPDU.
s_i_ab_spdu_mi()	d913	Illegal/invalid state to receive AB SPDU.
s_ab_parse_mi()	d914	Missing transport disconnect parameter.
s_ab_parse_mi()	d915	Illegal parameter group or length.
s_ab_parse_mi()	d916	Illegal User Data in AB SPDU.
s_ab_parse_mi()	d917	REFLCT parameter not allowed.
s_ab_parse_mi()	d918	Illegal Parameter Identifier.
s_ab_parse_mi()	d919	AB SPDU parsing failed.
s_i_aa_spdu_mi()	d91a	Illegal state (STA01C) to receive AA SPDU.
s_i_aa_spdu_mi()	d91b	Expected TDisconnect Indication.
s_i_aa_spdu_mi()	d91c	Illegal state to receive AA SPDU.
s_i_req_mi()	d91d	Expected Abort Accept, got Release Request.
s_i_req_mi()	d91e	User Data Length > S_U_512_LEN.
s_i_req_mi()	d91f	Failed attempt to send FN, no reuse, SPDU.
s_i_req_mi()	d920	Data token not available.
s_i_req_mi()	d921	User Data Length > S_U_512_LEN.
s_i_req_mi()	d922	Failed attempt to send FN SPDU, no reuse.
s_i_req_mi()	d923	Failed attempt to send FN SPDU, with reuse.
s_i_req_mi()	d924	Data token error.
s_i_req_mi()	d925	Illegal state to receive Release Request.
s_i_racc_rsp_release_mi()	d926	Expected Abort Accept, got Release Accept Request.
s_i_racc_rsp_release_mi()	d927	Illegal value for finish request response.

FUNCTION	CODE	COMMENT *(continued)*
s_i_racc_rsp_release_mi()	d928	User Data Length > S_U_512_LEN.
s_i_racc_rsp_release_mi()	d929	Failed attempt to send DN SPDU.
s_i_racc_rsp_release_mi()	d92a	Failed attempt to send DN SPDU.
s_i_racc_rsp_release_mi()	d92b	Failed attempt to send DN SPDU.
s_i_racc_rsp_release_mi()	d92c	Illegal state to receive Release Accept Request.
s_i_racc_rsp_release_mi()	d92d	Null connection data structure pointer.
s_i_racc_rsp_release_mi()	d92e	Null connection data structure pointer.
s_i_u_abort_mi()	d92f	User Data Length > S_U_512_LEN.
s_i_td_ind_mi()	d933	Illegal state to receive TDisconnect Indication.
s_i_timer_exp_mi()	d934	Illegal state for abort timer to expire.
s_i_u_abort_mi()	d935	Illegal state.
s_i_r_req_mi()	d936	Failed to get buffer for FN SPDU.
s_i_r_req_mi()	d937	Failed to get buffer for FN SPDU.
s_i_r_req_mi()	d938	Failed to get buffer for FN SPDU.
s_i_fn_spdu_mi()	d939	Parse of FN SPDU failed due to implementation restriction.
s_fn_parse_mi()	d93a	Enclosure item not supported on FN SPDU.
s_i_dn_spdu_mi()	d93b	Parse of DN SPDU failed due to implementation restriction.
s_dn_parse_mi()	d93c	Enclosure item not supported on DN SPDU.
s_ab_parse_mi()	d93d	Enclosure item not supported on AB SPDU.
s_i_r_req_mi()	d93e	Could not build FN SPDU (no reuse) due to too much user data.
s_i_r_req_mi()	d93f	Could not build FN SPDU (no reuse) due to too much user data.
s_i_r_req_mi()	d940	Could not build FN SPDU (reuse) due to too much user data.
s_i_racc_rsp_release_mi()	d941	Could not build DN SPDU due to too much user data.
s_i_racc_rsp_release_mi()	d942	Could not build DN SPDU due to too much user data.
s_i_racc_rsp_release_mi()	d943	Could not build DN SPDU due to too much user data.
s_i_u_abort_mi()	d944	Could not build AB SPDU due to too much user data.
s_i_fn_spdu_mi()	d945	Failed to discard FN SPDU.
s_i_fn_spdu_mi()	d946	Parse of FN SPDU failed due to implementation restriction.
s_i_fn_spdu_mi()	d947	Failure to discard FN SPDU.
s_i_fn_spdu_mi()	d948	Failure to discard FN SPDU.

FUNCTION	CODE	COMMENT *(continued)*
s_i_fn_spdu_mi()	d949	Parse of FN SPDU failed due to implementation restriction.
s_i_fn_spdu_mi()	d94a	Parse of FN SPDU failed due to protocol error.
s_i_aa_spdu_mi()	d94b	Illegal state (STA01 or STA01B) to receive AA SPDU.
s_i_u_abort_mi()	d94c	Copy of abort user data from edma structure failed.
s_i_u_abort_mi()	d94d	Copy of abort user data from edma structure failed.
s_i_t_ind_md()	da01	Transport connection disconnected due to congestion.
s_i_t_ind_md()	da02	New connection data structure not allocated.
s_i_t_ind_md()	da03	No user indication function.
s_i_result_parse_md()	da04	Illegal value from indication function.
s_i_t_ind_md()	da05	Illegal connection data structure pointer.
s_i_result_parse_md()	da06	Null indication function.
s_i_result_parse_md()	da07	Null indication function.
s_i_result_parse_md()	da08	Null indication function.
s_i_result_parse_md()	da09	Null indication function.
s_i_result_parse_md()	da0a	Null indication function.
s_i_result_parse_md()	da0b	Null indication function.
s_i_result_parse_md()	da0c	Null indication function.
s_i_result_parse_md()	da0d	Null indication function.
s_i_t_ind_md()	da0e	Illegal state or return code combination for transport receive complete indication.
s_i_t_ind_md()	da0f	Illegal state or return code combination for transport receive complete indication.
s_i_result_parse_md()	da10	Null indication function.
s_i_result_parse_md()	da11	Null indication function.
s_i_result_parse_md()	da12	Invalid return code from processing a PT SPDU.
s_i_result_parse_md()	da13	Null indication function.
s_i_result_parse_md()	da14	Invalid return code from processing a PT SPDU.
s_i_result_parse_md()	da15	Null indication function.
s_i_result_parse_md()	da16	Null indication function.
s_i_result_parse_md()	da17	Null indication function.
s_parse_pi_pgi_mi()	db01	Reference Parameter length > S_REF_MAX_LEN.
s_parse_pi_pgi_mi()	db02	Additional Reference Parameter length > S_ADDREF_MAX_LEN.
s_parse_pi_pgi_mi()	db03	Reflect Parameter length > S_RFLCT_MAX_LEN.
s_parse_pi_pgi_mi()	db04	Called or Calling SSAP length > S_MAX_SSAP_ID_LEN.

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FUNCTION	CODE	COMMENT *(continued)*
s_parse_pi_pgi_mi()	db05	Protocol Options Parameter length != S_LEN_PROOPT.
s_parse_pi_pgi_mi()	db06	Invalid value for TSDU maximum size.
s_parse_pi_pgi_mi()	db07	Invalid value for Session User Reqmts Parameter.
s_parse_pi_pgi_mi()	db08	Incorrect length for token setting parameters.
s_parse_pi_pgi_mi()	db09	Incorrect length for token item parameter.
s_parse_pi_pgi_mi()	db0a	Incorrect length for transport disconnect parameter.
s_parse_pi_pgi_mi()	db0b	Zero length Reason Code Parameter.
s_parse_pi_pgi_mi()	db0c	Invalid Parameter Identifier.
s_parse_pi_pgi_mi()	db0d	Incorrect length of enclosure item parameter.
s_exq_put()	db0e	Incorrect length of expedited data SPDU.
s_exq_put()	db0f	Expedited data queue is full.
s_parse_pi_pgi_mi()	db10	User Data > S_U_512_LEN.
s_parse_pi_pgi_mi()	db11	Invalid length of extended user data field.
s_parse_pi_pgi_mi()	db12	Invalid length of version parameter field.
s_parse_pi_pgi_mi()	db13	Invalid length of serial number parameter field.
s_parse_pi_pgi_mi()	db14	Invalid character in serial number parameter field.
s_parse_pi_pgi_mi()	db15	Reason code must be one byte for any reason other than S_RUINFO.
s_parse_pi_pgi_mi()	db16	Invalid length of prepare type parameter field.
s_parse_pi_pgi_mi()	db17	Invalid prepare type.
s_parse_pi_pgi_mi()	db18	Invalid length of resync type parameter field.
s_parse_pi_pgi_mi()	db19	Invalid resync type.
s_chk_u_data()	db1a	Parse failed while looking for user data.
s_cleanup()	db1b	Discard failed while cleaning up after refuse.
s_cleanup()	db1c	Invalid receive machine state for cleaning up after refuse.
s_cleanup()	db1d	Discard failed while cleaning up after abort.
s_cleanup()	db1e	Invalid receive machine state for cleaning up after abort.
s_cleanup()	db1f	The action causing cleanup is invalid.
s_i_nrm_data_mi()	dc01	Session Protocol Machine in illegal state to send data.
s_i_dt_data_mi()	dc02	Session Protocol Machine in illegal state to receive data.
s_i_exp_data_mi()	dc03	Session Protocol Machine in illegal state to send expedited data.
s_i_ex_data_mi()	dc04	Session Protocol Machine in illegal state to receive expedited data.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_give_token_mi()	dc05	Session Protocol Machine in illegal state to send Give Tokens SPDU.
s_i_gt_spdu_mi()	dc06	Session Protocol Machine in illegal state to receive Give Tokens SPDU.
s_i_please_token_mi()	dc07	Session Protocol Machine in illegal state to send Please Tokens SPDU.
s_i_pt_spdu_mi()	dc08	Session Protocol Machine in illegal state to receive Please Tokens SPDU.
s_i_please_token_mi()	dc09	Previous Action not complete.
s_i_dt_spdu_mi()	dc0a	Error detected after receiving DT SPDU while in discard state.
s_i_dt_spdu_mi()	dc0b	Error in discarding DT SPDU when waiting after PR-AB.
s_i_give_token_mi()	dc0c	No user data allowed on version 1 GT SPDU.
s_i_give_token_mi()	dc0d	Could not get buffer to send GT SPDU.
s_i_give_token_mi()	dc0e	Maximum SPDU size exceeded on GT SPDU.
s_i_gt_spdu_mi()	dc0f	Error while discarding GT SPDU.
s_i_gt_spdu_mi()	dc10	Error while discarding GT SPDU.
s_gt_parse_mi()	dc11	Missing token item parameter on GT SPDU.
s_gt_parse_mi()	dc12	GT SPDU received when either data token not in use or token already available.
s_gt_parse_mi()	dc13	Parse of GT SPDU failed.
s_gt_parse_mi()	dc14	User data not allowed on version 1 GT SPDU.
s_gt_parse_mi()	dc15	Enclosure item not supported on GT SPDU.
s_gt_parse_mi()	dc16	Invalid parameter on GT SPDU.
s_gt_parse_mi()	dc17	Parse of GT SPDU failed.
s_i_please_token_mi()	dc18	Maximum SPDU size exceeded on PT SPDU.
s_i_pt_spdu_mi()	dc19	Error while discarding PT SPDU.
s_i_gt_spdu_mi()	dc1a	Error while discarding PT SPDU.
s_pt_parse_mi()	dc1b	Missing parameter on PT SPDU.
s_pt_parse_mi()	dc1c	PT SPDU received when data token not in use.
s_pt_parse_mi()	dc1d	Parse of PT SPDU failed.
s_pt_parse_mi()	dc1e	User data exceeds maximum allowable size for version 1 PT SPDU.
s_pt_parse_mi()	dc1f	Enclosure item not supported on PT SPDU.
s_pt_parse_mi()	dc20	Invalid parameter on PT SPDU.
s_pt_parse_mi()	dc21	Parse of PT SPDU failed.
s_i_pr_spdu_mi()	dd01	Invalid state for receiving PR-RS.
s_i_pr_spdu_mi()	dd02	Invalid state for receiving PR-RS.

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FUNCTION	CODE	COMMENT *(continued)*
s_i_pr_spdu_mi()	dd03	Invalid state for receiving PR-RS.
s_i_pr_spdu_mi()	dd04	Invalid state for receiving PR-RA.
s_i_pr_spdu_mi()	dd05	Invalid state for receiving PR-RA.
s_i_pr_spdu_mi()	dd06	PR-AB invalid for version 1 protocol.
s_i_pr_spdu_mi()	dd07	Invalid state for receiving PR-AB.
s_i_pr_spdu_mi()	dd08	Invalid prepare type.
s_i_pr_spdu_mi()	dd09	Parse of PR SPDU failed.
s_i_pr_spdu_mi()	dd0a	Invalid PR SPDU - wrong size.
s_i_rs_qst_mi()	dd0b	Resync functional unit not selected.
s_i_rs_qst_mi()	dd0c	Invalid conditions for receiving resync request.
s_i_rs_qst_mi()	dd0e	Invalid conditions for receiving resync request.
s_i_rs_qst_mi()	dd0f	Must wait until send in progress completes before making resync request.
s_i_rs_qst_mi()	dd10	Failed to build RS SPDU.
s_i_rs_qst_mi()	dd11	Failed to send PR-RS SPDU.
s_i_rs_qst_mi()	dd12	Failed to send RS SPDU.
s_i_rs_qst_mi()	dd13	Invalid or unsupported resync type on resync request.
s_i_rs_qst_mi()	dd14	Invalid state for receiving resync request.
build_rs_spdu_mi()	dd15	Invalid token setting in RS request.
build_rs_spdu_mi()	dd16	Token setting missing in resync request when half duplex functional unit selected.
build_rs_spdu_mi()	dd17	Invalid or missing serial number in resync request.
build_rs_spdu_mi()	dd18	Too much user data for version 1 resync request.
build_rs_spdu_mi()	dd19	Resync request exceeds max SPDU size.
build_rs_spdu_mi()	dd1a	Resync request exceeds max TSDU size.
s_i_rs_rsp_mi()	dd1b	Serial number on resync response request does not match serial number on RS(a) indication.
s_i_rs_rsp_mi()	dd1c	Resync response requested before action completed for previous request.
s_i_rs_rsp_mi()	dd1d	Failure to build RA SPDU.
s_i_rs_rsp_mi()	dd1e	Failure in sending expedited PR-RA SPDU.
s_i_rs_rsp_mi()	dd1f	Failure to send RA SPDU.
s_i_rs_rsp_mi()	dd20	Illegal state for SS user to request a resync response.
build_ra_spdu_mi()	dd21	Illegal token setting on resync response.
build_ra_spdu_mi()	dd22	Illegal token setting on resync response.
build_ra_spdu_mi()	dd23	Illegal token setting on resync response.
build_ra_spdu_mi()	dd24	Token setting is missing on resync response.
build_ra_spdu_mi()	dd25	Illegal serial number on resync response.

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FUNCTION	CODE	COMMENT *(continued)*
build_ra_spdu_mi()	dd26	Too much user data for version 1 resync response.
build_ra_spdu_mi()	dd27	Resync response exceeds max SPDU size.
build_ra_spdu_mi()	dd28	Resync response exceeds max TSDU size.
s_i_rs_spdu_mi()	dd29	Discard of RS SPDU failed.
s_i_rs_spdu_mi()	dd2a	Invalid conditions for receiving RS SPDU.
s_i_rs_spdu_mi()	dd2b	Discard of RS SPDU failed.
s_i_rs_spdu_mi()	dd2c	Invalid conditions for receiving RS SPDU, or parse of RS SPDU failed.
s_i_rs_spdu_mi()	dd2d	Discard of RS SPDU failed.
s_i_rs_spdu_mi()	dd2e	Invalid conditions for receiving RS SPDU, or parse of RS SPDU failed.
s_i_rs_spdu_mi()	dd2f	Illegal state to receive RS SPDU.
s_rs_parse_mi()	dd30	Illegal token setting in RS SPDU.
s_rs_parse_mi()	dd31	Too much user data on RS SPDU for session protocol version 1.
s_rs_parse_mi()	dd32	Enclosure item not supported on RS SPDU.
s_rs_parse_mi()	dd33	Illegal parameter type on RS SPDU.
s_rs_parse_mi()	dd34	Parse of parameter on RS SPDU failed.
s_rs_parse_mi()	dd35	RS SPDU is missing mandatory resync type parameter.
s_rs_parse_mi()	dd36	RS SPDU is missing mandatory serial number parameter.
s_rs_parse_mi()	dd37	RS SPDU is missing token setting parameter in conditions when this parameter is mandatory.
s_i_ra_spdu_mi()	dd38	Discard of RA SPDU failed.
s_i_ra_spdu_mi()	dd39	Invalid conditions for receiving RA SPDU, or parse of RA SPDU failed.
s_i_ra_spdu_mi()	dd3a	Invalid conditions for receiving RA SPDU, or parse of RA SPDU failed.
s_i_ra_spdu_mi()	dd3b	Illegal state to receive RA SPDU.
s_ra_parse_mi()	dd3c	Conflicting token setting in RA SPDU.
s_ra_parse_mi()	dd3d	Conflicting token setting in RA SPDU.
s_ra_parse_mi()	dd3e	Illegal token setting in RA SPDU.
s_ra_parse_mi()	dd3f	Too much user data in RA SPDU.
s_ra_parse_mi()	dd40	Enclosure item not supported on RA SPDU.
s_ra_parse_mi()	dd41	Illegal parameter type on RA SPDU.
s_ra_parse_mi()	dd42	Parse of parameter on RA SPDU failed.
s_ra_parse_mi()	dd43	RA SPDU is missing mandatory serial number parameter.

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FUNCTION	CODE	COMMENT *(continued)*
s_ra_parse_mi()	dd44	RA SPDU is missing token setting parameter in conditions when this parameter is mandatory.

AP HANDLER

SOURCE	FUNCTION	CODE	COMMENT
pinitap3.c	pinitap3	df00	Call to IODRV space controller for memory failed.
pinitap3.c	pinitap3	df01	APH could not attach application type to SSAP.
pmsgap3.c	pmsgap3	df01	APH could not attach application type to SSAP.
archive.c	arch_lib	df02	ECD access of aphuser record for archive user requesting a connection returned IDNULL or IDERROR.
as_op_cl.c	as_open	df02	ECD access of aphuser record returned IDNULL or IDERROR.
asi_funcs.c	as_con_ind	df02	ECD access of aphuser record that an indication is to go to returned IDNULL or IDERROR.
as_op_cl.c	as_open	df0e	alloc_mdct failed in as_open().
asi_funcs.c	as_con_ind	df0f	alloc_mdct failed in as_con_ind().

SCSD HANDLER

FUNCTION	CODE	COMMENT
prspsd3.c	e001	pushq1 failure.
pmsgsd3.c	e001	pushq1 failure.
sc_func.c	e001	pushq1 failure.
scsd.c	e102	No timing available.
prstsd3.c	e205	PC restoral failed.
sc_func.c	e206	Illegal internal state in sc_rst().
prspsd3.c	e503	Cannot allocate message.
prspsd3.c	e504	Failed to get port of Admin.
prspsd3.c	e506	Failed to send message to Admin.
prspsd3.c	e507	Unrecognized response from PC.
pmsgsd3.c	e701	Number of UCB pointers greater than one.
pmsgsd3.c	e707	Illegal point number.
pmsgsd3.c	e708	Illegal operation.
pmsgsd3.c	e709	Received unrecognized message.

FUNCTION	CODE	COMMENT *(continued)*
`pgrowsd3.c`	`e801`	Cannot allocate message.
`sc_admin.c`	`e902`	Bad port number used for Admin attach.
`prspsd3.c`	`eaxx`	PC returned error: code in low order bits (see completion codes).

PP HANDLER

Each error code is of the form *SNN*, where *S* is the severity of the error and *NN* is an error identifier unique within the given severity level.

The severity of an error will be one of the following:

`0` - Minor error. Either a resource was exhausted, a procedural error was committed, or a minor software error was encountered. In the second two cases, the user may proceed normally, though if a software error occurred, some resources may have been lost.

These messages print at level 2.

`1` - Association fatal error. An application association has gone insane. PPH will fail all send or receive requests from the user of the association until PPH is reinitialized, and any indication received by the association will result in an abort. Since the damage was limited to only the single association, other associations may proceed normally, though some resources may have been lost. Note that the affected user process may hang when errors of this sort occur. Each process will receive an E_ABORT event if the PPH is reinitialized. It is the process' responsibility to clean up and exit when this event is received.

These messages print at level 1.

`2` - PPH fatal error. PPH's global data structures have become inconsistent or corrupted. All associations will be locked up, and PPH will fail all send and receive requests from any user until PPH is reinitialized. An indication received for any association will result in an abort. Note that some or all user processes may hang when errors of this sort occur. Each process will receive an E_ABORT event if the PPH is reinitialized. It is the process' responsibility to clean up and exit when this event is received.

These messages print at level 1.

If a severity `1` or `2` error is encountered, contact the first level of technical support for instructions on how to reinitialize the PPH.

FUNCTION	CODE	COMMENT
acse_pm	f001	Unexpected or invalid ACSE indication; aborting association.
a_ascreq_idle	f002	Could not get pphuser record.
a_pascrsp_w_assoc_rsp	f003	Could not get ACSE Implementation Information.
a_nascrsp_w_assoc_rsp	f004	Could not get ACSE Implementation Information.
a_aarq_idle	f005	Error decoding AARQ; aborting association.
a_aarq_idle	f006	ACSE version not supported; refusing association.
a_aarq_idle	f007	Could not map to ACSE user; refusing association.
a_aarep_w_aare	f008	Error decoding AARE; aborting association.
a_aarep_w_aare	f009	Invalid ACSE version; aborting association.
a_aarep_w_aare	f00a	Invalid ACSE association result; aborting association.
a_aaren_w_aare	f00b	Error decoding AARE; aborting association.
a_aaren_w_aare	f00c	Invalid ACSE association result; aborting association.
a_aaren_w_aare	f00d	Invalid ACSE result source diagnostic; aborting association.
a_aaren_w_aare	f00e	ACSE Called Application Entity Invocation Identifier not recognized; aborting association.
a_rlrq_assoc	f00f	Error decoding RLRQ--APPLICATION 1 tag not present; aborting association.
a_rlrq_assoc	f010	Error decoding RLRQ--APPLICATION 1 tag not present; aborting association.
a_rlrq_assoc	f011	Error decoding RLRQ; aborting association.
a_rlrep	f012	Error decoding RLRE--APPLICATION 1 tag not present; aborting association.
a_rlrep	f013	Error decoding RLRE--APPLICATION 1 tag not present; aborting association.
a_rlrep	f014	Error decoding RLRE; aborting association.
a_p_2uabind_anybut_idle	f015	Error decoding ABRT; aborting association.
a_getrqevt	f016	Invalid read queue primitive; aborting association.
p_sindics	f017	Invalid session indication--ignored.
p_sindics	f018	Indication received while PPH fatal error condition exists; aborting connection.
p_sindics	f019	Presentation connection data structure invalid or all structures exhausted; aborting connection.
p_sindics	f01a	Indication received while association fatal error condition exists; aborting connection.
p_sindics	f01b	Indication structures exhausted; aborting connection.

FUNCTION	CODE	COMMENT *(continued)*
p_sindics	f01c	Unexpected session indication received while another is pending; aborting connection.
p_sindics	f01d	Could not set session user information; aborting connection.
p_sindics	f01e	Could not free presentation connection data structure.
p_sindics	f01f	Encoded connect PDU header buffers exhausted; aborting connection.
p_sindics	f020	Could not free presentation connection data structure.
p_sindics	f021	Decoded connect PDU header buffers exhausted; aborting connection.
p_sindics	f022	Could not free presentation connection data structure.
p_sindics	f023	Could not receive connect PDU headers; connection is gone.
p_sindics	f024	Encoded connect PDU header buffers exhausted; aborting connection.
p_sindics	f025	Decoded connect PDU header buffers exhausted; aborting connection.
p_sindics	f026	Could not receive connect confirm PDU headers; connection is gone.
p_sindics	f027	Encoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f028	Decoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f029	Could not receive abort PDU headers; connection is gone.
p_sindics	f02a	Encoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f02b	Decoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f02c	Could not receive release PDU headers; connection is gone.
p_sindics	f02d	Encoded resynchronize PDU header buffers exhausted; aborting connection.
p_sindics	f02e	Decoded resynchronize PDU header buffers exhausted; aborting connection.
p_sindics	f02f	Could not receive resynchronize PDU headers; connection is gone.

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FUNCTION	CODE	COMMENT *(continued)*
p_sindics	f030	Received send acknowledgement when no user was attached; aborting connection.
p_sindics	f031	Received send acknowledgement when no user was attached; aborting connection.
p_sindics	f032	Could not free presentation connection data structure.
p_sindics	f033	Could not free presentation connection data structure.
p_sindics	f034	Could not free presentation connection data structure.
p_sindics	f035	Invalid action complete indication--ignored.
p_sindics	f036	Encoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f037	Decoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f038	Could not receive PDU headers; connection is gone.
p_give_sindic	f039	Decoded connect PDU header buffer was not allocated.
p_give_sindic	f03a	Could not free presentation connection data structure.
p_give_sindic	f03b	Fatal error occurred after passing up session indication.
p_free_pdu_buffers	f03c	Encoded connect PDU header buffer not allocated.
p_free_pdu_buffers	f03d	Decoded connect PDU header buffer not allocated.
p_free_pdu_buffers	f03e	Encoded abort PDU header buffer not allocated.
p_free_pdu_buffers	f03f	Decoded abort PDU header buffer not allocated.
p_free_pdu_buffers	f040	Encoded resynchronize PDU header buffer not allocated.
p_free_pdu_buffers	f041	Decoded resynchronize PDU header buffer not allocated.
p_free_pdu_buffers	f042	Invalid indication type; buffer not freed.
p_no_hdr_cleanup	f043	Could not free presentation connection data structure.
p_no_hdr_cleanup	f044	Invalid indication; PDU header buffers not freed and abort indication not sent.
p_no_hdr_cleanup	f045	Encoded abort PDU header buffers exhausted; aborting connection.
p_no_hdr_cleanup	f046	Decoded abort PDU header buffers exhausted; aborting connection.
a_dabort	f047	Unexpected user abort output PDU header buffer.

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FUNCTION	CODE	COMMENT *(continued)*
setup_edma	f048	Could not map user buffer.
p_add_tag	f049	Could not map user buffer.
pinitpp3	f04a	Unrecognized initialization type--ignored.
p_sindics	f04b	Could not discard data; connection is gone.
pmsgpp3	f04c	Process died with association waiting; aborting association.
si_detach	f04d	Detached while association waiting; aborting association.
pph_memory	f04e	Could not attach to SSAP.
pph_memory	f04f	ECD access error; may have unattached SSAPs.
pph_memory	f050	Too many pphuser records; excess records ignored.
si_close	f051	Closed while association waiting; aborting association.
pmsgpp3	f053	Could not map control buffer; read request failed.
pmsgpp3	f054	Could not map control buffer; write request failed.
pmsgpp3	f055	Could not map control buffer; detach request may or may not have failed.
pmsgpp3	f056	Invalid RC/V operation type--ignored.
pmsgpp3	f057	Could not attach to new SSAP--ignored.
pmsgpp3	f058	ECD access error; pphuser insertion ignored.
pmsgpp3	f059	ACSE user information structures exhausted; pphuser insertion ignored.
pmsgpp3	f05a	Could not attach to new SSAP--ignored.
pmsgpp3	f05b	Unrecognized pphuser record; update ignored.
pmsgpp3	f05c	ECD access error; pphuser update ignored.
pmsgpp3	f05d	Invalid RC/V operation type--ignored.
pmsgpp3	f05e	Unexpected ECD record type--ignored.
pmsgpp3	f05f	No presentation connection data structure corresponding to MSACK; association may have been previously aborted.
pmsgpp3	f060	Received MSACK for unexpected message type, or process creation failed.
pph_restart	f061	Detach failed or caused an active session connection to be aborted.
si_req_ack	f062	Could not map control buffer; user request failed.
pph_ssap_detach	f063	Detach failed or caused an active session connection to be aborted.
pph_ssap_detach	f064	Active user forcibly detached.
pph_ssap_detach	f065	Waiting user forcibly detached.

FUNCTION	CODE	COMMENT *(continued)*
pph_ssap_detach	f066	Waiting association discarded because of a detach.
si_dequeue	f067	Queue corrupted; dequeue failed.
pres_pm	f068	Unexpected or invalid presentation layer indication; aborting connection.
p_cp_idle	f069	Error decoding CP; aborting connection.
p_cp_idle	f06a	Could not get pphuser record; refusing connection.
p_cp_idle	f06b	Called presentation address unknown; refusing connection.
p_cp_idle	f06c	Called presentation address unknown; refusing connection.
p_cp_idle	f06d	Presentation version not supported; refusing connection.
p_cp_idle	f06e	ACSE presentation context not found or transfer syntax not supported; refusing connection.
p_cpa_w_cpar	f06f	Error decoding CPA; aborting connection.
p_cpa_w_cpar	f070	Presentation version not supported; aborting connection.
p_cpa_w_cpar	f071	Presentation context definition result list not present; aborting connection.
p_cpa_w_cpar	f072	Presentation requirements not supported; aborting connection.
p_cpr_w_cpar	f073	Error decoding CPR; aborting connection.
p_cpr_w_cpar	f074	Presentation context definition result list not present; aborting connection.
p_arp_anybut_idle	f075	Error decoding ARP; aborting connection.
p_arp_anybut_idle	f076	Invalid presentation provider abort reason; aborting connection.
p_aru_anybut_idle	f077	Error decoding ARU; aborting connection.
p_rsyncind_dx	f078	Error decoding RS; aborting connection.
p_rsynccnf_dx	f079	Error decoding RSA; aborting connection.
p_getrqevt	f07a	Error in processing presentation indication; aborting connection.
p_getrqevt	f07b	Invalid session primitive; aborting connection.
si_attach	f07c	ACSE/PL user structures exhausted; attach failed.
si_attach	f07d	ECD access error; attach failed.
si_detach	f07e	Could not free ACSE/PL user structure.
si_detach	f07f	Unexpected ACSE/PL user structure; detach failed.
pp_get_p_con_data	f080	Presentation connection data structures exhausted.

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FUNCTION	CODE	COMMENT *(continued)*
pp_get_p_con_data	f081	Presentation connection data structure corrupted; discarding structure.
pp_free_p_con_data	f082	Invalid presentation connection data structure--ignored.
pp_free_p_con_data	f083	Unexpected user abort output PDU header buffer.
pp_free_p_con_data	f084	Indication queue corrupted; discarding presentation connection data structure.
pp_get_acse_pl_user	f085	ACSE/PL user structures exhausted.
pp_fr_acse_pl_user	f086	Invalid ACSE/PL user structure--ignored.
pp_fr_acse_pl_user	f087	Could not map control buffer; user request failed.
si_cbuf_size	f088	Invalid ACSE/PL indication.
si_open	f089	Process information structures exhausted; open failed.
si_close	f08a	Could not free ACSE/PL user structure.
si_enq_indic	f08b	Could not free ACSE/PL user structure.
si_prc_recv	f08c	Invalid ACSE/PL indication; aborting association.
si_prc_recv	f08d	Could not map control buffer; receive request failed.
si_prc_recv	f08e	Could not map user buffer; receive request failed.
si_prc_recv	f08f	Could not receive user data; association is gone.
si_cmp_recv	f090	Error decoding user data; aborting association.
si_cmp_recv	f091	User data overran buffer trailer area; aborting association.
si_cmp_recv	f092	Data present beyond end of PDUs; aborting association.
si_cmp_recv	f093	Invalid ACSE/PL indication; aborting association.
si_cmp_recv	f094	Could not acknowledge user request and data may have been lost; aborting association.
si_fr_inbuf	f095	Encoded connect PDU header buffer not found.
si_fr_inbuf	f096	Decoded connect PDU header buffer not found.
si_fr_inbuf	f097	Encoded abort PDU header buffer not found.
si_fr_inbuf	f098	Decoded abort PDU header buffer not found.
si_fr_inbuf	f099	Encoded resynchronize PDU header buffer not found.
si_fr_inbuf	f09a	Decoded resynchronize PDU header buffer not found.
si_fr_inbuf	f09b	Invalid ACSE/PL indication.
si_ack_recv	f09c	Could not receive user data; aborting association.
si_udata_present	f09d	Invalid ACSE/PL indication.

FUNCTION	CODE	COMMENT *(continued)*
si_dec_trailers	f09e	Error decoding ABRT trailer; aborting association.
si_dec_trailers	f09f	Error decoding ARU PDV-list trailer; aborting association.
si_dec_trailers	f0a0	Error decoding ARU trailer; aborting association.
si_dec_trailers	f0a1	Error decoding RLRQ trailer; aborting association.
si_dec_trailers	f0a2	Error decoding RLRQ PDV-list trailer; aborting association.
si_dec_trailers	f0a3	Error decoding RLRE trailer; aborting association.
si_dec_trailers	f0a4	Error decoding RLRE PDV-list trailer; aborting association.
si_dec_trailers	f0a5	Error decoding AARQ trailer; aborting association.
si_dec_trailers	f0a6	Error decoding AARQ PDV-list trailer; aborting association.
si_dec_trailers	f0a7	Error decoding CP trailer; aborting association.
si_dec_trailers	f0a8	Presentation mode not supported; aborting association.
si_dec_trailers	f0a9	Error decoding AARE trailer; aborting association.
si_dec_trailers	f0aa	Error decoding AARE PDV-list trailer; aborting association.
si_dec_trailers	f0ab	Error decoding CPA trailer; aborting association.
si_dec_trailers	f0ac	Presentation mode not supported; aborting association.
si_dec_trailers	f0ad	Error decoding AARE trailer; aborting association.
si_dec_trailers	f0ae	Error decoding AARE PDV-list trailer; aborting association.
si_dec_trailers	f0af	Error decoding CPR trailer; aborting association.
si_dec_trailers	f0b0	Error decoding RS trailer; aborting association.
si_dec_trailers	f0b1	Error decoding RSA trailer; aborting association.
si_dec_trailers	f0b2	Unexpected provider abort PDU trailers.
si_dec_trailers	f0b3	Unexpected data, expedited data, give token, or please token PDU trailers.
si_dec_trailers	f0b4	Invalid ACSE/PL indication.
si_end_data	f0b5	Invalid ACSE/PL indication.
si_end_data	f0b6	Could not map user buffer and data may have been lost; aborting association.
si_more_data	f0b7	More data result received for unexpected indication type; aborting association.
si_more_data	f0b8	Could not map control buffer and data may have been lost; aborting association.
si_map_assoc	f0b9	No user found to receive association indication.

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FUNCTION	CODE	COMMENT *(continued)*
si_map_assoc	f0ba	Could not get ucb record for process creation.
si_map_assoc	f0bb	ECD access error.
si_map_assoc	f0bc	Could not allocate process creation message.
si_map_assoc	f0bd	Could not send process creation message.
si_prc_send	f0be	Could not map control buffer; failing send request.
si_prc_send	f0bf	Presentation connection data structures exhausted; failing association request.
si_prc_send	f0c0	Unexpected encoded abort PDU header buffer.
si_prc_send	f0c1	Encoded abort PDU header buffers exhausted.
si_prc_send	f0c2	Unexpected encoded connect PDU header buffer.
si_prc_send	f0c3	Encoded connect PDU header buffers exhausted.
si_fr_outbuf	f0c4	Encoded abort PDU header buffer not found.
si_fr_outbuf	f0c5	Encoded connect PDU header buffer not found.
si_fr_outbuf	f0c6	Invalid ACSE/PL indication.
si_abt_comp	f0c7	Could not free ACSE/PL user structure.
si_abt_ind	f0c8	Could not map control buffer; failing send request.
si_resync_ind	f0c9	Could not map control buffer; failing send request.
si_resync_ind	f0ca	Could not map control buffer; failing send request.
si_resync_ind	f0cb	Could not map control buffer; failing send request.
si_resync_ind	f0cc	Could not map control buffer; failing send request.
si_send_abt	f0cd	Unexpected generated abort failure or process created user died without closing.
si_send_abt	f0ce	Unexpected generated abort failure.
si_send_abt	f0cf	Unexpected generated abort failure.
si_send_abt	f0d0	Unexpected generated abort failure.
si_send_abt	f0d1	Unexpected generated abort failure.
si_send_abt	f0d2	Unexpected generated abort failure.
si_send_abt	f0d3	Invalid return code from ACSE protocol machine.
si_snd_pabt	f0d4	Unexpected generated abort failure.
si_snd_pabt	f0d5	Unexpected generated abort failure.
si_snd_pabt	f0d6	Unexpected generated abort failure.
si_snd_pabt	f0d7	Unexpected generated abort failure.
si_snd_pabt	f0d8	Unexpected generated abort failure.
si_snd_pabt	f0d9	Unexpected generated abort failure.
si_snd_pabt	f0da	Invalid return code from ACSE protocol machine.
pp_discard	f0db	Could not receive data to be discarded; association is gone.
si_deq_msg	f0dc	Data corruption in ACSE/PL user queue; PPH will be restarted.

FUNCTION	CODE	COMMENT *(continued)*
si_deq_msg	f0dd	Hanging ACSE/PL user may occur after PPH is restarted.
flshmpp3	f0de	Data corruption in ACSE/PL user's receive queue; PPH will be restarted.
flshmpp3	f0df	Hanging ACSE/PL user may occur after PPH is restarted.
pph_init	f0e0	ECD access error; unable to get messages count from btparm record.
p_sindics	f101	Presentation connection data structure corrupted; discarding structure and aborting connection.
p_sindics	f102	Waiting indication queue corrupted; abort indication ignored.
p_sindics	f103	Indication free queue corrupted; abort indication ignored.
p_sindics	f104	Presentation connection data structure corrupted; discarding structure and aborting connection.
p_sindics	f105	Indication free queue corrupted; discarding presentation connection data structure.
p_sindics	f106	Indication free queue corrupted; discarding presentation connection data structure.
p_sindics	f107	Indication free queue corrupted; discarding presentation connection data structure.
p_sindics	f108	Waiting indication queue corrupted; receive acknowledgement indication ignored.
p_sindics	f109	Waiting indication queue corrupted.
p_sindics	f10a	Waiting indication queue corrupted.
p_s_rs_req	f10b	Receive request queue corrupted.
p_s_rs_req	f10c	Indication queue corrupted.
pp_fr_waiting_indics	f10d	Waiting indication queue corrupted.
pp_fr_waiting_indics	f10e	Waiting indication queue corrupted.
si_enq_recv	f10f	Receive request queue corrupted; receive request failed.
si_enq_indic	f110	Receive request queue corrupted; receive request failed.
si_enq_indic	f111	Indication queue corrupted; discarding presentation connection data structure.
si_prc_recv	f112	Indication queue corrupted; receive request failed.
si_recv_error	f113	Indication queue corrupted; no abort sent.
si_recv_error	f114	Receive request queue corrupted; no abort sent.
si_enq_send	f115	Send request queue corrupted; request failed.

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FUNCTION	CODE	COMMENT *(continued)*
si_resync_ind	f116	Send request queue corrupted; failing send request.
si_resync_ind	f117	Send request queue corrupted; failing send request.
acse_pm	f201	ACSE double abort finite state machine entry not found.
acse_pm	f202	Internally generated ACSE finite state machine entry not found.
p_sindics	f203	ACSE/PL user structure queue corrupted; action complete indication ignored.
p_sindics	f204	Presentation connection data structure queue corrupted; action complete indication ignored.
p_sindics	f205	Presentation connection data structure queue corrupted; action complete indication ignored.
p_sindics	f206	Received action complete indication when no user was attached; indication ignored.
p_sindics	f207	Received receive complete indication when no user was attached; indication ignored.
p_give_sindic	f208	Invalid return code from presentation layer protocol machine.
p_gen_cpr	f209	Could not encode generated CPR.
p_p_dabort	f20a	Could not encode generated ARP.
p_p_dabort	f20b	Could not set up EDMA for generated ARP.
a_gen_aaren	f20c	Could not encode generated refuse AARE.
a_gen_aaren	f20d	Could not set up EDMA for generated refuse AARE.
a_gen_aaren	f20e	Could not send generated refuse AARE.
a_dabort	f20f	Could not encode generated ABRT.
a_dabort	f210	Could not set up EDMA for generated ABRT.
a_dabort	f211	Could not send generated ABRT.
pph_memory	f212	ACSE user information table corrupted.
pp_mem_complete	f213	Invalid dynamic memory type; initialization failed.
pp_mem_complete	f214	Incorrect amount of dynamic memory; initialization failed.
pp_mem_complete	f215	Invalid dynamic memory type; initialization failed.
pmsgpp3	f216	ACSE user information structure queue corrupted.
pmsgpp3	f217	ACSE user information structure queue corrupted.
pmsgpp3	f218	ACSE user information structure queue corrupted.
pph_ssap_detach	f219	Presentation connection data structure queue corrupted.

FUNCTION	CODE	COMMENT *(continued)*
pph_ssap_detach	f21a	ACSE/PL user structure queue corrupted.
pph_ssap_detach	f21b	ACSE/PL user structure queue corrupted.
pph_ssap_detach	f21c	Presentation connection data structure queue corrupted.
pres_pm	f21d	Presentation double abort finite state machine entry not found; aborting connection.
pres_pm	f21e	Internally generated presentation finite state machine entry not found; aborting connection.
si_attach	f21f	Presentation connection data structure queue corrupted; attach failed.
si_detach	f220	Process information structure not found; detach failed.
si_detach	f221	ACSE/PL user structure queue corrupted; detach failed.
pp_fr_acse_pl_user	f222	ACSE/PL user structure still linked to presentation connection data structure.
si_close	f223	ACSE/PL user structure queue corrupted.
si_close	f224	Process information structure queue corrupted.
si_enq_indic	f225	Presentation connection data structure queue corrupted.
si_enq_indic	f226	Presentation connection data structure queue corrupted.
si_enq_indic	f227	ACSE/PL user structure queue corrupted.
si_cmp_recv	f228	Presentation connection data structure queue corrupted.
si_cmp_recv	f229	ACSE/PL user structure queue corrupted.
si_map_assoc	f22a	ACSE/PL user structure queue corrupted.
si_prc_send	f22b	ACSE/PL user structure not found or queue is corrupted.
si_prc_send	f22c	ACSE/PL user structure queue corrupted.
si_prc_send	f22d	Presentation connection data structure queue corrupted.
si_prc_pm_result	f22e	Unexpected return code from protocol machine.
si_prc_pm_result	f22f	Presentation connection data structure queue corrupted.
si_prc_pm_result	f230	ACSE/PL user structure queue corrupted.
si_cmp_send	f231	Presentation connection data structure queue corrupted.
si_cmp_send	f232	ACSE/PL user structure queue corrupted.

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FUNCTION	CODE	COMMENT *(continued)*
si_abt_comp	f233	Presentation connection data structure queue corrupted.
si_abt_comp	f234	ACSE / PL user structure queue corrupted.
si_send_abt	f235	Presentation connection data structure queue corrupted.
si_snd_pabt	f236	ACSE / PL user structure queue corrupted.
si_snd_pabt	f237	Presentation connection data structure queue corrupted.
pph_init	f238	Exceeded dynamic memory limit; initialization failed.
pph_memory	f239	Could not allocate dynamic memory; initialization failed.
pph_memory	f23a	Could not allocate timer; initialization failed.
pp_ecd_init_info	f23b	ECD access error; initialization failed.
pp_ecd_init_info	f23c	ECD access error; initialization failed.

BXSL HANDLER		
modglob.c	e1	A signal has been delivered to a locked model. Model name, signal number, and state of the model are given. Format of additional string information is defined as: m4:*p q r p* = A string of model name. *q* = Signal in hexadecimal. *r* = Major control block's state in decimal.
modglob.c	e2	A signal is not recognized by a model. Model name, signal number, and state of the model are given. Format of additional string information is defined as: m4:*p q r p* = A string of model name. *q* = Signal in hexadecimal. *r* = Major control block's state in decimal.
modglob.c	e3	A signal is sent from a major model to a submodel that has not been invoked. Hex code for the major model, state of the major model, and signal number are given. Format of additional string information is defined as: m4:*p q r p* = Major model in hexadecimal. *q* = State of the major model in decimal. *r* = Signal in hexadecimal.

FUNCTION	CODE	COMMENT *(continued)*
modglob.c	e4	A major model attempted to invoke a submodel that is already invoked. Address of the major model and state of the major model are given. Format of additional string information is defined as: m4: *p q p* = Model control function's program address in hexadecimal. *q* = Model control block's state in decimal.
pmsgsl3.C	e5	The model failed to free an scb from the user. Some scb structures may be orphaned.
modglob.c	f0	Idle_model() was called with a Session Control Block address of NULL. Return address of the caller is given. Format of additional string information is defined as: m4: *p p* = Idle_model() return address in hexadecimal.
modglob.c	f1	Idle_model() was called with a Session Control Block still joined to the user. Address of the model and state of the model is given. Format of additional string information is defined as: m4: *p q p* = Model control function's program address in hexadecimal. *q* = Model control block's state in decimal.
modglob.c	f2	Idle_model() was called with a Session Control Block still joined to the circuit. Address of the model and state of the model is given. Format of additional string information is defined as: m4: *p q p* = Model control function's program address in hexadecimal. *q* = Model control block's state in decimal.
modglob.c	f3	Idle_model() was called and the Input submodel has not been updated to idle. Address of the input submodel, state of the input submodel, address of the major model, and state of the major model are given. Format of additional string information is defined as: m4: *p q r s p* = Input model control function's program address in hexadecimal. *q* = Input model control block's state in decimal. *r* = Model control function's program address in hexadecimal. *s* = Model control block's state in decimal.

FUNCTION	CODE	COMMENT *(continued)*
`modglob.c`	`f4`	`Idle_model()` was called and the Output submodel has not been updated to idle. Address of the output submodel, state of the output submodel, address of the major model, and state of the major model are given. Format of additional string information is defined as: `m4`: *p q r s p* = Output model control function's program address in hexadecimal. *q* = Output model control block's state in decimal. *r* = Model control function's program address in hexadecimal. *s* = Model control block's state in decimal.
`modglob.c`	`f5`	`Idle_model()` was called and the auxiliary input buffer has not been released. Address and state of the model are given. Format of additional string information is defined as: `m4`: *p q p* = Model control function's program address in hexadecimal. *q* = Model control block's state in decimal.
`modglob.c`	`f6`	`Idle_model()` was called and a timer is still running. The timer type, address and state of the model are given. Format of additional string information is defined as: `m4`: *p q r p* = Session control block's timer type in hexadecimal. *q* = Output model control function's program address in hexadecimal. *r* = Output model control block's state in decimal.
`modglob.c`	`f7`	`Idle_model()` was called and the Session Control Block is still on the list of pcreated processes. Address of the model and state of the model are given. Format of additional string information is defined as: `m4`: *p q p* = Model control function's program address in hexadecimal. *q* = Model control block's state in decimal.
`sltime.C`	`7`	Current timer index in SCB is not the same as the time-out index. Format of additional string information is defined as: `TIM`: *p q p* = Current timer index in hexadecimal; *q* = Time-out index in hexadecimal. Connect id mapping failed. Format of additional string information is defined as: `Tmapfail`: *p p* = Session connect id in hexadecimal;

SPECIAL WARNING MESSAGES

CODE	COMMENT
`fff01`	No responses to process in interrupt entry.

CODE COMMENT *(continued)*

`fff02`	Response not properly passed to handler (lost).
`fff03`	Resp queue ul pointer written by someone other than IODRV.

The output of all of the above error codes can be controlled by the `SET:IODRV` and `CLR:IODRV` input commands.

ID . . . . . APP-IOP-APPG
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

ERROR CODES RETURNED BY THE MAINTENANCE HANDLER (ERRWD)

NOTE: The codes are in hexadecimal.

`iomaint.c`	`01`	`ucbptr` is zero.
`iomaint.c`	`03`	Maint command in NONINT state and not peripheral I/O (PIO) subsystem.
`iomaint.c`	`06`	Maint command in NONINIT state and not `rmv` or `rst`.
`iomaint.c`	`07`	Input/output processor (IOP) driver has req dgn be aborted.
`iomaint.c`	`08`	Maint handler is in wrong state for `iomaint` msg.
`iomaint.c`	`09`	Request for timreq failed for `iomaint` msg.
`iomaint.c`	`0a`	Attach to interrupt failed.
`iomaint.c`	`0b`	Enable interrupts failed.
`iomaint.c`	`0c`	Store data control (SDC) tim req.
`iomaint.c`	`0d`	Not diag controller should not ask for this SDC attach.
`iomaint.c`	`0e`	Attach to interrupt failed.
`iomaint.c`	`0f`	Enable interrupts failed.
`iomaint.c`	`10`	Diagnostic control program (DIAGC) is not diagnosing controller should not ask for attach.
`iomaint.c`	`11`	Detach from interrupts.
`iomaint.c`	`12`	DIAGC not diagnosing controller should not ask for detach.
`iomaint.c`	`13`	Attach to interrupt failed.
`iomaint.c`	`14`	Enable interrupts failed.
`iomaint.c`	`15`	`u_stat` is undefined state.
`iomaint.c`	`16`	`getdmaa` returned an error.
`iomaint.c`	`17`	Received WSETUP0 before DGNDMA.
`iomaint.c`	`18`	Received WSETUP1 before WSETUP0.
`iomaint.c`	`1a`	Failed uniolock.
`iomaint.c`	`1b`	`getdmaa` returned an error.
`iomaint.c`	`1c`	DIAGC has sent a nonsense op code.
`iomaint.c`	`1d`	DIAGC has sent bad data in statword and operword.
`iomaint.c`	`1e`	Unable to push a command into the queue.
`iomaint.c`	`1f`	Error on time request.
`iomaint.c`	`20`	The `getpta()` function returned error.
`iomaint.c`	`21`	The `asndma21()` function returned error.
`iomaint.c`	`22`	The `asndma21()` function returned error.

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iomaint.c	23	The `getpta()` function returned error.
iomaint.c	24	The `sdc32()` function returned error.
iomaint.c	25	The request for timreq failed.
iomaint.c	26	The `cfread()` function returned unsuccessful read.
iomaint.c	27	The `getsucbl()` returned null UCB pointer.
crmvcont.c	30	Conditional remove failed - conference (CONF) denial or equipment configuration data base (ECD) access error.
crmvcont.c	31	Conditional remove failed - CONF denial or ECD access error.
crmvcont.c	32	Conditional remove failed - CONF denial or ECD access error.
crmvcont.c	33	Peripheral controller subdevices (PCSD) conditional remove failed by handler.
crmvcont.c	34	PCSD conditional remove failed - ECD access error.
crmvcont.c	35	Peripheral controller (PC) subsystem conditional remove failed by handler.
crmvcont.c	36	PC conditional remove failed - ECD access error.
crmvcont.c	37	Peripheral interface controller (PIC) conditional remove failed by handler.
outmsg.c	39	No timing available to continue conditional remove.
outmsg.c	40	Conditional remove failed.
outmsg.c	42	Handler failed to restore unit to service.
outmsg.c	44	Restore failed - PC not plugged in slot.
servr1.c	46	An error has occurred - abort restoral.
servr1.c	47	An error has occurred - abort conditional removal.
faultaud.c	48	Remove or restore aborted - causes diagnostic message to fail.
mainthan.c	51	Failed iolock.
mainthan.c	52	Error on asndma1 function.
mainthan.c	53	Handler is not in DMAEXP state.
mainthan.c	54	Error on asndma1 function.
mainthan.c	56	Error on timreq1 function.
mainthan.c	57	`u_stat` is in undefined state.
maintfu.c	70	Byte cnt is not correct.
maintfun.c	72	Abort the diagnostic.
maintfun.c	73	Abort the diagnostic.
updflsh.c	80	Update Flash RAM has been aborted.

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ID . . . . . APP-IOP-APPH
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

ERROR CODES GENERATED BY REMOVE/RESTORE PROCESS

NOTE: The codes are in hexadecimal.

CODE	DESCRIPTION
1	Cannot enable message reception.
2	recvw function error.
3	Cannot open spooler.
4	Cannot open equipment configuration data base (ECD) manager.
5	Cannot get unit control block (UCB).
6	UCB not for requested unit.
7	Cannot get special device file.
8	Cannot open special device file.
9	Invalid command tag from diagnostic monitor program (DIAMON).
0a	Cannot reset reserve bit.
0b	sendw function error.
0c	Cannot set `u_tnum` in UCB.
0d	Request type from DIAMON not manual or auto.
0e	Cannot set `u_manrqst` in UCB.
0f	Cannot release special device file.
10	Abort request via manual input.

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ID . . . . . APP-IOP-APPI
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R2.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

REASONS FOR A REMOVE OR RESTORE REQUEST BEING STOPPED

CODE	DESCRIPTION
1	The diagnostic had failures.
2	The request out of service (ROS) (power control switch) is off normal.
3	Diagnostic request only, not remove or restore.
4	The unit is already active.
5	The unit is already out of service.
6	The unit is off-line (in update or growth mode).
7	The unit is unavailable (forced).
8	The unit is in the INIT state.
9	The unit is in the GROWTH state.
a	Aborted diagnostic, request denied.

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ID . . . . . APP-IOP-APPJ
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

ERROR CODES GENERATED BY IODRV
FOR GROWTH AND DEGROWTH

NOTE: The codes are in hexadecimal notation.

Error Code	Description
1	Cannot get peripheral controller subdevices (PCSD) scratch size for boot time growth.
2	Cannot get PCSD unit control block (UCB) for boot time growth.
3	Cannot get peripheral controller subsystem (PC) scratch size for boot time growth.
4	`downucb()` failed to get PCSDs for boot time growth.
5	Cannot get PC UCB for boot time growth.
6	`downucb()` failed to get PCs for boot time growth.
7	Cannot get PIC UCB for boot time growth.
8	Intelligent serial controller (ISC) failed to allocate memory for boot time growth of peripheral interface controller (PIC).
9	Bad unit level for boot time growth.
a	Cannot restore the PIC during boot time growth.
b	`ioplevl()` failed to get level of unit.
c	Cannot get PC or PCSD UCB for boot time growth.
d	ISC failed to allocate memory for boot time growth of PC or PCSD.
e	Failed to restore a PIC which has no subunits.
f	Cannot initialize PC scratch area during boot time growth.
10	Cannot initialize PCSD scratch area during boot time growth.
11	Cannot link to handler for boot time growth of PC.

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Error Code	Description (continued)
12	Cannot link to handler for boot time growth of PCSD.
20	Bad unit level for dynamic growth.
21	Cannot dynamically grow a unit, controlling unit is unequipped.
22	Cannot get UCB of the controlling unit for dynamic growth.
23	Unit has wrong major state for dynamic growth.
24	Failed to initialize PIC during dynamic growth.
25	Failed to initialize PC during dynamic growth.
26	Failed to link to handler for dynamic growth of a PC.
27	Failed to initialize PCSD during dynamic growth.
28	Failed to link to handler for dynamic growth of a PCSD.
29	Cannot get level of unit for dynamic growth.
2a	Cannot get UCB of unit for dynamic growth.
2b	ISC failed to allocate memory for dynamic growth of a unit.
2c	Cannot get size of unit for dynamic growth.
2d	Bad unit level during dynamic growth completion.
2e	`grow()` encountered bad unit level.
30	ISC failed to deallocate memory for dynamic degrowth of a PIC.
31	ISC failed to deallocate memory for dynamic degrowth of a PC.
32	ISC failed to deallocate memory for dynamic degrowth of a PCSD.
33	Invalid unit level during dynamic degrowth.
34	Cannot dynamically degrow a unit, it has equipped units below it.
35	Unit has wrong major state for dynamic degrowth.
36	Cannot link to handler for PC dynamic degrowth.
37	Cannot link to handler for PCSD dynamic growth.
38	`degrow()` encountered unit level out of range.
39	`degrow()` encountered NULL pointer to IOP data area.
40	`dyngrow()` got bad opcode for growth.
41	`dyngrow()` failed to get UCB of unit.

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ID . . . . . APP-LLA
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

LLA Audit Output Messages

The LLA audit output messages come in three types:

- DIAG - Diagnostic only
- RCVY - Error detection and associated recovery actions
- UNRCVY - Detection of an unrecoverable error

NOTE: A percent character, "%", followed by *x*, *lx*, *d*, and *ld* in an error message means that the appropriate value is substituted into the output message at this point.

lx	long (four byte) hexadecimal number
x	integer hexadecimal number
ld	long (four bytes) decimal number
d	integer decimal number

Error Code	Status	Message	Descriptions
100	RCVY	STRAUD00	incore data base sanity id found to have incorrect value 0x%*lx*
101	RCVY	STRAUD01	offset to sdp SPACE structure being reset from 0x%*lx* to 0x%*x*
102	RCVY	STRAUD02	offset to user data section being reset from 0x%*lx* to 0x%*lx*
103	UNRCVY	STRAUD03	either user rootid in STARTUP(=0x%*lx*) or DMLHEAD(=0x%*lx*) is bad, use browse to patch error
104	RCVY	STRAUD04	startup data base size being reset from 0x%*lx* to 0x%*lx*

Error Code	Status	Message	Descriptions (continued)
105	RCVY	STRAUD05	space maxpage being reset from 0x%*lx* to 0x%*lx*
106	RCVY	STRAUD06	number of SDP space allocation stacks being reset from 0x%*lx* to 0x%*lx*
107	RCVY	STRAUD07	pointer to SDP stacks being reset from 0x%*lx* to 0x%*lx*
108	RCVY	STRAUD08	SDP space pointer to environ being reset from 0x%*lx* to 0x%*lx*
109	RCVY	STRAUD09	ENVIRON manager pointer being reset from 0x%*lx* to 0x%*lx*
110	RCVY	STRAUD10	SDP manager frame pointer being reset from 0x%*lx* to 0x%*lx*
111	RCVY	STRAUD11	SDP manager page id being reset from 0x%*lx* to 0x0
112	RCVY	STRAUD12	SDP manager use count being reset from 0x%*lx* to 0x1
113	RCVY	STRAUD13	SDP manager next index being reset from 0x%*lx* to 0xl
114	RCVY	STRAUD14	SDP manager previous index being reset from 0x%*lx* to 0x1
115	RCVY	STRAUD15	SDP manager page id being reset from 0x%*lx* to IDNULL
116	RCVY	STRAUD16	SDP manager use count being reset from 0x%*lx* to 0x0
117	RCVY	STRAUD17	SDP manager next index being reset from 0x%*lx* to 0x0
118	RCVY	STRAUD18	SDP manager previous index being reset from 0x%*lx* to 0x0
200	DIAG	SDPAUD00	stack entry 0x%*lx* next id found to have incorrect value 0x%*lx*
201	DIAG	SDPAUD01	stack entry 0x%*lx* on %*d* list size %ld out of range
202	RCVY	SDPAUD02	resetting depth of %*d* control stack from %*ld* to %*ld*
203	RCVY	SDPAUD03	resetting next id of %d control stack from 0x%*lx* to 0x%*lx*
204	RCVY	SDPAUD04	stack entry 0x%*lx* next id being reset from 0x%*lx* to 0x%*lx*

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Error Code	Status	Message	Descriptions (continued)
205	RCVY	SDPAUD05	resetting next id of %*d* control stack from 0x%*lx* to 0x%*lx*
206	DIAG	SDPAUD06	four byte stack entry 0x%*1x* top found to have incorrect value 0x%*1x*.
207	RCVY	SDPAUD07	resetting top itemid of 4 byte stack from 0x%1x to 0x%1x.
208	RCVY	SDPAUD08	resetting depth of 4 byte stack from %*ld*
209	RCVY	SDPAUD09	resetting top of 4 byte stack from 0x%1x to 0x%1x
210	RCVY	SDPAUD10	4 byte stack entry 0x%1x next id being reset from 0x%1x to 0x%1x
300	UNRCVY	DMLAUD00	unable to load DMLHEAD structure with SDP
301	RCVY	DMLAUD01	DML sanity id at itemid = 0 was found to have incorrect value 0x%*lx*
302	RCVY	DMLAUD02	DML page size found to have incorrect value %*d*, should be %*d*
303	RCVY	DMLAUD03	number of rids in ridblk per page found to have incorrect value %d, should be %*d*
304	DIAG	DMLAUD04	start of set header list found to have incorrect value 0x%*lx*
305	DIAG	DMLAUD05	set start points to bad set header at 0x%*lx*
306	DIAG	DMLAUD06	end of set header list found to have incorrect value 0x%*lx*
307	DIAG	DMLAUD07	set end points to bad set header at 0x%*lx*
3.0	RCVY	DMLAUD08	set start itemid being reset to 0x%*lx* from 0x%*lx*
309	RCVY	DMLAUD09	set end itemid being reset to 0x%*lx* from 0x%*lx*
310	DIAG	DMLAUD10	start of rid block list found to have incorrect value 0x%*lx*
311	DIAG	DMLAUD11	rid block start points to bad rid block header at 0x%*lx*
312	DIAG	DMLAUD12	end of rid block list found to have incorrect value 0x%*lx*

Error Code	Status	Message	Descriptions (continued)
313	DIAG	DMLAUD13	rid block end points to bad rid block at 0x%*lx*
314	RCVY	DMLAUD14	rid block start itemid being reset to 0x%*lx* from 0x%*lx*
315	RCVY	DMLAUD15	rid block end itemid being reset to 0x%*lx* from 0x%*lx*
316	RCVY	DMLAUD16	SPACE page size found to have incorrect value %*d*, should be %*d*
400	RCVY	SETAUD00	set header sanity id at 0x%*lx* found to have incorrect value 0x%*lx*
401	RCVY	SETAUD01	previous link field in set header at 0x%*lx* being reset from 0x%*lx* to 0x%*lx*
402	RCVY	SETAUD02	next link field in set header at 0x%*lx* being reset from 0x%*lx* to 0x%*lx*
500	RCVY	RBLAUD00	rid block sanity id at 0x%*lx* found to have incorrect value 0x%*lx*
501	RCVY	RBLAUD01	previous link field in rid block at 0x%*lx* being reset from 0x%*lx* to 0x%*lx*
502	RCVY	RBLAUD02	next link field in rid block at 0x%*lx* being reset from 0x%*lx* to 0x%*lx*
600	RCVY	BCKAUD00	record sanity id at 0x%*lx* found to have incorrect value 0x%*lx*
601	RCVY	BCKAUD01	record at 0x%*lx* back link being reset from 0x%*lx* to 0x%*lx*
602	RCVY	BCKAUD02	rid block slot at 0x%*lx* being reset from 0x%*lx* to 0x%*lx*
603	RCVY	BCKAUD03	rid block slot 0x%*lx* bad, being reset from 0x%*lx* to 0x%*lx*
700	RCVY	ORPAUD00	resetting ridblk slot at 0x%*lx* to 0x%*lx* from 0x%*lx*
800	RCVY	FREAUD00	rid block 0x%*lx* being put on free rid block list at head

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Error Code	Status	Message	Descriptions (continued)
801	RCVY	FREAUD01	rid block 0x%*lx* on free list has no free slots
900	DIAG	FRLAUD00	rid block 0x%*lx* next free link found to have incorrect value 0x%*lx*
901	DIAG	FRLAUD01	dmlhead link to start of rid block free list found to have incorrect value 0x%*lx*
1000	RCVY	FRLAUDR00	rid block 0x%*lx* next free link being reset from 0x%*lx* to 0x%*lx*
1001	RCVY	FRLAUDR01	resetting free rid block id in dmlhead from 0x%*lx* to 0x%*lx*
1200	UNRCVY	SHDAUD00	set 0x%*lx* ordinal in both header and accessid bad
1201	RCVY	SHDAUD01	set 0x%*lx* ordinal being reset from 0x%*x* to 0x%*x*
1202	RCVY	SHDAUD02	set 0x%*lx* number of access methods being reset from %*d* to %*d*
1203	RCVY	SHDAUD03	set 0x%*lx* cluster flag being reset from 0x%*x* to 0x%*x*
1204	RCVY	SHDAUD04	set 0x%*lx*, access method %*d*, accessid being reset from 0x%*lx* to 0x%*lx*
1205	RCVY	SHDAUD05	set 0x%*lx*, access method %*d*, pagesize being reset from 0x%*x* to 0x%*x*
1206	RCVY	SHDAUD06	set 0x%*lx*, access method %*d*, keylength being reset from %*d* to %*ld*
1300	RCVY	DMLAUDR0	start and end rid block links being reset from 0x%*lx*, 0x%*lx* to 0x%*lx*, 0x%*lx*
1301	RCVY	DMLAUDR1	start and end set header links being reset from 0x%*lx*, 0x%*lx* to 0x%*lx*, 0x%*lx*
1400	RCVY	DSTRAUD1400	offset to DML structure being reset from 0x%*1x* to 0x%*1x*
1401	UNRCVY	DSTRAUD1401	offset to DML structure found to be 0x%1x but should be 0x%1x

Error Code	Status	Message	Descriptions (continued)
1402	RCVY	DSTRAUD1402	disk database sanity id being reset from 0x%1x to 0x%1x
1403	UNRCVY	DSTRAUD1403	disk database sanity id found to be 0x%1x but should be 0x%1x
1404	RCVY	DSTRAUD1404	offset to sdp SPACE structure being reset from 0x%1x to 0x%1x
1405	UNRCVY	DSTRAUD1405	offset to sdp SPACE structure found to be 0x%1x but should be 0x%1x
1406	UNRCVY	DSTRAUD1406	sanity id for DML structure found to be 0x%1x but should be 0x%1x
1407	UNRCVY	DSTRAUD1407	either user rootid in STARTUP(=0x%1x) or DMLHEAD(=0x%1x) is bad, use fsdb to patch
1408	RCVY	DSTRAUD1408	dsik database size in STARTUP being reset from 0x%1x to 0x%1x
1409	UNRCVY	DSTRAUD1409	dsik database size in STARTUP found to be 0x%1x but should be 0x%1x
1410	RCVY	DSTRAUD1410	disk database size in sdp SPACE structure being reset from 0x%1x to 0x%1x
1411	UNRCVY	DSTRAUD1411	disk database size in sdp SPACE structure found to be 0x%1x but should be 0x%1x
1412	RCVY	DSTRAUD1412	number of sdp stax being reset from 0x%1x to 0x%1x
1413	UNRCVY	DSTRAUD1413	number of sdp stax found to be 0x%1x but should be 0x%1x
1414	RCVY	DSTRAUD1414	sdp SPACE page size reset from 0x%1x to 0x%1x
1415	UNRCVY	DSTRAUD1415	sdp SPACE structure found to have page size 0x%1x but should be 0x%1x
1416	RCVY	DSTRAUD1416	address of file information structure being reset from 0x%1x to 0x%1x
1417	UNRCVY	DSTRAUD1417	address of file information structure found to be 0x%1x but should be 0x%1x

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Error Code	Status	Message	Descriptions (continued)
1418	RCVY	DSTRAUD1418	address of stax information structure being reset from 0x%1x to 0x%1x
1419	UNRCVY	DSTRAUD1419	address of stax information structure found to be 0x%1x but should be 0x%1x
1420	RCVY	DSTRAUD1420	address of environment structure reset from 0x%1x to 0x%1x
1421	UNRCVY	DSTRAUD1421	address of environment structure found to be 0x%1x but should be 0x%1x
1422	RCVY	DSTRAUD1422	address of head name reset from 0x%1x to 0x%1x
1423	UNRCVY	DSTRAUD1423	address of head name found to be 0x%1x but should be 0x%1x
1424	RCVY	DSTRAUD1424	address of manager structure reset from 0x%1x to 0x%1x
1425	UNRCVY	DSTRAUD1425	address of manager structure found to be 0x%1x but should be 0x%1x
1426	RCVY	DSTRAUD1426	number of frames in environment structure reset from 0x%1x to 0x%1x
1427	UNRCVY	DSTRAUD1427	number of frames in environment structure found to be 0x%1x but should be 0x%1x
1428	RCVY	DSTRAUD1428	frame pointer address reset from 0x%1x to 0x%1x
1429	UNRCVY	DSTRAUD1429	frame pointer address found to be 0x%1x but should be 0x%1x
1430	RCVY	DSTRAUD1430	manager[0] space pointer reset from 0x%1x to 0x%1x
1431	UNRCVY	DSTRAUD1431	manager[0] space pointer found to be 0x%1x but should be 0x%1x
1432	RCVY	DSTRAUD1432	manager[0] page id reset from 0x%1x to 0x%1x
1433	UNRCVY	DSTRAUD1433	manager[0] page id found to be 0x%1x but should be 0x%1x
1434	RCVY	DSTRAUD1434	manager[0] use count reset from 0x%1x to 0x%1x

Error Code	Status	Message	Descriptions (continued)
1435	UNRCVY	DSTRAUD1435	manager[0] use count found to be 0x%1x but should be 0x%1x
1436	RCVY	DSTRAUD1436	manager[0] forward pointer reset from 0x%1x to 0x%1x
1437	UNRCVY	DSTRAUD1437	manager[0] forward pointer found to be 0x%1x but should be 0x%1x
1438	RCVY	DSTRAUD1438	manager[0] backward pointer reset from 0x%1x to 0x%1x
1439	UNRCVY	DSTRAUD1439	manager[0] backward pointer found to be 0x%1x but should be 0x%1x
1440	RCVY	DSTRAUD1440	manager[1] page id reset from 0x%1x to 0x%1x
1441	UNRCVY	DSTRAUD1441	manager[1] page id found to be 0x%1x but should be 0x%1x
1442	RCVY	DSTRAUD1442	manager[1] use count reset from 0x%1x to 0x%1x
1443	UNRCVY	DSTRAUD1443	manager[1] use count found to be 0x%1x but should be 0x%1x
1444	RCVY	DSTRAUD1444	manager[1] forward pointer reset from 0x%1x to 0x%1x
1445	UNRCVY	DSTRAUD1445	manager[1] forward pointer found to be 0x%1x but should be 0x%1x
1446	RCVY	DSTRAUD1446	manager[1] backward pointer reset from 0x%1x to 0x%1x
1447	UNRCVY	DSTRAUD1447	manager[1] backward pointer found to be 0x%1x but should be 0x%1x
1448	RCVY	DSTRAUD1448	cannot open %s for writing - no corrections made
1449	UNRCVY	DSTRAUD1449	cannot rewrite lla control structures for %s - no corrections made

ID . . . . . APP-MEM-NUM-APPB
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . None

Table B Audit Names and Member Numbers

Audit Name	Member Number	Audit Description
CUMEM	1	Control unit memory comparison
CUSTAT	1	Control unit hardware status
ECD	1	Incore equipment configuration data base (ECD) structure
	2	Disk ECD structure
	3	Incore ECD raw data
ECDOWN	1	ECD record ownership
FMGR	1	File manager task queue
	2	File manager incore inode table
	3	File manager hash table & inode pointer
	4	File manager file table
	5	File manager capability table
	6	File manager buffers
	7	File manager mount table
	8	File manager delayed queue
	9	File manager message queue
FSBLK	1	File system block (all file systems)
FSCMPT	1	File system compaction (all file systems)
FSLINK	1	File system link (all file systems)

Table B Audit Names and Member Numbers *(continued)*

Audit Name	Member Number	Audit Description
MMGR	1	Memory manager segment descriptor table
	2	Memory manager page tables
	3	Memory manager page descriptor table
	4	Memory manager segment release
	5	Memory manager segment unlock
	9	Memory manager swap space compaction
MSGBUF	1	Message buffer queues
	2	Message buffer extenders
PMS	1	Plant measurements data base integrity
	2	Plant measurements data base recovery
PROAD	1	Process administration

ID . . . . . APP-MEM-NUM-APPC
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . None

Table C Hardware Unit Names and Member Numbers

Unit Name	Meaning	*Allowed Member Numbers
CU	Control unit	0 or 1
DFC	Disk file controller	0 - 7
DUI	Direct user interface	0 - 255
DUIC	DUI controller	0 - 255
EAI	Emergency action interface (G2 only)	0 - 255
HSD	High-speed synchronous data link	0 - 255
HSDC	HSD controller	0 - 255
IOP	Input/output processor	0 - 15
MHD	Moving head disk	0 - 255
MT	Magnetic tape drive	0 - 255
MTC	Magnetic tape controller	0 - 255
MTTY	Maintenance terminal	0 - 255
MTTYC	MTTY controller	0 - 255
ROP	Receive only printer	0 - 255
SBUS	SCSI Bus	0 - 255
SCC	Switching Control Center data link	0 - 255
SCSDC	Scanner & signal distributor controller	0 - 255
SDL	Synchronous data link	0 - 255
SDLC	Synchronous data link controller	0 - 255
TTY	Terminal (other than MTTY)	0 - 255
TTYC	TTY controller (other than MTTYC)	0 - 255

* These represent the limits imposed by input messages. The actual member numbers of units in a administrative module (AM) computer system are defined in the equipment configuration data base for that system.

ID . . . . . APP-MEM-NUM-APPD
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . None

Table D Control Unit (CU) Subunit Names and Member Numbers

Subunit Name	Meaning	Allowed Member Numbers
CC	Central Control unit	0
CH	Channel	0 - 19
CSU	Cache Store Unit	0
DMA	Direct Memory Access unit	0 or 1
MASC	Main Store Controller	0 or 1
SAT	Store Address Controller	0
UC	Utility Circuit	0

ID . . . . . APP-MSGCLASS
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

MESSAGE CLASS NUMBER/REPORT DESTINATION NAME RELATIONSHIP

This appendix shows the relationship between the message class number (as used to access the ECD Classdef records, and as it appears in the OMDB Cross Reference Appendix), and the report destination name as it appears in output message headers.

The first table gives the translation from class number to report destination name, together with a short textual description of the message class. The second table provides the reverse translation.

Table 1 - Message Class to Report Destination Translation

MGS CLASS	REPORT DEST	DESCRIPTION
0	SPERR	Spooler Error reports
1	MAINT	General Maintenance reports
2	MAIPR	Low Priority Maintenance reports
3	DEBUG	Debugging reports
4	TIME	Data and Time reports
5	PMORT	Post-Mortem reports
6	EIH	Processor Error Interrupt reports
7	MEMF	Memory Fault reports
8	CONF	Configuration Management reports
9	DGN	Diagnostic reports
10	TLP	Trouble Locating Procedure reports
11	AUDT	Audit reports (printed)
12	AUDL	Audit reports (logged)
13	RC	Recent Change reports
14	UTIL	Field Utility reports
15	SIM	System Integrity reports
16	XUNIT	Unit Abnormal Condition reports
17	REX	Routine Exercise reports
18	GSPM	Generic Utility reports (printed)
19	GSPL	Generic Utility reports (logged)
20	LGTRM	Log File Output reports
21	PMCR	Plant Measurement Common reports

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Table 1 - Message Class to Report Destination Translation (continued)

MGS CLASS	REPORT DEST	DESCRIPTION
22	ULARP	Unix Level Automatic Restart Process reports
23		
24	DSKUTL	Disk Utility reports
25	DSKSYS	Disk Subsystem reports
26	PSSWD	Password Break Attempt reports
27	AUTH	Authority Administration reports

Table 2 - Report Destination to Message Class Translation

MSG CLASS	REPORT DEST	DESCRIPTION
12	AUDL	Audit reports (logged)
11	AUDT	Audit reports (printed)
27	AUTH	Authority Administration reports
8	CONF	Configuration Management reports
3	DEBUG	Debugging reports
9	DGN	Diagnostic reports
25	DSKSYS	Disk Subsystem reports
24	DSKUTL	Disk Utility reports
6	EIH	Processor Error Interrupt reports
19	GSPL	Generic Utility reports (logged)
18	GSPM	Generic Utility reports (printed)
20	LGTRM	Log File Output reports
1	MAINT	General Maintenance reports
2	MAIPR	Low Priority Maintenance reports
7	MEMF	Memory Fault reports
21	PMCR	Plant Measurement Common reports
5	PMORT	Post-Mortem reports
26	PSSWD	Password Break Attempt reports
13	RC	Recent Change reports
17	REX	Routine Exercise reports
15	SIM	System Integrity reports
0	SPERR	Spooler Error reports
4	TIME	Data and Time reports
10	TLP	Trouble Locating Procedure reports
22	ULARP	Unix Level Automatic Restart Process reports
14	UTIL	Field Utility reports
16	XUNIT	Unit Abnormal Condition reports

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ID . . . . . APP-OMDB-REF
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

OMDB CROSS REFERENCE APPENDIX

The Output Message Database (OMDB) cross reference gives information about every message contained in the OMDB. The information includes its key, message class, alarm level, message text, variable offsets, sizes and translation types.

The following is an example of a cross reference entry and an explanation of the fields.

KEY = 5 MSGCLS = 1 ALARM = MAN *%1* OMDB COMPLETED

Figure 1

Field Name	Description
KEY	The key (index) into the OMDB. The key(s) for each message in the database can be found on the Output Message manual pages.
MSGCLS	The numeric message class for this message (0-255). For a complete list of message classes, refer to the MSGCLASS Appendix, MSGCLASS-APP.
ALARM	The alarm level defined for this message. It will be one of the following: CRIT, MAJ, MIN, MAN, ACT, INFO, VAR.
MESSAGE	Reason the OMDB was output. The percent sign (%) in this field indicates variable information. Please contact Lucent Technologies Customer Technical Support for assistance.

Figure 1 shows a database entry for key number 5, which has a message class of 1 (MAINT) and an alarm level of MAN (manual). The message has a variable field indicated by the %. In this particular case the variable field shows which enum the OMDB completed.

The following is a listing of the possible DMERT/UNIX® RTR OMDB keys.

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KEY	MSGCLS	ALARM	MESSAGE
0	1	INFO	REPT CSOP IN SERVICE
1	1	MAN	ACTV OMDB COMPLETED
2	1	MAN	APPLY OMDB COMPLETED
3	1	MAN	%1 OMDB NO DATABASE ENTRY FOUND FOR THE FOLLOWING KEYS:
4	1	MAN	UPD OMDB COMPLETED FOR THE FOLLOWING KEYS:
5	1	MAN	%1 OMDB COMPLETED
6	1	MAN	OP OMDB %1
7	1	MAN	OP OMDB %1 NO DATABASE ENTRY FOUND FOR THE FOLLOWING KEYS:
8	1	MAN	APPLY OMDB LOGFILE ERROR
9	1	MAN	%1 OMDB CANNOT OPEN OR CREATE LOGFILE
10	1	MAN	%1 OMDB ABORTED
11	1	INFO	REPT CSOP FORMATTING
12	28	INFO	REPT SOP DELETING OLDER HALF OF %1
13	2	INFO	DEL LOG CANNOT OPEN WORKFILE
14	2	INFO	DEL LOG FILE %1 DELETION COMPLETE %2 DELETED
15	14	INFO	DEL LOG CORRUPT LOGFILE %1%2 AT %3
16	1	ACT	ANALY TLPFILE %1 SUMMARY DATA MSG STARTED
17	1	ACT	ANALY TLPFILE %1 TLPSRCH MSG IP
18	1	ACT	ANALY TLPFILE %1 SUSPECTED FAULTY EQUIPMENT MSG COMPL
19	1	ACT	REPT TLP ERROR %1 %2 %3 %4 %5
20	1	ACT	REPT ANALY TLP %1 %2
21	1	ACT	REPT ANALY TLP %1
22	1	ACT	REPT ANALY TLP %1 %2
23	1	ACT	DGN %1 %2 - FLASH MEMORY UPDATE PROCESS IN PROGRESS
24	16	MAN	OP REXINH %1
25	1	INFO	OP REXINH CANNOT OPEN %1
26	17	INFO	REPT REX SUMMARY %1
27	1	INFO	REPT REX TERMINATED - INTERNAL REQUEST
28	1	INFO	REPT REX UNABLE TO SEND MESSAGE TO APPLICATION REX PORT
29	1	INFO	REPT REX UNABLE TO REQUEST PORTSWITCH FOR IOP DIAGNOSIS
30	1	INFO	REPT REX ROP PORTSWITCH REQUEST DENIED
31	1	INFO	REPT REX MTTY PORTSWITCH REQUEST DENIED
32	1	MAJ	REPT REX MAJOR ALARM %1
33	1	INFO	REPT REX CANNOT OPEN %1
34	1	ACT	REPT DGN CU ERROR %1
35	1	MAN	EX STEP SCRATCH WORD VALUE IS %1
36	1	ACT	REPT DGN CU ERROR %1
37	1	MAN	EX STEP BYTE SENT %1
38	1	MAN	EX STEP BYTE RECEIVED %1

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KEY	MSGCLS	ALARM	MESSAGE
39	1	MAN	EX LDPARM MASC %1 TEST INPUT VALUES
40	1	MAN	EX LDPARM MASC %1 TEST INPUT VALUES
41	1	MAN	EX LDPARM MASC %1 TEST INPUT VALUES
42	1	MAN	EX LDPARM MASC MEM TEST INPUT VALUES
43	1	MAN	EX LDPARM MASC UPD TEST INPUT VALUES
44	1	MAN	EX LDPARM MASC UPD TEST INPUT VALUES
45	1	ACT	REPT DGN CU %1
46	1	MAN	EX %1 %2 %3 %4 %5 %6 %7 %8
47	1	MAN	EX STEP MESSAGE SENT
48	1	MAN	EX STEP MESSAGE RECEIVED
49	16	MAN	OP %1 MESSAGE STARTED
50	16	MAN	OP %1 COMPLETED
51	1	MAN	OP %1 INTERFACE ERROR, ERRNO = %2
52	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
53	1	ACT	%1 CU %2 MASC %3 PH %4 MEMORY FAILURE RESULTS
54	1	ACT	REPT DGN %1 NO DIAMON
55	1	ACT	REPT DGN ERROR TEST NUMBER %1
56	1	ACT	REPT DGN AUDIT %1
57	1	ACT	DGN %1 %2 PH %3 DISK READ/WRITE FAILURES
58	1	ACT	REPT %1 ERROR 3 %2
59	1	ACT	REPT MIRA %1
60	1	ACT	REPT MIRA CANNOT RESERVE UNITS FOR %1 %2 %3 %4 %5
61	1	ACT	DGN %1 %2 - FLASH MEMORY UPDATE PROCESS COMPLETE
62	1	MAN	INH DMQ CANNOT INHIBIT A MANUAL SOURCE %1
63	1	MAN	INH DMQ %1
64	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
65	1	MAN	INH DMQ CANNOT LCALL INHTIMER PROCESS %1 FOR INHIBIT ERRNO = %2
66	1	MAN	ALW DMQ ENABLED %1%2
67	1	MAN	ALW DMQ SOURCE %1 %2
68	1	ACT	REPT MIRA CANNOT LCALL %1
69	1	MAN	REPT MIRA CANNOT SEND MESSAGE TO %1 ERRNO = %2
70	1	ACT	%1 %2 %3 %4 %5 TASK %6 %7
71	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
72	1	ACT	REPT MIRA %1 ERRNO = %2
73	1	ACT	REPT MIRA %1 %2 %3 %4 %5
74	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
75	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
76	12	VAR	AUD ENV=RTR %1 %2 %3 %4 %5
77	1	MAN	EX %1 %2 NO ACTION TAKEN
78	12	VAR	AUD ENV=RTR %1 %2 %3 COMPLETED
79	12	VAR	REPT SIOF ERROR - TOO MANY BLOCKS (%1) RETURNED BY SIM
80	12	VAR	REPT SIOF ERROR - INVALID OUTPUT FORMAT TYPE %1

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KEY	MSGCLS	ALARM	MESSAGE
81	12	VAR	REPT SIOF ERROR - INVALID ALARM LEVEL %1 SUBSTITUTING ' '
82	12	VAR	REPT SIOF ERROR - INVALID SUPPLEMENTARY DATA TYPE %1
83	12	VAR	REPT SIOF ERROR - UNABLE TO FIND AVAILABLE SEGMENT INDEX
84	12	VAR	REPT SIOF ERROR - INVALID SEGMENT ID %1 CODE %2
85	12	VAR	REPT SIOF ERROR - UNABLE TO ADD SEGMENT ID %1 CODE %2
86	1	ACT	REPT MIRA %1 %2 %3 %4 %5 ABORT REQUESTED REASON %6
87	12	VAR	REPT SIOF ERROR - CANNOT SET VIRTUAL ADDRESS SEGNUM %1 CODE %2
88	12	VAR	REPT SIOF ERROR - CANNOT ADD SEGNUM %1 CODE %2
89	12	VAR	REPT SIOF ERROR - INVALID SUPPLEMENTARY DATA
90	1	ACT	REPT MIRA CONC=%1 %2
91	1	ACT	OP DMQ
92	1	ACT	REPT DMQ %1 %2%3 %4
93	1	ACT	REPT DMQ INHIBIT %1%2 ACTIVE, REMAINING TIME %3 MINUTES
94	12	VAR	REPT SIOF ERROR - UNABLE TO FREE SEGMENT %1
95	1	ACT	REPT DIAMON ERROR = %1 ERRNO = %2
96	1	ACT	%1 %2 %3 %4 %5 %6
97	12	VAR	REPT SIOF ERROR - INVALID SEG ID STAMP %1
98	12	VAR	REPT SIOF ERROR - INVALID SUPPLEMENTARY DATA FORMAT %1
99	1	ACT	%1 %2 %3 %4 %5 %6 %7 %8
100	12	VAR	REPT SIOF ERROR - SIZEOF(%1) NOT FACTOR OF PASSED SIZE
101	12	VAR	REPT SIOF ERROR - CANNOT %1 FILE %2
102	12	VAR	REPT SIOF ERROR - CANNOT OPEN %1 FILE %2
103	1	ACT	%1 %2 %3 %4 %5 %6 (%7 %8 %9) %10
104	6	INFO	REPT ERSLOT
105	7	INFO	REPT ERSLOT
106	1	ACT	%1 %2 %3 %4 %5 ABORTED AT PH %6 STMNT %7 ATP MSG IP
107	6	INFO	REPT ERSLOT
108	7	INFO	REPT ERSLOT
109	1	ACT	%1 %2 %3 %4 %5 %6 %7 %8 %9 STF (%10 %11 %12) MSG IP
110	1	ACT	%1 %2 %3 %4 %5 %6 %7 %8 %9 STF (%10 %11 %12) MSG IP
111	1	ACT	%1 %2 %3 %4 %5 %6 %7 %8 %9 %10 (%11 %12) MSG IP
112	7	INFO	REPT ERSLOT
113	7	INFO	REPT ERSLOT

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KEY	MSGCLS	ALARM	MESSAGE
114	6	INFO	REPT ERSLOT
115	6	INFO	REPT ERSLOT
116	6	INFO	REPT ERSLOT
117	1	ACT	REPT ERRPORT %1 %2 %3
118	1	MAN	%1 OMDB ABORTED
119	24	INFO	%1 %2 %3 %4 %5
120	24	MAN	%1 %2 %3 %4 %5
121	24	MAJ	%1 %2 %3 %4 %5
122	24	MAN	%1 MHD %2 %3 IN PROGRESS
123	24	MAN	LOAD MHD %1 DEFECT TABLE %2 %3 %4
124	24	MAN	%1 %2 %3 PARTITION MISMATCH
125	24	INFO	%1 %2 %3 PARTITION MISMATCH
126	24	MAN	%1 %2 %3 PARTITION %4
127	24	INFO	%1 %2 %3 PARTITION %4
128	24	MAN	%1 %2 %3 PARTITION BYPASSED
129	24	INFO	%1 %2 %3 PARTITION BYPASSED
130	24	MAN	%1 %2 %3 FINAL SUMMARY
131	24	INFO	%1 %2 %3 FINAL SUMMARY
132	24	MAN	%1 %2 %3 PARTITION ACCESS FAILURE
133	24	INFO	%1 %2 %3 PARTITION ACCESS FAILURE
134	1	MAN	REPT FAN %1 %2 %3
135	1	MAJ	REPT FAN %1 %2 %3
136	1	MIN	REPT FAN %1 %2 %3
137	1	INFO	REPT FAN %1 %2 %3
138	1	INFO	REPT PSM ERROR %1 %2 %3 %4 %5 %6 %7
139	1	MAN	REPT POWER %1 %2 %3 %4 %5
140	1	INFO	REPT POWER FAULT CLEARED %1 %2 %3 %4
141	1	MIN	REPT POWER %1 %2 %3 %4 %5 %6
142	1	MAJ	REPT POWER %1 %2 %3 %4 %5 %6
143	0	INFO	REPT %1 %2 %3
145	24	MAN	DUMP MHD %1 DEFECT TABLE %2
146	24	MAJ	%1 MHD %2 EARLY TERM VFY FAILED %3
147	24	MAN	%1 MHD %2 %3 %4 %5
148	24	INFO	%1 MHD %2 %3 %4 %5
149	24	MAJ	%1 MHD %2 %3 %4 %5
150	24	MAN	OP DFC %1 INFO
151	24	MAN	OP MHD %1 INFO
152	24	MAN	OP DFC %1 INFO
153	24	MAN	OP %1 %2 INFO %3 %4 %5
154	24	MAN	REPT DKDIP MESSAGE
155	254	INFO	REPT IODRV %1 %2 %3 %4 %5 %6 %7
156	254	INFO	REPT IODRV %1 %2 %3 %4 %5 %6 %7
157	1	MAN	OP SCSD GRPN %1
158	1	MAN	OP SCSD UNIT %1
159	1	MAN	%1 %2
160	1	INFO	OP IODRV COMPLETED

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KEY	MSGCLS	ALARM	MESSAGE
161	1	INFO	OP IODRV %1
162	1	INFO	LVL
163	1	INFO	OP IODRV MSG STARTED
164	1	MAN	SW PORTSW %1 %2 %3
165	1	INFO	REPT SCSDA %1 %2 %3 %4 %5 %6 %7 %8
166	1	MAJ	REPT PHASE %1 IN PROGRESS
167	1	CRIT	REPT PHASE %1 IN PROGRESS
168	1	MIN	REPT INHIBIT SCAN POINT %1 ON SCSD %2
169	13	MAN	RCV MENU %1 %2 %3 %4 %5 %6
170	11	INFO	REPT ECDMAN %1
171	1	ACT	OP DMQ
172	1	ACT	OP DMQ
173	1	ACT	OP DMQ
174	6	INFO	REPT ERSLOT
175	1	INFO	REPT C/D ERROR %1 %2 %3 %4 %5 %6 %7
176	254	INFO	REPT CSOP %1
177	1	INFO	%1
178	1	INFO	%1 %2
179	1	INFO	%1
180	1	INFO	REPT RTS GETDBSEG FAILED ERRNO %1
181	1	MAN	VFY TAPE %1
182	1	MAN	VFY TAPE %1 %2
183	1	MAN	VFY TAPE STOPPED %1 HEADER %2 RECORD %3
184	1	MAN	VFY TAPE COMPLETED RETRIES %1 HEADER MISMATCHES %2 DATA MISMATCHES %3
185	1	MAN	%1 %2 %3
186	1	MAN	COPY ACTDISK STOPPED WITH ERROR CODE %1 ERRNO %2 %3
187	1	MAN	COPY ACTDISK ON MHD %1 COMPLETED
188	1	MAN	COPY %1 %2 %3 %4
189	1	MAN	CLR PTN STOPPED WITH ERROR CODE %1 ERRNO %2 %3
190	1	MAN	CLR PTN ON MHD %1 COMPLETED
191	1	MAN	CLR PTN CLEARING %1 ON MHD %2
192	25	INFO	REPT DKDRV ERROR DATA %1
193	254	INFO	REPT IODRV RECEIVED UNIDENTIFIED RCV MESSAGE
194	254	INFO	REPT IODRV RECEIVED UNIDENTIFIED RCV MESSAGE
195	254	INFO	%1 %2 %3 %4
196	254	INFO	%1 %2 %3 %4
197	254	INFO	REPT %1 %2 %3 %4 %5
198	254	INFO	REPT %1 %2 %3 %4 %5
199	25	INFO	REPT %1 %2 INFO CODE %3
200	25	INFO	REPT %1 %2 INFO HA SHADOW REGISTER STATUS %3
201	254	INFO	REPT CSOP %1 %2%3
202	254	INFO	REPT CSOP %1 %2%3 %4 %5%6
203	254	INFO	REPT CSOP CANNOT SEND MSG TO %1 %2 ERRNO %3
204	254	INFO	REPT CSOP NO QUEUE ENTRY OUTPUT ERROR %1 %2 %3

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KEY	MSGCLS	ALARM	MESSAGE
			%4
205	254	INFO	REPT CSOP SOF INIT %1 %2 %3 %4
206	254	INFO	REPT CSOP SOP OUTPUT ERROR
207	254	INFO	REPT %1 %2 %3 %4 %5 %6 %7 %8 %9
208	254	INFO	REPT %1 %2 %3 %4 %5 %6 %7 %8 %9
209	11	ACT	REPT PMSAUD %1
210	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
211	1	ACT	REPT PMDBCOPY %1 %2 %3 %4
212	1	ACT	REPT PLDMON ERROR %1 %2 %3 %4
213	1	ACT	OP PMCR ERROR %1 %2 %3 %4
214	1	MAN	OP PMCR WILL %1 OUTPUT %2 REPORTS %3 %4
215	6	INFO	REPT ERSLOT
216	7	INFO	REPT ERSLOT
217	1	ACT	%1 %2 %3 %4 %5 TERMINATED AT PH %6 STMNT %7 AFTER TEST %8
218	1	INFO	ID
219	1	INFO	CLASS
220	1	INFO	MSGSAVE
221	1	INFO	OP IODRV MSG STARTED
223	254	INFO	REPT %1 %2 %3 %4 %5 %6
224	254	INFO	REPT %1 %2 %3 %4 %5 %6
225	254	INFO	REPT %1 %2 %3 %4
226	254	INFO	REPT %1 %2 %3 %4
227	254	INFO	REPT %1 %2 %3 %4 %5 %6
228	254	INFO	REPT %1 %2 %3 %4 %5 %6
229	1	MAN	%1 %2 %3 %4 %5 %6 %7 %8 %9 %10 %11 %12 %13 %14 %15 %16 %17
230	25	INFO	REPT DKDRV INFO CODE %1
231	25	INFO	REPT %1 %2 ERROR DATA %3
232	25	MIN	REPT %1 %2 ERROR COMPLETION CODE %3 DEVICE STATUS %4
233	25	INFO	REPT %1 %2 ERROR %3 STATUS %4
234	25	INFO	REPT %1 %2 FAULT CODE %3
235	25	INFO	REPT %1 %2 UNIDENTIFIED RESPONSE WD1=%3 WD2=%4
236	25	INFO	REPT %1 %2 ERROR STATUS %3 MASK %4 EXP %5
237	25	MAJ	REPT %1 %2 AUTONOMOUS RESPONSE %3
238	25	MIN	REPT %1 %2 AUTONOMOUS RESPONSE %3
239	25	INFO	REPT %1 %2 AUTONOMOUS RESPONSE %3
240	25	INFO	REPT DKDRV RECEIVED UNKNOWN RCV MESSAGE %1 %2 %3
241	25	INFO	REPT %1 %2 %3 %4
242	1	INFO	REPT DISK INDEPENDENT OPERATION MODE IN EFFECT
243	25	INFO	REPT DISK INDEPENDENT OPERATION MODE STATUS %1 %2 %3 %4
244	25	INFO	REPT %1 %2 ERROR COMPLETION CODE %3 DEVICE

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KEY	MSGCLS	ALARM	MESSAGE
			STATUS %4
245	1	INFO	REPT UNIX INIT ERROR %1 CHANID %2 %3
246	24	MAN	DUMP MHD %1 BLOCK %2 %3 %4
247	24	MAN	DUMP MHD %1 BLOCK %2
248	24	MAN	DUMP MHD %1 VTOC %2 %3 %4
249	24	MAN	DUMP MHD %1 VTOC SEGMENT %2 of %3
250	24	MAN	DUMP MHD %1 DEFECT TABLE %2 %3 %4
251	24	MAN	DUMP MHD %1 DEFECT TABLE %2
252	24	MAN	DUMP MHD %1 DEFECT TABLE %2
253	24	MAN	REPT DKDIP MESSAGE
254	24	MAN	REPT DKDIP MESSAGE
256	24	MAN	REPT DKDIP MESSAGE
257	24	MAN	REPT DKDIP MESSAGE
259	1	INFO	REPT DKDIP MESSAGE
260	1	INFO	RST MHD %1 IN PROGRESS
261	1	INFO	RST MHD %1 IN PROGRESS
262	1	MAN	RST MHD %1 IN PROGRESS
263	1	INFO	RST MHD %1 IN PROGRESS
264	1	MAN	RST MHD %1 IN PROGRESS %2
265	1	INFO	RST MHD %1 IN PROGRESS %2
266	24	MAJ	REPT DKDIP MESSAGE
267	24	MAN	REPT DKDIP MESSAGE
270	1	MAN	REPT DKDIP MESSAGE
272	1	INFO	REPT AUDIT IMCATALOG %1
273	1	INFO	REPT C/D %1 %2 %3 %4 %5 %6 %7 %8
275	1	INFO	REPT C/D %1 %2 %3 %4 %5 %6 %7
276	14	MAN	OP LOG %1 %2 %3 %4
277	14	MAN	%1 LOG %2 %3 %4 %5 %6
279	14	INFO	OP LOG %1 %2 SEGMENT %3
280	1	INFO	%1 %2 %3 %4
281	1	MAN	OP STATUS DISKUSE STOPPED
282	1	MAN	%1 %2%3 %4 %5 %6
283	1	MAN	%1 CLK STOPPED
284	1	INFO	%1 %2%3 %4 %5 %6
285	1	INFO	REPT FIELD MAINT %1
286	1	MAN	COPY TAPE %1 %2 %3 %4
287	1	MAN	%1 CLK COMPLETED
288	1	INFO	%1 %2 %3 %4
289	1	INFO	EXC ENVIR UPROC %1 STOPPED
290	1	MAN	REPT CFT LIB %1 %2
291	1	MIN	REPT CFT LIB %1 %2
292	1	INFO	%1 REPT CFTSHL %2 %3 %4 %5
293	1	MAN	%1 REPT CFTSHL %2 %3 %4 %5
294	1	INFO	REPT %1 %2 %3
295	1	INFO	%1 %2
296	1	INFO	REPT %1 %2 %3%4 %5 %6

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KEY	MSGCLS	ALARM	MESSAGE
297	1	INFO	%1 %2
298	1	CRIT	REPT %1 %2 %3
299	1	MIN	REPT %1 %2 %3
300	26	MIN	REPT PASSWORD BREAK ATTEMPT
301	1	INFO	REPT DLGSHL DEVICE %1 %2 %3
303	1	INFO	REPT BDG %1 %2 %3%4%5
305	27	INFO	VFY %1 COMPLETED
306	27	INFO	VFY %1 COMPLETED
307	1	INFO	REPT RTS %1
308	1	VAR	%1 %2 %3 %4 %5 %6 %7
309	4	INFO	REPT TIME %1 %2:%3:%4
310	1	INFO	REPT INIT DEVICE STATUS
311	1	INFO	REPT BDG FATAL FAULT FLT CODE %1 PA %2
312	1	INFO	REPT %1 %2 %3
313	1	INFO	REPT C/D %1 %2 %3 %4
314	1	INFO	%1 %2 %3
315	1	MAN	%1 %2
316	1	INFO	REPT CIAGETTY %1 %2
317	1	INFO	REPT C/D %1 %2 %3 %4
319	1	ACT	OP PMCR INFO %1
320	1	MAN	VFY TAPE IN PROGRESS %1 RETRIES NEEDED TO READ HEADER %2
321	1	MAN	VFY TAPE IN PROGRESS %1 RETRIES NEEDED TO READ DATA %2 RECORD %3
322	21	INFO	REPT OP PMCR REPORT FORM 1
323	21	INFO	REPT OP PMCR REPORT FORM 2
324	1	CRIT	REPT DISK INDEPENDENT OPERATION MODE ENTERED
325	24	INFO	%1 MHD %2 %3 IN PROGRESS
326	1	MAN	%1 GEN %2 %3 %4 %5 %6
328	1	INFO	REPT MMGR001 BAD DKDRV STAT %1
329	1	INFO	REPT MMGR002 EXCESSIVE RETRIES FOR I/O SWAP
330	1	INFO	REPT MMGR003 ADD %1 MEMORY FAILED. AVAILABLE MEMORY = %2 PAGES
331	1	INFO	REPT MMGR004 SWAP SPACE REQUEST FAILED
332	1	INFO	REPT KAUDPRC FAULT CODE %1 %2 %3
333	1	INFO	REPT MAXINTVL %1
334	1	INFO	REPT DIOP %1 %2 %3 %4
335	12	INFO	REPT %1 TASK STATUS - %2, %3%4 TYPE=%5 ADDR=%6
336	1	INFO	REPT FMGR ECD %1 %2 PID=%3 UID=%4 %5
337	1	INFO	REPT FMGR NON-TASK FAULT %1 ADDR %2
338	1	INFO	REPT LIBC FAULT IN %1 FLTCODE %2 PA %3
339	1	INFO	REPT LIBC ERROR EXEC BAD SHLIB DATA IN PFILE HPATH %1
340	1	INFO	REPT LIBC ERROR EXEC CHANGE ATTRIB FAILED
341	1	INFO	REPT LIBC ERROR EXEC SET CLASS FAILED CLASS %1
342	1	INFO	REPT LIBC ERROR EXEC CHGPCB FAILED %1 %2

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KEY	MSGCLS	ALARM	MESSAGE
343	1	INFO	REPT LIBC ERROR EXEC %1
344	1	INFO	REPT LIBC ERROR EXEC %1
345	1	INFO	REPT LIBC ERROR EXEC ALOCSEG FAILED
346	1	INFO	REPT LIBC ERROR EXEC ADDSEG FAILED SEG NUMBER %1
347	1	INFO	REPT LIBC ERROR EXEC SEG READ FAILED ERRNO %1
348	1	INFO	REPT LIBC ERROR EXEC %1 ERRNO %2
349	1	INFO	REPT LIBC ERROR EXEC BAD LIB HEAD DATA
350	1	INFO	REPT LIBC ERROR FORK COPYSEG FAILED %1 RET %2
351	1	INFO	REPT LIBC ERROR FORK %1
352	1	INFO	REPT LIBC ERROR START COULD NOT OPEN ROOT DIR ERRNO %1
353	1	INFO	REPT LIBC ERROR COULD NOT CREATE TEMP ERROR FILE
354	1	INFO	REPT PMGR ERROR %1 %2 %3
355	1	INFO	REPT PMGR ERROR %1 %2 %3
356	1	INFO	REPT PMGR ERROR %1 %2 %3
357	1	INFO	REPT PMGR ERROR %1 %2 %3
358	1	INFO	REPT PMGR ERROR %1 %2 %3
359	1	INFO	REPT PMGR ERROR %1 %2 %3 %4
360	1	INFO	REPT PMGR ERROR %1 %2 %3
361	1	INFO	REPT PMGR ERROR %1 %2 %3 %4
362	1	MAN	%1
363	1	MAN	%1%2%3%4%5%6%7 %8
364	1	MAN	%1
366	22	INFO	REPT ULARP %1 %2 %3
367	22	ACT	REPT ULARP %1 %2 %3
368	1	INFO	OP ULARP %1 %2
369	24	MAJ	%1 %2 %3 FINAL SUMMARY
373	6	INFO	REPT ERSLOT
374	6	INFO	REPT ERSLOT
375	6	INFO	REPT ERSLOT
376	6	INFO	REPT ERSLOT
377	6	INFO	REPT ERSLOT
378	6	INFO	REPT ERSLOT
379	6	INFO	REPT ERSLOT
380	6	INFO	REPT ERSLOT
381	6	INFO	REPT ERSLOT
382	6	INFO	REPT ERSLOT
383	7	INFO	REPT ERSLOT
384	6	INFO	REPT ERSLOT
385	6	INFO	REPT ERSLOT
386	6	INFO	REPT ERSLOT
387	6	INFO	REPT ERSLOT
388	6	INFO	REPT ERSLOT
389	6	INFO	REPT ERSLOT

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KEY	MSGCLS	ALARM	MESSAGE
390	6	INFO	REPT ERSLOT
391	6	INFO	REPT ERSLOT
392	6	INFO	REPT ERSLOT
393	6	INFO	REPT ERSLOT
394	6	INFO	REPT ERSLOT
395	6	INFO	REPT ERSLOT
396	6	INFO	REPT ERSLOT
397	6	INFO	REPT ERSLOT
398	6	INFO	REPT ERSLOT
399	6	INFO	REPT ERSLOT
400	6	INFO	REPT ERSLOT
401	5	INFO	REPT PMSLOT
402	5	INFO	REPT PMSLOT
403	1	INFO	REPT RMF %1 %2
404	1	INFO	REPT RMF %1 %2
405	1	INFO	REPT ADP %1 %2 %3 %4 %5 %6
406	1	MAN	%1 %2 COMPLETED
407	1	INFO	REPT INHADM FAULTED FCODE = %1
408	1	INFO	REPT INHADM UNABLE TO MAINTAIN INHIBITS
409	1	INFO	REPT INHADM CANNOT GET UCB RECORD
410	1	INFO	REPT INHADM UNABLE TO SEND INHIBIT MESSAGE TO DRIVER %1
411	1	MIN	REPT INHADM MINOR ALARM FROM INHIBIT ADMINISTRATOR
412	1	ACT	OP ERRCHK MESSAGE STARTED
413	1	ACT	OP ERRCHK MESSAGE IN PROGRESS
414	1	INFO	%1 %2 ABORTED %3
415	1	INFO	SW CU ABORTED %1
416	1	MAN	DUMP OFFLINE CACHE %1 %2
417	1	INFO	REPT CONFIG FAULT TYPE %1 INACCESSIBLE RID = %2 PID = %3 ASSERT = %4
418	1	INFO	REPT CONFIG FAULT TYPE %1 UNIT = %2 %3 %4 %5 PID = %6 ASSERT = %7
419	1	MIN	REPT CONFIG RECONFIGURATION TYPE %1 UNIT = %2 %3 %4 %5 PID = %6
420	1	INFO	REPT CURSTRMV FAULT TYPE %1 INACCESSIBLE RID = %2 LOCID = %3
421	1	INFO	REPT CURSTRMV FAULT TYPE %1 UNIT = %2 %3 %4 %5 LOCID = %6
422	1	INFO	REPT CURSTRMV FAULT TYPE %1 UNIT = %2 %3 %4 %5 %6 %7 %8
423	1	INFO	REPT CURSTRMV FAULT TYPE %1 CHECKSUM FAILED IN SLOT %2 LOCID = %3
424	1	INFO	RST CU %1 IN PROGRESS
425	1	MIN	REPT CU %1 MAINTENANCE INTERRUPT %2
426	1	MAJ	REPT PHASE 1 IN PROGRESS

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KEY	MSGCLS	ALARM	MESSAGE
427	1	MAN	OP MEMERRS CANNOT OPEN NEW TEMP FILE
428	1	MAN	OP MEMERRS %1
429	1	MAN	OP MEMERRS NO MEMLOG FILES
430	1	INFO	REPT PCPAUD FAULT TYPE %1 ASSERT = %2
431	1	INFO	REPT PCPMD FAULT TYPE %1 INACCESSIBLE RID = %2 ASSERT = %3
432	1	INFO	REPT PCPMD FAULT TYPE %1 UNIT = %2 %3 %4 %5 ASSERT = %6
433	1	INFO	REPT CURSTRMV CU RESTORE CONTINUING DIAGNOSTIC FAILURE IN NON-CRITICAL UNIT
434	1	MAN	OP AUDERR %1
435	1	INFO	%1 ABORTED ECD INTERFACE ERROR %2 %3 %4
436	1	MAN	OP AUDERR COMPLETED - NO AUDIT RECORDS IN ECD
437	1	INFO	OP AUD COMPLETED - NO AUDIT RECORDS IN ECD
438	1	INFO	%1 ABORTED CANNOT OPEN OUTPUT FILE %2
439	1	MAN	OP AUD %1
440	1	INFO	REPT AUDSTAT %1
441	1	MAN	REPT AUDSTAT COMPLETED
442	1	MAN	OP FNAME %1
443	1	INFO	OP FNAME COMPLETED - NO MATCH ON %1
444	15	MAN	OP EMERSTAT COMPLETED
445	15	MAN	OP EMERSTAT COMPLETED
446	15	INFO	REPT SIMCHK %1 %2 %3 %4 %5
447	15	ACT	REPT SIMCHK %1 %2 %3 %4 %5
448	15	MIN	REPT SIMCHK %1 %2 %3 %4 %5
449	15	INFO	REPT %1 LOST
450	15	ACT	REPT EMERGENCY DUMP PARTITION FULL
451	15	ACT	REPT FILESYS %1 OVERFLOW %2
452	15	MIN	REPT FILESYS %1 OVERFLOW %2
454	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
455	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
456	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
457	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
458	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
459	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
460	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
465	6	INFO	REPT ERSLOT
467	1	INFO	OP ULARP %1 %2
472	1	INFO	OP ULARP STOPPED - CANNOT CREATE TEMPORARY FILE %1
473	1	MIN	REPT REX MINOR ALARM %1
474	1	INFO	REPT %1 FOR %2 %3 %4 %5
475	1	MAJ	REPT %1 FOR %2 %3 %4 %5
476	1	MIN	REPT %1 FOR %2 %3 %4 %5
477	16	ACT	OP %1 MESSAGE STARTED
478	16	ACT	OP %1 COMPLETED

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KEY	MSGCLS	ALARM	MESSAGE
479	16	ACT	OP %1 INTERFACE ERROR, ERRNO = %2
493	1	MAN	%1 %2 %3 %4 %5 %6 %7 %8 %9 #G%10
494	1	MAN	%1 %2 %3 %4 %5 %6 %7 #G%8
495	1	INFO	REPT GRASP %1
496	1	ACT	%1 UMEM %2 WAS %3 NOW %4
497	1	MAN	INH UTIL COMPLETED %1
498	1	MAN	%1 %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10
499	1	INFO	REPT GRASP RMBPT %1 COMPLETED
500	1	MAN	REPT GRASP BREAKPOINT FIRED
501	1	INFO	REPT GRASP BREAKPOINT %1 IN CRITICAL PLACE REMOVED
502	1	MAN	%1 %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8
503	1	MAN	%1 %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9
504	1	ACT	CLR UMEM COMPLETED CKT FAILURE #G%1
505	1	ACT	CLR UTILFLAG %1 COMPLETED CKT FAILURE #G%2
506	1	MAN	%1 %2 %3 %4 %5 %6 NOT STARTED NGUID
507	1	MAN	OP UMEM STOPPED COULD NOT CREATE %1 #G%2
508	1	MAN	OP UMEM COMPLETED NO OUTPUT #G%1
509	1	MAN	OP UMEM COMPLETED %1 LINES WRITTEN TO %2 FROM %3 #G%4
510	1	MAN	%1 %2 %3 %4 %5 %6 COMPLETED #G%7
511	1	MAN	%1 %2 %3 %4 %5 %6 COMPLETED #G%7
514	1	MAN	%1 %2 %3 %4 %5 %6 COMPLETED #G%7
515	1	MAN	OP UTIL COMPLETED #G%1 - #G%2
517	254	MIN	REPT SOP CANNOT OPEN SCC CHANNEL
518	1	INFO	REPT FMGR %1 IN FILE SYSTEM %2
519	1	MAN	%1 %2 %3 %4
520	1	MAN	BP NUMBER %1 AT %2
521	1	MAN	MISMATCH AT %1 IN SECTION %2
522	1	MAN	CORE CONTENTS %1 %2 %3 %4
523	1	MAN	DISK CONTENTS %1 %2 %3 %4
524	1	MAN	DISK AND CORE ARE EQUAL FOR %1
525	1	MAN	THE CORE SIZE FOR SEGMENT %1 IN SEGMENT MAP FOR %2 IS OVER X’20000
526	1	INFO	UPD AUTOMATION %1
527	1	MAN	UPD REPT %1
528	1	MAN	UPD COMMAND %1 %2 %3
529	2	MAN	UPD DISPLAY UPDATE DATABASE RECORD NUMBER=%1 GEN=%2
530	2	MAN	UPD DISPLAY UPDATE DATABASE RECORD NUMBER=%1 GEN=%2
531	2	MAN	UPD DISPLAY SUMMARY REPORT GEN=%1
532	2	MAN	UPD DISPLAY BACKUP DATABASE RECORD NUMBER=%1 GEN=%2
533	1	MAN	UPD BLDBOOT REPT
534	1	MAN	%1

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KEY	MSGCLS	ALARM	MESSAGE
535	1	MAN	IN REMOTE ERROR 10, ERRNO = %1
536	1	MAN	UPD REPT INFORMATION
537	1	MAN	UPD NEW FUNCTION ADDRESSES FOR %1
538	1	INFO	REPT FMGR %1 TABLE %2 FAIL
539	2	MAN	%1 VERSION %2 %3 %4 %5 %6 %7
541	2	MAN	UPD VFYCON - TABLE OF INCONSISTENCIES
542	1	MAJ	REPT MOP CANNOT UNMOUNT DEVICE %1 ERROR = %2
545	1	MIN	UPD AUTOMATION %1
546	1	MAJ	UPD AUTOMATION %1
547	25	INFO	REPT DKDRV WARNING, MHD %1 PARTITION %2 IS WRITE RESTRICTED,
549	1	INFO	VFY FILE %1 %2
550	1	INFO	VFY FILE %1 %2
551	1	INFO	VFY FILE %1
554	1	INFO	REPT DKDRV WARNING, MHD %1 EXCEEDS LONG TERM FAILURE THRESHOLD
555	1	MAN	%1 %2 %3 %4 %5 %6 COMPLETED #G%7
557	1	INFO	VFY FILE CANNOT PROCESS %1
558	12	VAR	AUD ENV=RTR %1 %2 %3
559	1	MAJ	VFY FILE VERIFICATION FAILURE ON FILE %1
560	1	INFO	REPT FMGR ACCESS WINDOW TO BLOCK DEVICE FOR MOUNTED FILE SYSTEM IS %1
561	1	MAJ	REPT FMGR %1 UNMOUNTED DUE TO DISK REMOVAL
562	14	MAN	OP DFCELOG %1 %2
563	14	INFO	OP DFCELOG IN PROGRESS %1 %2 SEGMENT %3
564	27	INFO	VFY %1 COMPLETED
565	1	MAN	UPD REPT WARNING
566	1	INFO	OP:UMEM STOPPED. TRACE DEFINED ON CU %1
567	1	MAN	%1 %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10
568	24	MAN	LOAD DFC %1 %2 %3 %4 %5
569	24	MAJ	%1 MHD %2 EARLY TERM VFY FAILED %3
570	24	MAN	OP DFC %1 INFO
571	24	MAN	OP DFC %1 INFO
572	24	MAN	OP MHD %1 INFO
573	24	MAN	DUMP MHD %1 DEFECT TABLE %2
574	24	MAN	REPT DKDIP MESSAGE
575	24	MAN	REPT DKDIP MESSAGE
576	24	MAN	REPT DKDIP MESSAGE
577	25	INFO	REPT DFC %1 %2 %3
580	16	MAN	OP %1 IN PROGRESS
582	16	ACT	OP %1 IN PROGRESS
583	1	INFO	REPT FMGR UNMOUNT FAILED: PROCESS %1 HAS OPEN FOR INODE %2 FOR %3
585	254	INFO	REPT IODRV ERR %1 %2 %3 %4 %5 %6 %7 %8
586	1	INFO	REPT %1 %2 %3 %4 %5 %6 %7
588	16	MAN	OP %1 RETRY LATER - %2

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KEY	MSGCLS	ALARM	MESSAGE
589	16	ACT	OP %1 RETRY LATER - %2
590	0	MAJ	REPT %1 %2 %3
591	1	INFO	%1 AUD NOT STARTED
593	15	MAN	OP EMERSTAT COMPLETED
594	15	MAN	OP EMERSTAT COMPLETED
595	1	INFO	STOP AUD NOT STARTED
596	254	CRIT	REPT UNIX INIT CANNOT MOUNT %1 %2 %3 ERRNO %4
597	1	MAN	OP MEMERRS CANNOT RETRIEVE MEMLOG RECORD FROM ECD
598	1	MAN	OP MEMERRS CANNOT OPEN ECD FOR MEMLOG
599	254	INFO	REPT CSOP BAD DEVICE DEFINITIONS IN ECD
600	1	MAN	OP MEMERRS COMPLETED
601	1	MAJ	%1 %2 %3 %4 %5 %6 %7
602	1	INFO	REPT FMGR PROCESS KILLED BY UNCONDITIONAL MOUNT
603	1	MIN	REPT SYSTEM IS IN MINIMUM CONFIGURATION MODE
604	1	MAN	REPT MKDSK %1 NEXT TAPE IN SEQUENCE
607	12	CRIT	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
610	24	MAN	LOAD MHD %1 DEFECT TABLE COMPLETED
611	24	MAN	LOAD MHD %1 DEFECT TABLE COMPLETED
612	24	MAN	DUMP MHD %1 DEFECT TABLE COMPLETED
613	24	MAN	REPT DKDIP MESSAGE
615	1	MAN	WARNING: PROCESS INSTANCE DOES NOT EXIST OR
616	1	MAN	USAGE: cmpr -f <filename>
619	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
621	24	MAN	CLR MHD %1 MAEC %2 %3 %4
623	1	MAN	UPD ISG %1 CANNOT OPEN %2 %3
624	1	MAN	UPD ISG %1 FAILED TO %2
625	1	MAN	UPD ISG %1 CAN'T FIND %2
626	1	MAN	UPD ISG %1 WRITE FAILED
627	1	MAN	UPD ISG BF_FCHK FILE %1 IS NOT A SINGLE EXTENT CONTIGUOUS FILE
628	1	INFO	%1 ABORTED CANNOT WRITE OUTPUT FILE %2
629	1	MIN	REPT EAI %1 SELECTED ON EAI PAGE
630	1	MAN	UPD ISG PF_FLAGS PFILE %1 %2
631	1	MAN	UPD ISG %1
632	1	MAN	UPD ISG BT_KERN MISSING OR INVALID %1
633	1	MAN	UPD ISG MAIN CRC VALUE WAS NOT %1
634	1	MAN	UPD ISG DB_CKPTH UNABLE TO FIND MATCH IN SGEN2_REC FOR %1
635	1	MAN	UPD ISG %1 SEGMENT %2 IN %3 IS MARKED COMMON, BUT CSIZE IS ZERO
636	1	MAN	UPD ISG PF_GETFILE FILE %1 MUST BE 3BSWABBED
637	1	MAN	UPD ISG %1 FILE %2 HAS %3 %4
638	1	MAN	UPD ISG %1 INVALID %2
639	1	MAN	UPD ISG %1 EXCEEDED MAX NUMBER OF PFILE SEGMENTS

KEY	MSGCLS	ALARM	MESSAGE
640	1	MAN	UPD ISG VA_SETSEG SEGMENT %1 ALREADY IN USE
641	1	MAN	UPD ISG PF_SEGCLASS SEGMENT %1 OF PROCESS %2 HAS FSIZE %3
642	1	INFO	%1 OMDB ABORTED
647	1	MAJ	REPT EAI %1 SELECTED ON EAI PAGE
648	1	INFO	REPT SIM UTILITY IDS OF PROCESSES KILLED DURING CFT INIT
650	1	INFO	OP REXINH CANNOT WRITE TO %1 WRITE FAILURE ON KEY # %2
651	1	INFO	REPT FMGR MOUNT FAILED:
653	24	MAN	REPT DKDIP MESSAGE
654	24	MAN	REPT DKDIP MESSAGE
655	1	MAJ	VFY FILE VERIFICATION FAILURE ON FILE %1
656	16	MAN	OP %1 CANNOT WRITE TO %2 FAILED ON KEY # %3
657	16	ACT	OP %1 CANNOT WRITE TO %2 FAILED ON KEY # %3
658	1	INFO	%1 %2 COMPLETED WITH %3
659	1	MAJ	REPT EAI SANITY TIMERS ARE INHIBITED
660	1	MAJ	VFY FILE %1 %2
662	24	MAN	REPT DKDIP MESSAGE
663	24	MAN	LOAD MHD %1 DEFECT TABLE COMPLETED
664	24	MAN	REPT DKDIP MESSAGE
665	24	MAN	DUMP MHD %1 DEFECT TABLE COMPLETED
666	24	MAN	%1 MHD %2 %3 ABORTED %4
667	1	INFO	%1 ABORTED CANNOT CREATE TEMPORARY FILE
668	1	INFO	OP AUD COMPLETED - NO AUDITS RUNNING
670	1	MAJ	VFY FILE %1 %2
672	16	MAN	OP %1 %2 - INVALID UNIT %3
673	26	INFO	REPT LGN %1 ON %2 %3
674	1	INFO	REPT MMGR005 AVAILABLE %1 MEMORY NOW %2 PAGES
675	1	INFO	REPT LIBC PROGRAM ADDRESS BACKTRACE UTID: %1
676	1	INFO	REPT LIBC SAVE STATE REGISTERS UTID: %1
677	1	INFO	REPT LIBC ARGUMENTS TO FUNC %1 UTID: %2
678	1	INFO	REPT FMGR DIR SW FAILED: INODE %1 OPEN BY PID %2 ON %3
679	7	INFO	REPT ERSLOT
680	7	INFO	REPT ERSLOT
681	7	INFO	REPT ERSLOT
682	7	INFO	REPT ERSLOT
683	7	INFO	REPT ERSLOT
684	7	INFO	REPT ERSLOT
685	6	MAJ	REPT ERSLOT
686	5	INFO	REPT PMSLOT
687	5	INFO	REPT PMSLOT
689	1	VAR	%1 %2
690	1	INFO	%1 %2
691	1	MIN	STOP OFLBOOT STARTED

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KEY	MSGCLS	ALARM	MESSAGE
692	6	INFO	REPT EAI ** WARNING ** %1 ON CU %2.
693	12	VAR	AUD ENV=RTR %1 %2 %3 DATA %4 REPORT %5
694	24	MAN	LOAD MHD %1 FIRMWARE %2 %3 %4
695	24	MAN	OP MT %1 INFO
696	1	VAR	%1 %2
697	1	CRIT	REPT FAN %1 %2 %3
698	1	MAJ	REPT FUSE %1 %2
699	1	INFO	EXC OFLBOOT TERMINATED
700	1	INFO	SW OFLBOOT TERMINATED
701	1	INFO	STOP OFLBOOT TERMINATED
702	1	MAN	%1 %2
703	1	MIN	REPT EAI APPLICATION PARAMETER IS SET
704	1	VAR	%1 %2
705	1	VAR	%1 %2
706	1	VAR	%1 %2
707	1	VAR	%1 %2
708	1	VAR	%1 %2
709	1	VAR	%1 %2
711	1	INFO	REPT OLBCONFIG FAULT TYPE %1 INACCESSIBLE RID = %2 PID = %3 LOCID = %4
712	1	INFO	REPT OLBCONFIG FAULT TYPE %1 UNIT = %2 %3 %4 %5 PID = %6 LOCID = %7
713	1	MAN	OP MEMERRS %1 %2
714	1	INFO	REPT ECD BTPARM RECORD RESTORED WITH VALUES AT LAST BOOT
715	2	INFO	REPT SOP INVALID OUTPUT REQUEST %1 %2
716	1	INFO	VFY FILE VERIFICATION FAILURE ON FILE %1
717	1	MIN	REPT ECD BTPARM RECORD MODIFIED
718	1	ACT	STOP DMQ COMPLETED
719	1	VAR	%1 %2
720	11	MIN	AUD ENV=RTR ECD ERROR %1 - %2
721	13	MIN	RCV %1 %2 DB %3 %4
722	13	INFO	RCV %1 %2 %3 %4 %5 %6 %7 %8
723	1	MAN	%1 OMDB AUTO CLEAR NOT ALLOWED FOR THE FOLLOWING KEYS:
724	10	INFO	REPT DCIDRV INFO CODE %1 %2 %3
725	10	INFO	REPT %1 %2 INFO CODE %3 %4 %5
726	10	INFO	REPT DCIDRV ERROR CODE %1 %2 %3
727	10	INFO	REPT %1 %2 ERROR CODE %3 %4 %5
728	10	MIN	REPT %1 %2 ERROR COMPLETION CODE %3
729	10	INFO	REPT %1 %2 ERROR COMPLETION CODE %3
730	10	INFO	REPT %1 %2 ERROR - %3 STATUS %4
731	10	INFO	REPT %1 %2 FAULT CODE %3 %4
732	10	INFO	REPT %1 %2 UNIDENTIFIED RESPONSE WD1=%3
733	10	INFO	REPT %1 %2 ERROR STATUS %3 MASK %4 EXP %5
734	10	MAJ	REPT %1 %2 AUTONOMOUS RESPONSE %3

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KEY	MSGCLS	ALARM	MESSAGE
735	10	MIN	REPT %1 %2 AUTONOMOUS RESPONSE %3
736	10	INFO	REPT %1 %2 AUTONOMOUS RESPONSE %3
737	10	INFO	REPT DCIDRV RECEIVED UNKNOWN RCV MESSAGE %1 %2 %3
738	10	INFO	REPT %1 %2 %3 %4
740	10	INFO	REPT %1 %2 CHANNEL %3 %4 CODE %5 %6 %7
741	27	INFO	VFY AUTH COMPLETED
742	1	INFO	REPT ADPAB - COMMAND LINE ERROR
743	1	ACT	REPT DGN CU ERROR %1
745	254	INFO	REPT CSOP CANNOT RETRIEVE FILENAME FROM %1 LOCATION
746	1	MAN	UPD FLASH MEMORY %1 %2 %3 %4
747	1	INFO	REPT FUSE %1 %2
748	1	INFO	COPY BKDISK %1
749	24	MAN	REPT DKDIP MESSAGE
750	24	MAN	REPT DKDIP MESSAGE
751	24	MAN	REPT DKDIP MESSAGE
752	1	MAN	VFY TAPE STOPPED UNABLE TO POSITION TAPE AT BEGINNING OF SESSION %1 VOLUME %2
753	1	MAN	VFY TAPE IN PROGRESS SESSION %1 VOLUME %2 %3
754	1	MAN	VFY TAPE %1
755	1	MAN	VFY TAPE STOPPED %1 HEADER %2 RECORD %3 IN SESSION %4 VOLUME %5
756	1	MAN	VFY TAPE IN PROGRESS
757	1	MAN	VFY TAPE IN PROGRESS
758	24	MAN	UPD FLASH DFC %1 %2 %3 %4
760	1	INFO	%1 BKTAPE %2%3%4
761	1	INFO	%1 BKTAPE %2%3%4
762	1	INFO	DUMP BKTAPE TD %1 IN PROGRESS
763	1	INFO	DUMP BKTAPE TD %1 IN PROGRESS
764	1	INFO	STOP BKDISK %1
765	1	INFO	REPT DCIDIP %1 %2 %3
766	254	MAN	OP IOP %1 INFO
767	254	MAN	OP IOP %1 INFO %2 %3 %4
768	1	INFO	REPT HPMON %1 %2
769	1	INFO	OP ABD %1
770	1	INFO	OP ABD COMPLETED
771	1	MIN	REPT EAI BOOT DISK SELECTION
772	1	MAJ	REPT EAI BOOT DISK SELECTION
773	1	INFO	CFR DUPLEXDISKS %1
774	1	INFO	CFR DUPLEXDISKS STOPPED WITH ERROR %1
775	1	MIN	REPT EAI ALTERNATE BOOT DISK MISMATCH %1
776	1	MAJ	REPT EAI ALTERNATE BOOT DISK MISMATCH %1
777	1	MAN	CLR IOMEM %1 %2
778	1	INFO	REPT EAI OFF-NORMAL SELECTION STATUS
781	1	MAN	UPD REPT INFORMATION

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KEY MSGCLS ALARM MESSAGE

ID . . . . . APP-OP-FNAME
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

Explanations of OP-FNAME Output Messages

Explanation	Reason for Failure
CANNOT CHANGE DIRECTORY TO/dev	Unable to change working directory to /dev.
CANNOT FIND FILE SYSTEM	Unable to find the first directory of the mounted file system.
CANNOT OPEN FILE SYSTEM	Cannot open the file system at its mount point.
CANNOT READ SUPERBLOCK	Unable to read the superblock for the file system.
CANNOT SEEK TO SUPERBLOCK	Unable to seek to the file system's superblock.
INCONSISTENT DATA 1	The greater value must be equal to or larger than the lower value in the range.
INVALID CHARACTER 1	The first or only range value is not an integer.
INVALID CHARACTER 2	The last range value is not an integer.
INVALID KEYWORD 1	FS must be the first keyword.
INVALID KEYWORD 2	INODE or BLOCK must be the second keyword,
MISSING DATA 1	No file system name given.
MISSING DATA 2	No inode or block # given.

Explanations of OP-FNAME Output Messages (continued)

Explanation	Reason for Failure
`MISSING KEYWORD 1`	FS must appear after FNAME.
`MISSING KEYWORD 2`	Either INODE or BLOCK must be entered.
`MOUNT TABLE ERROR`	Unable to obtain the mount table from the file manager.
`RANGE ERROR 1,` *a*	File system requested does not exist. *a* is the value entered.
`RANGE ERROR 4`	One of the following: Either the lower or only INODE value is less than two or the greater or only INODE value is larger than the maximum allowed in the file system.
`RANGE ERROR 5`	The greater or only BLOCK value is larger than the maximum allowed in the file system.
`RANGE ERROR 6`	The lower or only BLOCK value is less than the minimum allowed in the file system.

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ID . . . . . APP-OST
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

Kernel Process OST Code Definitions

OST CODE	OST NAME (ARGUMENTS)
1	`alocmsg(nbytes, owner)`
2	`atchintr(process,vector,entry,psw,ident)`
3	`dequeuem(process, owner)`
4	`dqtype(process,type,owner)`
5	`dtchintr(process,vector)`
6	`freemsg(msgbuf, owner)`
7	`enabintr(process, vector)`
8	`getime()`
9	`iolock(segid)`
10	`iomap(segid,offset,count)`
11	`ioqueuem(msgbuf, owner)`
12	`messink(msgbuf, owner)`
13	`prtimer(process,time)`
14	`psignal(channel,evflags)`
15	`psleep(process,pattern)`
16	`ptimer(process,time)`
17	`top_pid()`
18	`pwakeup(pattern)`
19	`queuem(msgbuf, owner)`
20	`queuemn(msgbuf, owner)`
21	`riteback(segid)`
22	`rtnint(svstate)`
23	`segname(segid,segnam)`
24	`sendevent(process,evflags)`
25	`sendfault(process,fcode)`
26	`setime(time)`
27	`timeleft(process)`
28	`uniolock(segid)`
29	`dqlimit(process,ltype,utype,owner)`
30	`kmsgwflt(buf, fcode, owner)`

Kernel Process OST Code Definitions *(continued)*

OST CODE	OST NAME (ARGUMENTS)
31	rtiflt(fcode)
32	kconport(portnum,process)
33	kdetport(portnum, process)
34	kportid(portnum)
35	bkpt_irm(segid, offset, nbytes, new_code, save_code, uf)
36	rpaddress(segid, offset)
37	move_ut(address)
38	field update ost
39	field update ost
40	send_err(string, num)
41	rtbp(save, opcode)
42	atchchan(chandstruct)
43	dschmask()
44	ntermclass(type, class, bitspot)
45	evclass(class, event)
46	getclass
47	setclass(pid, class)
48	fltclass(class, fault)
49	kpagemap()
50	phase(d_l, a_l, code, uid)
51	disabintr(process, vector)
52	enable_ev(process, events)
53	mask_ev(process, mask)
54	kvt_kp()
55	overload(parms1, parms2, class, pnum)
56	fupatch(action, patch)
57	rcevent(pnum)
58	termutil(utilid)
59	idlevent(pid, event)
60	inhibitdv(ivect,action,im,srm)
61	kublkseg(segid)
62	ksegsize(segid)
63	ksegadd(pn,sn,sgx,siz,perm,name)
64	krmvseg(process, segnum)
65	prctype(pnum)
66	phasewop(d_l,a_l,code,uid,action)
67	ep_attach(segindx, pid)
68	dsksimplex()
69	dskduplex()
70	sysdlm()

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Kernel Process OST Code Definitions *(continued)*

OST CODE	OST NAME (ARGUMENTS)
71	`kdlmnkill(pnum, flag)`
72	`dtchchan(chandstruct)`
73	`kgetnpas(&word)`
74	`getemminfo(&word)`
75	`getmodule(segid)`
76	`oldmsg(type, owner)`
77	`maxintvl(process,interval,omsg,prms,failure)`
78	`dionotify(pnum, flag)`
136	`kshartxt(segid, sghdx, sgnum)`

Supervisor / UNIX® Process OST Code Definitions

OST CODE	OST NAME (ARGUMENTS)
1	addseg(segnum, flag)
2	adduser(process)
3	alockseg(segnum)
4	alocseg(segnum,size,partition,0L)
4	alocseg(segnum,size,partition,name)
5	free slot
6	crb(psync, flag)
7	lbolt()
8	kpstart(exl,segnum, class, dctflags, pcls1, pcls2)
9	clrevent(eflag)
10	copyseg(segnum,newid,msident,rtcnt)
11	uplockseg(segid)
12	conport(portnum)
13	detport(portnum)
14	pfork1(segnum)
15	dropseg(segnum)
16	enevent(eflag)
17	event(process,eflag)
18	execute(sp, pcbndx, stkndx, pevp, class, pcl1, pcl2, flags)
19	freeseg(segnum,mode)
20	smsgwflt(buf,fcode)
21	err_rpt(string, num)
22	getime()
23	getmsg(msgbuf)
24	dctreset(state,pnum)
25	gettype(msgbuf)
26	growseg(segnum,nbytes,oszptr)
27	inhibit()
28	ioqueuem(msgbuf)
29	jobchg()
30	lockid(segid)
31	lockseg(segnum)
32	mgetlim(msgbuf)
33	getclass(pid)
34	setclass(pid, class)
35	pfork2(segnum)

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Supervisor / UNIX® Process OST Code Definitions *(continued)*

OST CODE	OST NAME (ARGUMENTS)
36	`openseg(segnum,segid,segflags,mode)`
37	`permit()`
38	`pstart(segnum)`
39	`pswap()`
40	`punswap()`
41	`field update ost`
42	`field update ost`
43	`rmovseg(segnum)`
44	`rti(evmask,svstate)`
45	`rtoutset(ticks)`
46	`segname(segid,name)`
47	`sendcpmsg(msgbuf)`
48	`sendfault(process,fcode)`
49	`sendmsg(msgbuf)`
50	`sendport(msgbuf)`
51	`setewait(eflag,opt)`
52	`setime(time)`
53	`setmap(segnum,access,segndx)`
54	`setprior(priority)`
55	`invalid`
56	`sizeseg(segnum)`
57	`sleep(pattern)`
58	`sndmsgfrom(msgbuf)`
59	`spacaloc(segnum)`
60	`sswap(segnum)`
61	`sunswap(segnum)`
62	`portid(portnum)`
63	`toutset(ticks)`
64	`ulockid(segid)`
65	`ulockseg(segnum)`
66	`unblkseg(segnum)`
67	`wakeup(pattern)`
68	`writeseg(segnum)`
69	`kvt_sup()`
70	`fupatch(action, patch)`
71	`termutil(utilid)`
72	`unused`
73	`utilset(utilid)`
74	`clrname(segname)`

Supervisor / UNIX® Process OST Code Definitions *(continued)*

OST CODE	OST NAME (ARGUMENTS)
75	`chg_attrib(flag,pri,slice,lib1,lib2,name)`
76	`sprctype(pid)`
77	`ntermclass(type, class, bitspot)`
78	`sgetpnum(utilid)`
79	`ssettflag(prcnum, flag)`
80	`sdlmnkill(pnum)`
81	`sadopt(pnum)`
82	`schgpcb(field, value)`
83	`sgetnpas(&word)`
84	`getemminfo(&word)`
85	`getmodule(segid)`
86	`smaxintvl(interval,omsg,prms,failure)`
87	`sevclass(class, event)`
88	`sdionotify(flag)`
127	`sendg(msgbuf)`

ID . . . . . APP-SUPR-A
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.25
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

System Update Error Codes Appendix

1. Introduction

This appendix contains the error codes for System Update in Release 1. The error codes consist of six decimal digits. The first three digits indicate the nature of the error. The next two digits (xx) indicate the module in which the error occurred (that information is not provided here). The last digit (the error number, y) is used to differentiate errors of the same error code that can occur multiple times in the same module. To locate exactly which error in the module failed, each error is given its own unique error number.

2. Errors Associated with UNIX® System Calls

More information about these UNIX® System Calls can be found in *Output Message Manuals* under System Error Codes Appendix, `SYSERR-APP`. The error code that corresponds with the System Call that failed is kept in the System Update log file. It can be read by executing `OP:GEN;READLOG`. The log entry specifying the UNIX® error number will be the error code for the UNIX® call that failed. The manual pages for these System Calls may be found in the *UNIX® RTR Operating System Manuals.*

`101xxy` `mkseg() error.`

The UNIX® system call `mkseg()` failed when the System Update Enter command tried to create a segment using `makeseg()` that was to be used as a buffer when reading in a new partition from the LDFT tape and writing it to disk. `Makeseg()` may have failed because there was not enough space in memory for the segment. After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

`102xxy` `open() error`.

The UNIX® system call `open()` failed when System Update attempted to open the System Update log file. The open may have failed because

- the System Update log file does not exist (`/etc/log/suprlog`)
- one of the directories in the System Update log file pathname (`/etc/log`) does not exist or does not have read permissions
- the System Update log file is not readable or writable depending on what it is being opened for (reading or writing)

- too many files are open

After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

`103xxy` `read() error.`

The UNIX® system call `read()` failed when System Update tried to read an entry from the System Update log file. The read may have failed because of

- a damaged log file
- physical I/O errors
- a bad `read()` parameter
  - — bad buffer address where the data is to be read
  - — number of bytes to be read is bad
  - — file descriptor indicating the file to be read from is not that of an input file

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`104xxy` `seek() error.`

The UNIX® system call `lseek()` failed when System Update attempted to seek to a particular log entry in the System Update log file. The lseek may have failed because the file descriptor for the log file is undefined, the seek went to a position before the beginning of the log file, or the log file is damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`105xxy` `write() error.`

The UNIX® system call `write()` failed when System Update attempted to write a log entry to the System Update log file. The write may have failed because of

- physical I/O errors
- a bad `write()` parameter
  - — bad buffer address from where the data is to be read
  - — number of bytes to be written is bad
  - — bad file descriptor for the System Update log file to which the data is to be written

Try to continue the update using the `UPD:GEN;CONTINUE` command.

`106xxy` `close() error.`

The UNIX® system call `close()` failed when System Update attempted to close the System Update log file. An incorrect file descriptor for the log file may have been passed to the `close()` command. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the

update over from the beginning of the Enter step.

`107xxy unlink() error.`

The UNIX® system call `unlink()` failed when the System Update Proceed command attempted to unlink (remove) the special device file that was used to copy the System Update log file to the offline disk (offline disk method) or to the backup `/etc` partition (backup partition method). The unlink may have failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the enter step.

`108xxy setio() error.`

The UNIX® system call `setio()` failed when System Update attempted to set the input/output mode for the disk being updated to physical I/O. The setio may have failed because the disk being updated was never opened. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the enter step.

`109xxy mknod() error.`

The UNIX® system call `mknod()` failed when the System Update Restore or Commit command attempted to make a node that would be used to copy the new/old partitions over the old/new partitions using the backup partition method. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then manually execute the applhook process.

`110xxy lcall() error.`

The UNIX® system call `lcall()` failed when System Update attempted to execute applhook (`/prc/supr/applhook`). Applhook may not exist or may not have execution permissions. After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

`111xxy msgenab() error.`

The UNIX® system call `msgenab()` failed when System Update attempted to enable message reception from one of the following processes: Applhook, Continue, the disk driver, MIRA, or SIM. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update

over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing he old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the applhook process.
- If this error occurred during any other System Update process, start the update over from the beginning of the Enter step.

`112xxy` `send() error.`

The UNIX® system call `sendw()` failed when the System Update Continue command either attempted to send an acknowledgement message to the System Update Enter process which is currently running or attempted to send a message to SIM in order to request system initialization information. Try to continue the update again using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`113xxy` `kill() error.`

The UNIX® system call `kill()` failed when the System Update Stop command attempted to terminate the System Update process that is currently running. The kill command may have failed because

- the process to be killed does not exist
- the sending process is not a superuser, and the sending and receiving processes do not have the same effective user ID
- the Process ID (PID) of the process being terminated is damaged in the System Update log; The Stop command passes this PID as a parameter to `kill()`

If the System Update still needs to be stopped, execute the Stop process unconditionally (using the UCL argument on its command line).

CAUTION: If Stop is executed unconditionally, it will attempt to terminated the running System Update process by an extreme method using the `pkill()` command. Some system resources in use by the process may not be released automatically.

`114xxy` `stat() error.`

The UNIX® system call `stat()` failed when System Update attempted to obtain status information about the disk that is to be updated. This function may have failed because the disk does not exist. If this error occurred during the Enter step of System Update, make sure that all destination file names specified on the Enter command line exist. After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

`115xxy` `msgport() error.`

The UNIX® system call `msgport()` failed when System Update attempted to send a message to the disk driver so that System Update could have access to an out of service disk at the partition level rather than at the disk level. The msgport may have failed because

- the disk driver is nonexistent
- the port number specified is invalid
- no process is connected to the specified port
- the message buffer is not in the user address space

Try to continue the update using the `UPD:GEN;CONTINUE` command.

`116xxy` `mount() error.`

The UNIX® system call `mount()` failed when System Update attempted to mount the `/etc` file system so that the System Update log file can be copied to the new generic or the database file system so that the ECD can by updated. The mount may have failed because

- the effective user ID of the process executing the mount is not a superuser
- the specified file system does not exist
- the file system to be mounted is not specified
- the block special file from which the file system is to be mounted is inaccessible or not an appropriate file
- the file system is already mounted
- the directory pathname that the file system is to be mounted on is not a directory
- too many file systems are mounted

Try to continue the update by using the `UPD:GEN;CONTINUE` command.

`117xxy` `unmount() error.`

The UNIX® system call `umount()` failed when System Update attempted to unmount the `/etc/` file system after the System Update log file has been copied to the new generic or the database file system after the ECD has been updated. The umount may have failed because

- the effective user ID of the process executing the umount is not a superuser

- the file system is not mounted
- there are active files on the file system being unmounted

Try to continue the update using the `UPD:GEN;CONTINUE` command.

`118xxy link() error.`

RC/V recognizes the ECD by the name `/mount directory/ecd` where mount directory represents the directory path on which the ecd file system is mounted. But, System Update recognizes the ECD by the name `/mount directory/dmert` or `/mount directory/appdmert`. In order for System Update to use RC/V, it must link its database name with the name that RC/V recognizes. This error occurs when the link fails using the UNIX® system call `link()`. The link may have failed because

- the original name that is being linked to cannot be found
- the new name that is being linked already exists
- the directory that contains the new name does not have write permissions
- the link is done by a user other than a superuser
- the link was attempted on a file that is on another file system
- the file has too many links

If this update is continued using the `UPD:GEN;CONTINUE` command, it will keep failing until this problem is resolved. Start the update over from the beginning of the Enter step.

`119xxy create() error.`

The UNIX® system call `create()` failed when a file was being created under the `/tmp` directory in one of the following situations: the System Update Enter command attempted to create the System Update log file, or the System Update Readlog command attempted to create a buffer used to store log entries that are about to be printed to the terminal and to the ROP. The create may have failed because

- a directory in the pathname of the file to be created is not searchable
- the file to be created does not exist and the directory in which it is to be created does not have write permission
- the file to be created does exist an does not have write permissions
- the file to be created is a directory
- the maximum number of files (20) are already open
- there is not enough space in the `/tmp` file system for the created file

After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

`120xxy  vcall() error.`

The UNIX® system call `vcall()` failed when the System Update Continue command executed the System Update process that is being continued. This function normally fails when the process being executed does not exist or does not have execution permissions. Make sure that all System Update processes in `/prc/supr` have execution permissions. After resolving the problem, re-enter the System Update command `UPD:GEN;CONTINUE`.

`121xxy  rmovseg() error.`

The UNIX® system call `rmovseg()` failed when the System Update Enter command attempted to remove a previously created segment after it was no longer needed. The segment may have been created in the first place to be used as: 1) a buffer used to hold the new generic which was read in from tape and then written to disk, or 2) a buffer used to hold the new generic which was read from the primary partitions and written to the backup partitions using the offline disk method. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`122xxy  mkseg() error.`

The UNIX® system call `mkseg()` failed when the System Update Enter command tried to create a segment using `makeseg()` that was to be used as a buffer when reading in an updated segment from the offline disk and writing it to its backup partition. `makeseg()` may have failed because there was not enough space in memory for the segment. After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

`123xxy  fopen() error.`

The UNIX® system call `fopen()` failed when the System Update Restore or Commit command attempted to open a partition that is to be used to update the old or new generic to the new or old generic. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the applhook process.

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`124xxy` `open() error.`

The UNIX® system call `open()` failed when System Update attempted to open the ECD. The open may have failed because

- the ECD special device file does not exist (`/dev/ecd`)
- the root directory which contains the ECD does not have read permissions
- the ECD is not readable or writable depending on what it is being opened for (reading or writing)
- too many files are open

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the applhook process.
- If this error occurred during any other System Update process, start the update over from the beginning of the Enter step.

`125xxy` `open() error.`

The UNIX® system call `open()` failed when System Update attempted to open the disk that is being updated for one of the following reasons:

- the VTOC needs to be read
- the backup partitions need to be updated during the Enter process using the offline disk method
- the little boot start block address in the VTOC needs to be restored

The `open()` may have failed because

- the disk does not exist
- one of the directories in the disk pathname does not exist or does not have read permissions
- the disk is not readable or writable depending on what it is being opened for (reading or writing)
- too many files are open

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`126xxy  open() error.`

The UNIX® system call `open()` failed when System Update attempted to open one of the partitions that is being updated. The open may have failed because

- the partition does not exist
- one of the directories in the partition pathname does not exist or does not have read permissions
- the partition is not readable or writable depending on what it is being opened for (reading or writing)
- too many files are open

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`127xxy  read() error.`

The UNIX® system call `read()` failed when System Update tried to read the VTOC from the LDFT tape. The read may have failed because of

- physical I/O errors
- a bad read() parameter
  - — bad buffer address where the data is to be read
  - — number of bytes to be read is bad
  - — file descriptor indicating the file to be read from is not that of an input file

Make sure the "head" of the tape drive is clean and continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

`128xxy  read() error.`

The UNIX® system call `read()` failed when System Update tried to read the VTOC from disk. The read may have failed because of

- physical I/O errors
- a bad read() parameter
  - — bad buffer address where the data is to be read
  - — number of bytes to be read is bad
  - — file descriptor indicating the file to be read from is not that of an input file

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

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`129xxy read() error.`

The UNIX® system call `read()` failed when System Update tried to read a data block from an LDFT tape. The read may have failed because of

- physical I/O errors
- a bad `read()` parameter
  - — bad buffer address where the data is to be read
  - — number of bytes to be read is bad
  - — file descriptor indicating the file to be read from is not that of an input file

Make sure the "head" of the tape drive is clean and continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

`130xxy read() error.`

The UNIX® system call `read()` failed when System Update tried to read a partition from the offline disk for one of two reasons: the hash sum needed to be computed to make sure that the partition was written correctly, or the backup partition needed to be updated from its primary partition which contained the new generic (for offline disk method only). The read may have failed because of

- physical I/O errors
- a bad `read()` parameter
  - — bad buffer address where the data is to be read
  - — number of bytes to be read is bad
  - — file descriptor indicating the file to be read from is not that of an input file

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`131xxy read() error.`

The UNIX® system call `read()` failed when System Update tried to read a header from an LDFT tape. The read may have failed because of

- physical I/O errors
- a bad `read()` parameter
  - — bad buffer address where the data is to be read
  - — number of bytes to be read is bad
  - — file descriptor indicating the file to be read from is not that of an input file

Make sure the "head" of the tape drive is clean and continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

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`132xxy lseek() error.`

The UNIX® system call `lseek()` failed when System Update attempted to seek to a particular partition on disk. The lseek may have failed because the file descriptor for the disk is undefined, or the seek went to a position before the beginning of the disk. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the disk may be damaged.

`133xxy lseek() error.`

The UNIX® system call `lseek()` failed when System Update attempted to seek to a previous block on an LDFT tape. A tape read failure may have occurred. If this happens, System Update automatically seeks back to the beginning of the set of blocks it tried to read and tries to read those blocks again. Since a read error may have occurred first, check the possible causes for a read error located at error codes `103xxy`, and `127xxy - 131xxy` and take the action listed there. If a read error is not the problem, make sure the "head" of the tape drive is clean and continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

`134xxy write() error.`

The UNIX® system call `write()` failed when the System Update Readlog command attempted to write log entries to an output buffer which is later spooled to the terminal and to the ROP. The write may have failed because of

- physical I/O errors
- a bad `write()` parameter
  - — bad buffer address where the data is to be read from
  - — number of bytes to be written is bad
  - — bad file descriptor for the buffer to which the data is to be written

The log file cannot be read.

`135xxy write() error.`

The UNIX® system call `write()` failed when the System Update Enter command attempted to write the VTOC to the disk being updated. The write may have failed because of

- physical I/O errors
- a bad `write()` parameter
  - — bad buffer address from where the data is to be read
  - — number of bytes to be written is bad
  - — bad file descriptor for the disk to which the data is to be written

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the

error persists, the disk may be damaged.

`136xxy write() error.`

The UNIX® system call `write()` failed when the System Update Enter command attempted to write a partition to the disk being updated. The write may have failed because of

- physical I/O errors
- a bad write() parameter
  - — bad buffer address where the data is to be read from
  - — number of bytes to be written is bad
  - — bad file descriptor for the disk to which the data is to be written

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the disk may be damaged.

`137xxy fclose() error.`

The UNIX® system call `fclose()` failed when the System Update Restore or Commit command attempted to close a partition that was used to update the old or new generic to the new or old generic. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the applhook process.

`138xxy close() error.`

The UNIX® system call `close()` failed when System Update attempted to close the disk being updated. An incorrect file descriptor for the disk may have been passed to the `close()` command. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the Enter step.

`139xxy close() error.`

The UNIX® system call `close()` failed when System Update attempted to close the ECD. An incorrect file descriptor for the ECD may have been passed to the `close()` command. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the applhook process.
- If this error occurred during any other System Update process, start the update over from the beginning of the Enter step.

`140xxy close() error.`

The UNIX® system call `close()` failed when System Update attempted to close a partition on the disk being updated. An incorrect file descriptor for the disk partition may have been passed to the `close()` command. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`141xxy close() error.`

The UNIX® system call `close()` failed when System Update attempted to close the tape device from which the new generic was read. An incorrect file descriptor for the tape device may have been passed to the `close()` command. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`142xxy unlink() error.`

The UNIX® system call `unlink()` failed when System Update attempted to unlink (remove) the special device file that was used to access the offline disk when updating the backup partitions using the offline disk method. The unlink may have failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`143xxy unlink() error.`

The UNIX® system call `unlink()` failed when System Update attempted to unlink (remove) the special device file that was used to access a partition being updated. The unlink may have failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

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`144xxy unlink() error.`

The UNIX® system call `unlink()` failed when System Update attempted to unlink (remove) a special device file that was used to perform a Recent Change function on the ECD. The unlink may have failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`145xxy setio() error.`

The UNIX® system call `setio()` failed when System Update attempted to set the Input/Output mode for the tape device from which the new generic is to be read to physical I/O. The setio may have failed because the tape device was never opened. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`146xxy setio() error.`

The UNIX® system call `setio()` failed when System Update attempted to set the Input/Output mode for a partition to be updated to physical I/O. The setio may have failed because the partition was never opened. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`147xxy mknod() error.`

The UNIX® system call `mknod()` failed when the System Update Proceed command attempted to make a node that would be used to copy the System Update log file to the offline disk (offline disk method) or to the backup `/etc` partition (backup partition method). Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update from the beginning of the Enter step.

`148xxy mknod() error.`

The UNIX® system call `mknod()` failed when System Update attempted to make a node that would be used to update the backup partitions using the offline disk method. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update from the beginning of the Enter step.

`149xxy mknod() error.`

The UNIX® system call `mknod()` failed when System Update attempted to make a node that would be used to copy the new generic to the offline disk (offline disk method) or to the backup partitions (backup partition method). Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update from the beginning of the Enter step.

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`150xxy mknod() error.`

The UNIX® system call `mknod()` failed when System Update attempted to make a node that would be used to perform a Recent Change function on the ECD. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update from the beginning of the Enter step.

`151xxy fopen() error.`

The UNIX® system call `fopen()` failed when System Update attempted to open a file (located in `/tmp`) that is to be used to create a Recent Change script which is used to change the ECD. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`152xxy fclose() error.`

The UNIX® system call `fclose()` failed when System Update attempted to close the file (located in `/tmp`) that contains a Recent Change script used to change the ECD. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`153xxy sendpw error.`

The UNIX® system call `sendpw()` failed when System Update attempted to send a message to MIRA in order to remove or restore a UCB. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the applhook process.
- If this error occurred during any other System Update process, start the update over from the beginning of the Enter step.

3. Errors Associated with the Input Data

`201xxy` VTOC is not the first piece of data on the mounted LDFT tape.

This error occurred when System Update could not find the VTOC because

- System Update incorrectly thinks it should have the first tape of the sequence and therefore searches for the VTOC

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- the wrong tape may have been mounted; check to make sure that the mounted LDFT tape is the first tape in the sequence

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the problem persists, the LDFT tape may be damaged. Regenerate a new tape.

`202xxy` HEADER and VTOC addresses are different.

While a partition entry was being searched for in the disk VTOC, the search erroneously went beyond the scope of the VTOC. The disk partition address that was specified in the LDFT header for that partition does not match the disk partition address in the corresponding VTOC entry on the disk. The LDFT tape may be damaged. Regenerate a new LDFT tape and start the update over from the beginning of the Enter step.

`203xxy` Disk and tape VTOCs are different.

The VTOC entry on tape must be identical to the VTOC entry on disk. The VTOC on the LDFT tape may be damaged. Regenerate a new tape sequence.

`204xxy` A partition being updated does not have a backup partition.

All partitions must have backup partitions if they are being updated via the backup partition method (except for the VTOC and little boot partitions). If some partitions need to be updated but do not have backup partitions, start the update over from the beginning of the Enter step using the offline disk method.

`205xxy` Primary and backup versions of same partition found on same tape.

An LDFT tape can only contain the primary or the backup version of the same partition. Both cannot be found on the LDFT tape. The LDFT tape may be damaged. Regenerate a new tape.

`206xxy` Partition data spans across partition boundaries.

Each header on the LDFT tape contains the starting address for that partition on the disk and the partition's size. The address plus the size gives the starting address for the next partition. But, in this case, the address plus the size gives an address that is past the starting address for the next partition. The LDFT tape may be damaged. Regenerate a new tape.

`207xxy` Two VTOCs found in same tape sequence.

Only one VTOC is allowed per tape sequence. This may be a bad tape sequence. The entire tape sequence should be regenerated.

`208xxy` End-of-Tape and End-of-Sequence flags on LDFT tape are incompatible.

The End of Sequence flag is set in the last header on the last tape, but the End of Tape flag is not set. This may be a bad tape. Regenerate a new tape.

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`209xxy` Different hash sums.

Hash sum - a computed integer used to make sure that the data on the LDFT tape has not been damaged since the tape was created. The hash sum that is in one of the headers on the LDFT tape for that header or its data block does not match the hash sum that System Update computed for that header or data block.

Make sure that the "head" of the tape drive is clean and try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

`210xxy` Ichk() detected error(s) on file system.

At this time, this error will never occur because System Update does not call `ichk()`.

`211xxy` Cannot find VTOC partition entry in the VTOC VTOC on the LDFT tape.

This may be a bad VTOC on the tape. Regenerate a new tape.

`212xxy` Cannot find the RTC partition entry in the VTOC on the disk.

The VTOC on the disk may be bad. This update cannot be continued until this problem is resolved.

`213xxy` Cannot find ETC partition entry in the VTOC on the LDFT tape.

This may be a bad VTOC on the tape. Regenerate a new tape.

`214xxy` Cannot find ECD partition entry in the VTOC on the LDFT tape.

This may be a bad VTOC on the tape. Regenerate a new tape.

`215xxy` SG ID on LDFT tape does not match the SG ID on previous LDFT tape.

SG ID - identifier in the first header of an LDFT tape that describes the SG database from which this tape was written. It is used to make sure that multiple tapes and sequences were written using the same SG database. The SG ID on the LDFT tape does not match the SG ID on the previously loaded LDFT tape. This is not really an error, just a warning. This may occur if a field site uses its own SG database when generating tapes. Continue the update using the `UPD:GEN;CONTINUE` command and the error will be ignored.

`216xxy` Generic version number on LDFT tape does not match generic version number on previous LDFT tape.

Generic version number - used to make sure that multiple tapes and sequences were written using the same generic version.

Continue the update using the `UPD:GEN;CONTINUE` command and the error will be ignored.

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`217xxy` Little boot entry in offline disk VTOC could not be found when System Update attempted to restore the little boot start block address to its valid value.

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the VTOC on the offline disk may be damaged.

`218xxy` Little boot entry in the VTOC on the LDFT tape is different from the little boot entry in the VTOC on the disk when the backup partition method is being used.

During a backup partition method update, the old and new VTOCs must be identical. The LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the Enter step.

`219xxy` One of the VTOC entries for a partition being updated (excluding VTOC and little boot) in the VTOC on the LDFT tape is different from its corresponding VTOC entry on disk when the backup partition method is being used.

During a backup partition method update, the old and new VTOCs must be identical. The LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the Enter step.

`220xxy` One of the VTOC entries for a partition being updated (excluding VTOC and little boot) in the VTOC on the LDFT tape is different from its corresponding VTOC entry on disk when the offline disk method is being used.

This partition was also already updated in a previous tape sequence. During an offline disk method update, a VTOC may be different only as long as the partition corresponding to the VTOC entry that changed has not been updated in a previous tape sequence.

`221xxy` VTOC entry for little boot on LDFT tape is different from VTOC entry for little boot on disk when the offline disk method is being used.

The little boot partition was also already updated in a previous tape sequence. During an offline disk method update, a VTOC may be different only as long as the partition corresponding to the VTOC entry that changed has not been updated in a previous tape sequence.

`222xxy` Header for VTOC on LDFT tape contains starting address for VTOC on the disk and the VTOC's size.

The address plus the size gives the starting address for the next partition. But, in this case, the address plus the size gives an address that is past the starting address for the next partition. The LDFT tape may be damaged. Regenerate a new tape.

`223xxy` VTOC entry for primary source or backup destination partition not found in offline disk VTOC.

When updating the backup partitions using the offline disk method, the VTOC entry for a source (primary) or destination (backup) partition could not be found in the offline disk VTOC. The offline disk VTOC may be damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

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`224xxy` VTOC entry in VTOC on LDFT tape could not be found.

This may be a bad VTOC on the tape. Regenerate a new tape and start the update over from the beginning of the Enter step.

`225xxy` Little boot entry in VTOC read from LDFT tape could not be found when System Update attempted to invalidate the little boot start block address to prevent a boot from occurring from the disk that is being updated.

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the VTOC on the LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the Enter step.

`226xxy` VTOC entry could not be found in VTOC on the mounted LDFT tape.

The LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the Enter step.

`227xxy` Note: This error message is not available in all releases.

UNIX® RTR R6.2 only:
The pack number specified in the VTOC on the mounted LDFT tape does not match the destination VTOC number. Check that the proper destination VTOC was entered. If correct, verify the intended destination device for the tape. (Check that proper tape was mounted.)

UNIX® RTR R6.4 and later:
The pack ids in the tape and destination disk VTOCs do not match. Check that the proper tape is mounted, and that the destination VTOC was entered correctly. This check can be overridden by performing the update unconditionally with the UCL parameter.

4. Internal System Update Errors

`301xxy` Too many command line arguments used.

The maximum number of arguments allowed on the command line has been exceeded for one of the following commands: `Continue`, `Readlog`, `Stop`, `Commit`, `Restore`, `Backout`, `Enter`, or `Proceed`. The only way this error message could appear is if the System Update process has been executed from a UNIX® terminal instead of a user terminal. Re-execute the System Update process using the correct arguments, or execute the process from a user terminal using the corresponding PDS or MML Craft Input Message.

`302xxy` Message returned was not what was expected.

Any time System Update sends a message to SIM, the disk driver, applhook, or continue, it checks the return message that is sent back. In this case, a bad message was returned or the time limit set to receive the message from continue expired. Try to continue the update using the `UPD:GEN;CONTINUE` command.

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`303xxy` Internal buffers are too small.

The data after a header on the LDFT tape is larger than one segment. Up to only one segment is allowed after each header. The LDFT tape may be damaged. Regenerate a new tape.

`304xxy` Cannot locate System Update log.

Any time the System Update log is accessed, it is assumed to be in `/etc/log/suprlog`. In this case, it could not be found. System Update may have been attempting to retrieve or write a log entry or attempting to read the entire log file. The log file may have been accidentally removed. If the System Update Readlog command was executed to read the log file, the log file cannot be read since Readlog cannot locate it. If any other System Update process was executed, start the update over from the beginning of the Enter step.

`305xxy` No "enter" entries in log.

Log entries for the Enter step cannot be found in the System Update log. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the log file may be damaged. Start the update over from the beginning of the Enter step.

`306xxy` Log entries are inconsistent.

The System Update Continue command found that one of the entries in the System Update log file contains a bad value (the type of log entry, tape sequence number, or disk pair number). The System Update log may be damaged. Start the update over from the beginning of the Enter step.

`307xxy` Bad process type.

A bad process type was found in one of the log entries in the System Update log file. This error occurs when System Update tries to continue an update and the entry for the System Update process that is being continued cannot be found in the log. The log may be damaged. Start the entire update over from the beginning of the Enter step.

`308xxy` Bad update method.

The System Update Readlog command found an incorrect update method specified in one of the System Update log file entries (Begin or Disk) or the System Update Enter command found an incorrect update method specified on its command line. Only two methods are allowed: backup partition method or off-line disk method. If the Readlog command was executed, the log may be damaged and therefore cannot be read. If the Enter command was executed, start the update over from the beginning of the Enter step.

`309xxy` Bad execution mode.

The System Update Readlog command found a bad execution mode in a Begin log entry for one of the System Update processes. Only two execution modes are allowed: conditional or unconditional. The log file may be damaged and

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therefore cannot be read.

`310xxy` Bad bootfile.

The System Update Readlog command found an incorrect bootfile specified in the End entry in the System Update log file. Only two bootfile types are allowed: DMERT or APPDMERT. The log file may be damaged and therefore cannot be read.

`311xxy` Bad file system.

The System Update Readlog command found an incorrect file system specified in the End entry in the System Update log file. Only two file systems are allowed: PRIMARY or SECONDARY. The log file may be damaged and therefore cannot be read.

`312xxy` Bad log entry.

A bad disk pair number was found in either the Disk or End log entry in the System Update log. The log file may be damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`313xxy` Bad completion code.

The System Update Readlog command found that the End entry in the System Update log file contains a bad completion code. Only two completion codes are allowed: SUCCESS or FAILURE. The log may be damaged and therefore cannot be read.

`314xxy` Tried to reserve the same disk twice.

System Update tried to reserve a disk that has already been reserved. Try to continue the update using the `UPD:GEN;CONTINUE` command.

`315xxy` Tried to release an unreserved disk.

System Update tried to release a disk that was never previously reserved. Try to continue the update using the `UPD:GEN;CONTINUE` command.

`316xxy` Bad UCB disk state requested.

A bad state was specified when System Update attempted to change the state of a UCB (valid states = `OOS`, `ACT`) or a disk (valid states = `OOS`, `OFL`). Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists,

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either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the `applhook` process.
- If this error occurred during any other System Update process, start the update over from the beginning of the Enter step.

`317xxy` Bad sequence indicator.

The System Update Readlog command found that the Tape entry in the System Update log file contains a bad sequence number. Only three sequence entries are allowed: FIRST, SECOND, or THIRD. The log may be damaged and therefore cannot be read.

`318xxy` Bad continuable indicator.

The System Update Readlog command found that the End entry of the System Update log contains a bad continuable flag variable. Only two continuable flag variables are allowed: YES or NO. The log may be damaged and therefore cannot be read.

`319xxy` BEGIN ENTER log entry could not be found in the System Update log file.

The log may be damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`320xxy` System Update Enter command terminated.

The System Update Enter command terminated while it was updating the backup partitions using the offline disk method and then was continued using the `UPD:GEN;CONTINUE` command. In order for System Update to know which partition it was in the middle of updating before it terminated, it looks in the log file and attempts to find the last UPDATE ENTER log entry.

In this case, the UPDATE ENTER log entry could not be found. Therefore, System Update could not do any further processing. Try to continue the update again using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter command.

`321xxy` VTOC on FDFT tape exceeds maximum allowed.

The size of the VTOC on the LDFT tape is greater than the maximum size allowed: 512 bytes (for Generic 2) and 1024 bytes (for Release 1). The VTOC may be damaged on the LDFT tape. Regenerate a new tape.

322xxy Write log entry found in System Update log file without a proceeding Disk log entry.

The log file may be damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

323xxy Log file retrived not requested.

System Update requested a log entry (Disk, Tape, or End) from the log file, but the log entry that was retrieved was not the one requested. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

324xxy Corresponding disk log not found.

While searching the System Update log file, System Update could not find the Disk log entry that corresponds to the bootdisk being updated. Try to continue the update using the `UPD:GEN;CONTINUE` command.

325xxy Incorrect update method specified.

System Update found an incorrect update method specified in the internal variable `glob_method` which was obtained through the Enter command line or the System Update log file. Only two methods are allowed: backup partition method or off-line disk method. The log may be damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the entire update over from the beginning of the Enter step.

326xxy Bad execution mode found on Enter command line.

Only two execution modes are allowed: conditional or unconditional. Start the update over from the beginning of the Enter step.

327xxy Bad sequence option in log file.

System Update found bad sequence option in the log file. Valid sequence options are: SGL, DBL, or TPL. The log may be damaged and therefore cannot be read. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter command.

5. Errors Associated with Execution

401xxy Context of request is invalid.

The System Update Enter command was executed conditionally (without the UCL argument) while the System Update log file contained log entries (possibly from a previous update session). Either remove the log file (`/etc/log/suprlog`) or execute the Enter command using the UCL argument on the command line.

`402xxy` Bad input file (tape unit) specified.

The input file specified (normally a tape unit) on the Enter command line is invalid. Make sure that the name is entered correctly (the name of a tape unit is of the form `/dev/mt`*nn* where *nn* is a two digit hexadecimal number). If the input is from a tape, make sure that the unit is on-line. Re-execute the Enter command with the UCL argument on its command line.

`403xxy` Data not in sync.

The tape being read is either not a tape usable with System Update (not in LDFT format), the data on it has been mutilated, or the LDFT formatted tape being used was created for a different processor. Make sure that the correct tape has been mounted, and continue the update using the `UPD:GEN;CONTINUE` input command.

`404xxy` Data sequence id incorrect (wrong tape).

The data input does not belong on the disk being written. Make sure that correct tape has been mounted and continue the update using the `UPD:GEN;CONTINUE` input command.

`405xxy` Data sequence number out of order.

One of the tapes in the sequence has been mounted out of order. Mount the correct tape and continue the update using the `UPD:GEN;CONTINUE` input command.

`406xxy` Bad destination VTOC specified.

The filename specified for the disk being updated is not a block special device file or the disk cannot be opened. Check that the filename was entered correctly. If not, re-execute the Enter command using the UCL argument on the command line.

`407xxy` This error code is no longer used.

`408xxy` User did not return from "continue" request.

When a new tape needs to be mounted, a `mount tape and continue` message appears. After the user mounts the tape, the `UPD:GEN;CONTINUE` command needs to be executed in order for the update to continue its processing.

System Update waits 30 minutes for the Continue command to be executed. If it is not executed, another `mount tape and continue` message appears and System Update waits another 30 minutes for the Continue command to be executed. If it still is not executed, System Update terminates with this error code. Execute the `UPD:GEN;CONTINUE` command to continue the update process where System Update left off.

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`409xxy` Attempt to run two system update processes.

The user attempted to

- run two System Update processes at the same time (when one System Update process is running another one may not be started unless it is one of the following: Stop, Continue, or Readlog)
- run a System Update process while Field Update or PDT is currently running (a System Update cannot be performed while Field Update or PDT is running)

If a System Update process needs to be stopped, the System Update Stop command may be used to stop it. If this is not successful, seek technical assistance.

`410xxy` User stopped process (not a fault condition).

This `error` code is used to acknowledge that the user terminated one of the System Update processes (`Commit`, `Restore`, `Backout`, `Enter`, or `Proceed`) using the System Update `Stop` command. There is no fault condition associated with this code.

`411xxy` No process exists to talk to (e.g., nothing to stop).

The user has attempted to stop a System Update process using the System Update Stop command when there are no System Update processes that are running.

`412xxy` System update log is empty.

The System Update log file does not contain any log entries when it is expected to in one of the following situations:

- An attempt to continue a System Update process was made, but the command to be continued could not be figured out since this information is contained in the log file and the log file is either empty or does not contain the BEGIN ENTER log entry,
- The log file was attempted to be read via the System Update Readlog command, but there was nothing to read since the log file was empty,
- One of the System Update processes (excluding the Enter process) was executed when the log file was empty. These processes need information in the log in order to complete their processing, or
- The log file was attempted to be searched for information, but the log file is empty.

Start the update over from the beginning of the Enter command.

`413xxy` Off-line disk method started with one disk active.

The offline disk method is being used and a disk was selected by System Update to retain the old generic, but this disk is not in the Active state. All disk pairs must be duplexed (active) before the Enter command is executed. Restore

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all affected disks to service and execute the Enter command again using the UCL argument on its command line. If this error occurred because the System Update Enter process aborted leaving one or more disks in the offline state, execute the Restore command using the UCL argument on its command line and wait for it to complete. Then, start the update over from the beginning of the Enter step.

`414xxy` In off-line disk method with both disks active.

An offline disk was somehow restored to service when System Update expected it to be in the offline state. If all affected disks are offline, try to continue the update using the `UPD:GEN;CONTINUE` command. If an affected disk(s) is active or if the error persists after the continue, start the update over from the beginning of the Enter step.

`415xxy` Process did not log failure termination.

The user attempted to restart a System Update process with the Continue command but the last System Update process that was run logged a successful termination and therefore cannot be continued. Dumping the System Update log file using the Readlog command may be helpful in determining what happened to the last process. Try to execute the next System Update process.

`416xxy` Process is not continuable.

The user attempted to restart a System Update process using the Continue command, but the last System Update process that was run failed due to a problem which would usually cause it to fail again. For example, one of the pathnames in an Enter input message was bad, or one or more log entries needed for continuing the process are corrupted.

Dumping the log file using the Readlog command may be helpful in determining what happened to the original process. Try to re-enter the original input message using the UCL argument on the command line (for the Enter command, make sure the disks are duplexed first - see error code `413xxy`).

`417xxy` Disk is no longer off-line.

A specified disk device is not in any of the following valid states: offline, out of service, or active. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Enter process, restore the disk to an active state and re-execute the Enter command using the UCL argument on its command line.
- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.

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- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the `applhook` process.

`418xxy` Bad destination DFC specified.

An invalid DFC unit number was specified as an argument to the `OFLDISK` keyword on the Enter command line. Valid DFC unit numbers are 0 (zero) and 1 (one). The DFC number can be omitted, in which case the Enter process will chose DFC 1.

`419xxy` Command executed out of order.

A System Update command was executed out of order.

- The `Proceed` command was executed before the `Enter` command completed successfully.
- The `Commit` command was executed before the Proceed command completed successfully.
- The `Backout` command was executed before the Proceed command completed successfully.
- If error code `y` is `4`, the `Restore` command was executed before the `Proceed` command completed successfully. Execute the `Restore` command unconditionally using the UCL argument on its command line.
- If error code `y` is `5`, `Conditional Restore` after successful `Backout` or `Proceed` is no longer valid. Execute the `Restore` command unconditionally using the UCL argument on its command line.

`420xxy` Incorrect file system base is running.

The wrong file system base is currently running for the System Update command that was just executed.

- `Backout` and `Commit` commands - the file system currently running needs to be the new generic.
- `Proceed` and `Restore` commands - the file system currently running needs to be the old generic.

If the wrong command was executed, execute the right one. If the right command was executed, boot the system so that it is running on the correct file system, then execute the command again.

`421xxy` Disk not in active state.

The offline disk method is being used and a disk was selected by System Update to contain the new generic, but this disk is not in the Active state. All disk pairs must be duplexed (active) before the `Enter` command is executed. Restore all affected disks to service and execute the `Enter` command again.
If this error occurred because the System Update Enter process aborted leaving

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one or more disks in the offline state, execute the Restore command using the UCL argument on the command line and wait for it to complete. Then, start the update over from the beginning of the Enter step.

`422xxy` Disk being updated not in offline state.

When the backup partitions are being updated using the offline disk method, the disk being updated should be in the offline state, but it is not. Check the Common Processor Display page (page 102) or another page which shows the MHDs. If all disks affected are active, try to re-execute the Enter command using the UCL argument on the command line. If any affected disks are out of service, restore them and then re-execute the Enter command using the UCL argument on the command line.

`423xxy` Disk being updated is no longer in offline state.

The disk being updated, which should be in the offline state, is no longer in that state. Check the Common Processor Display page (page 102) or another page which shows the MHDs. If all disks affected are active, try to re-execute the Enter command using the UCL argument on the command line. If any affected disks are out of service, restore them and then re-execute the Enter command using the UCL argument on the command line.

6. Errors Associated with Application Processing

`501xxy` Time limit message error.

This error may have occurred because

- the application process did not send a message indicating a time limit that it needs to do its processing
- the message that the application process sent to set a time limit was damaged
- the UNIX® RTR `send()` process failed when the application process tried to use it to send a time limit message to the System Update Process

If the error occurred because the application process did not send a time limit message, start the application process over using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`502xxy` Application hook process failed or did not return.

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

7. Errors Associated with Interfaces with UNIX® RTR

`601xxy` User is not privileged for execution.

The System Update process must be executed from a login that has superuser permissions. After resolving the problem, try to continue the update using the

`UPD:GEN;CONTINUE` command.

`602xxy` Timeout for SIM message.

When System Update sends SIM a message, it sets a time out limit by which it must receive the return message from SIM. This error occurred when System Update was waiting for the return message from SIM. This error may have occurred because

- System Update did not receive a return message from SIM within the time out limit
- the `recvw()` process that waits for the return message from SIM failed

Try to continue the update using the `UPD:GEN;CONTINUE` command.

`603xxy` Time out for MIRA message.

When System Update sends MIRA a message, it sets a time out limit by which it must receive the return message from MIRA. This error occurred when System Update was waiting for the return message from MIRA. This error may have occurred because

- System Update did not receive a return message from MIRA within the time out limit
- the `recvw()` process that waits for the return message from MIRA failed

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the `Enter` step, or take one of the following actions:

- If this error occurred during the `Restore` process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.
- If this error occurred during the `Commit` process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the `applhook` process.
- If this error occurred during any other System Update process, start the update over from the beginning of the `Enter` step.

`604xxy` Timeout for disk driver message.

When System Update sends the disk driver a message, it sets a time out limit by which it must receive the return message from the disk driver. This error occurred when System Update was waiting for the return message from the disk driver. This error may have occurred because

- System Update did not receive a return message from the disk driver within the time out limit
- the `recvw()` process that waits for the return message from the disk driver

failed

Try to continue the update using the `UPD:GEN;CONTINUE` command.

`605xxy1` Bad MIRA return on message.

When System Update receives a return message from MIRA, it checks certain fields in the message for bad values. This error occurs when System Update finds a bad value in one of the fields in the return message. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the `applhook` process.
- If this error occurred during any other System Update process, start the update over from the beginning of the `Enter` step.

`606xxy` Bad disk driver return on message.

When System Update receives a return message from the disk driver, it checks the return code that is in the message. The value of the return code must be zero. This error occurred because the return code was a value other than zero. Try to continue the update using the `UPD:GEN;CONTINUE` command.

`607xxy` Wrong disk state result.

After MIRA changes the state of the disk (to Active or Out of Service), System Update checks the UCB of that disk in the ECD to make sure that the change actually took place. This error occurred when System Update thought it changed the state of the disk, but the UCB of that disk does not reflect the change. Either MIRA did not change the state correctly or the state field in the UCB is damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the `applhook` process.

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- If this error occurred during any other System Update process, start the update over from the beginning of the `Enter` step.

`608xxy` No active boot disks.

System Update checks the UCB in the ECD to find out which disk is the current system disk that is in the active state. This error occurred because there were not any disks that were in the active state. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, restore both disks to the active state and start the update over from the beginning of the `Enter` step.

`609xxy` Partition copy error.

The command `COPY:PTN:ALL` failed when the System Update Restore or `Commit` command used it to copy the new or old generic over the old or new generic during a backup partition method update. The error(s) associated with the command `COPY:PTN:ALL` will be saved in `/tmp/supr.prtcp`. The most common cause for this error is when the disks are not duplexed (e.g., both disks are not active) when the `Restore` or `Commit` commands are executed. After resolving the problem, (e.g., duplex both disks), continue the update using the `UPD:GEN;CONTINUE` command.

`610xxy` Recent change error.

This error occurred when System Update was performing a Recent Change on the ECD. The journal file and the error messages will be saved in `/tmp/supr.rcv` and `/tmp/supr.rcvout` respectively. After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

`611xxy` Copy command failed.

This error may have occurred when System Update was copying the log from the old generic to the new generic. Additional error codes can be found in `/tmp/supr.cp`. After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

`612xxy` `ECDMAN ugucbn() error`.

This error occurred when System Update used the ECD function `ugucbn()` to get information about the UCB record associated with a specified disk. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the `Restore` process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.
- If this error occurred during the `Commit` process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the `applhook` process.

- If this error occurred during any other System Update process, start the update over from the beginning of the `Enter` step.

`613xxy ECDMAN ugetucb() error.`

This error occurred when System Update used the ECD function `ugetucb()` to get the UCB record for a specified disk. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the `Enter` step, or take one of the following actions:

- If this error occurred during the `Restore` process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.
- If this error occurred during the `Commit` process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the `applhook` process.
- If this error occurred during any other System Update process, start the update over from the beginning of the `Enter` step.

`614xxy ECDMAN ugmamirids() error.`

This error occurred when System Update used the ECD function `ugetrec()` to get the pointer to the UCBs for the two disks that are associated with the update. Try to continue the update using the `UPD:GEN;CONTINUE` command.

`615xxy ECDMAN ursvucd() error.`

This error occurred when System Update used the ECD function `ursvucb()` to reserve a UCB. The disk that System Update is trying to update must first be reserved so that no other processes can write to it. This is done by reserving the disk's UCB. The `ursvucb()` function may have failed because another process has already reserved the disk that is trying to be reserved. Check to see if the disk is already reserved. If it has been reserved, execute the following command on a UNIX® terminal to unreserve the disk: `/etc/udgnnm MHD` *x* where *x* is the disk number that needs to be unreserved. Then, try to continue the update using the `UPD:GEN;CONTINUE` command.

`616xxy ECDMAN ugsdf() error.`

This error occurred when System Update used the ECD function `ugsdf()` to get the special device file name associated with the disk to be updated so that System Update can access that disk. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`617xxy ECDMAN urelucb() error.`

This error occurred when System Update used the ECD function `urelucb()` to release (unreserve) a reserved UCB. Try to continue the update using the

`UPD:GEN;CONTINUE` command.

`618xxy` `ECDMAN ursdf() error.`

This error occurred when System Update used the ECD function `ursdf()` to give back to the system the special device file name of the updated disk that was obtained by the `ugsdf()` command (see error `616xxy`). Try to continue the update using the `UPD:GEN;CONTINUE` command.

`619xxy` `ECDMAN usettnum() error.`

System Update no longer uses the ECD `usettnum()` function, so this error should never appear.

`620xxy` `ECDMAN usetucb() error.`

System Update no longer uses the ECD `usetucb()` function, so this error should never appear.

`621xxy` `Unable to stop process with pkill.`

The System Update `Stop` command could not stop the currently running System Update process using the `pkill()` function call. If the `Stop` command cannot kill a System Update in progress using the `kill()` function call, it then tries to kill it using the `pkill()` function call. The `pkill` function call may have failed because there was a bad Process ID number (PID) in the System Update log file for the process that needed to be terminated.

The `Stop` command looks in the log file to find the PID of the process that is currently running and calls `pkill` with that PID. If the PID is damaged in the log file, the `pkill` command may be executed manually using the correct PID of the process that needs to be terminated.

`622xxy` `Unable to stop process with kill.`

The System Update `Stop` command could not stop the currently running System Update process using the `kill()` function call. The `kill()` function call is used in the Stop command to terminate the System Update process that is currently running. The `kill` function call may have failed because

- the process to be killed does not exist
- the sending process is not a superuser, and the sending and receiving processes do not have the same effective user ID
- the Process ID (PID) of the process being terminated is damaged in the System Update log. The `Stop` command passes this PID as a parameter to `kill()`

If the System Update still needs to be stopped, execute the System Update `Stop` process unconditionally using the UCL argument on its command line. **CAUTION:** if `Stop` is executed unconditionally, the System Update process will be terminated by a more extreme method than a kill (`pkill`). Some system resources in use by the process may not be automatically released.

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`623xxy  System error killed the process.`

A System Update process was terminated due to a phase 1 signal. System Update may not get a chance to print this error message when the interrupt occurs. If the System Update process is continued using the `UPD:GEN;CONTINUE` command, the `Continue` command will put this error code in the End entry of the System Update log file.

ID . . . . . APP-SUPR-B
GENERIC . . . . . UNIX RTR R21.27 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

System Update Error Codes Appendix

1. Introduction

This appendix contains the error codes for System Update in Release 1. The error codes consist of six decimal digits. The first three digits indicate the nature of the error. The next two digits (xx) indicate the module in which the error occurred (that information is not provided here). The last digit (the error number, y) is used to differentiate errors of the same error code that can occur multiple times in the same module. To locate exactly which error in the module failed, each error is given its own unique error number.

2. Errors Associated with UNIX® System Calls

More information about these UNIX® System Calls can be found in *Output Message Manuals* under System Error Codes Appendix, `SYSERR-APP`. The error code that corresponds with the System Call that failed is kept in the System Update log file. It can be read by executing `OP:GEN;READLOG`. The log entry specifying the UNIX® error number will be the error code for the UNIX® call that failed. The manual pages for these System Calls may be found in the *UNIX® RTR Operating System Manuals.*

`101xxy` `mkseg() error.`

The UNIX® system call `mkseg()` failed when the System Update Enter command tried to create a segment using `makeseg()` that was to be used as a buffer when reading in a new partition from the LDFT tape and writing it to disk. `Makeseg()` may have failed because there was not enough space in memory for the segment. After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

`102xxy` `open() error`.

The UNIX® system call `open()` failed when System Update attempted to open the System Update log file. The open may have failed because

- the System Update log file does not exist (`/etc/log/suprlog`)
- one of the directories in the System Update log file pathname (`/etc/log`) does not exist or does not have read permissions
- the System Update log file is not readable or writable depending on what it is being opened for (reading or writing)
- too many files are open

After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

`103xxy read() error.`

The UNIX® system call `read()` failed when System Update tried to read an entry from the System Update log file. The read may have failed because of

- a damaged log file
- physical I/O errors
- a bad `read()` parameter
  - — bad buffer address where the data is to be read
  - — number of bytes to be read is bad
  - — file descriptor indicating the file to be read from is not that of an input file

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`104xxy seek() error.`

The UNIX® system call `lseek()` failed when System Update attempted to seek to a particular log entry in the System Update log file. The lseek may have failed because the file descriptor for the log file is undefined, the seek went to a position before the beginning of the log file, or the log file is damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`105xxy write() error.`

The UNIX® system call `write()` failed when System Update attempted to write a log entry to the System Update log file. The write may have failed because of

- physical I/O errors
- a bad `write()` parameter
  - — bad buffer address from where the data is to be read
  - — number of bytes to be written is bad
  - — bad file descriptor for the System Update log file to which the data is to be written

Try to continue the update using the `UPD:GEN;CONTINUE` command.

`106xxy close() error.`

The UNIX® system call `close()` failed when System Update attempted to close the System Update log file. An incorrect file descriptor for the log file may have been passed to the `close()` command. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

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`107xxy unlink() error.`

The UNIX® system call `unlink()` failed when the System Update Proceed command attempted to unlink (remove) the special device file that was used to copy the System Update log file to the offline disk (offline disk method) or to the backup `/etc` partition (backup partition method). The unlink may have failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the enter step.

`108xxy setio() error.`

The UNIX® system call `setio()` failed when System Update attempted to set the input/output mode for the disk being updated to physical I/O. The setio may have failed because the disk being updated was never opened. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the enter step.

`109xxy mknod() error.`

The UNIX® system call `mknod()` failed when the System Update Restore or Commit command attempted to make a node that would be used to copy the new/old partitions over the old/new partitions using the backup partition method. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then manually execute the applhook process.

`110xxy lcall() error.`

The UNIX® system call `lcall()` failed when System Update attempted to execute applhook (`/prc/supr/applhook`). Applhook may not exist or may not have execution permissions. After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

`111xxy msgenab() error.`

The UNIX® system call `msgenab()` failed when System Update attempted to enable message reception from one of the following processes: Applhook, Continue, the disk driver, MIRA, or SIM. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

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- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing he old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the applhook process.
- If this error occurred during any other System Update process, start the update over from the beginning of the Enter step.

`112xxy send() error.`

The UNIX® system call `sendw()` failed when the System Update Continue command either attempted to send an acknowledgement message to the System Update Enter process which is currently running or attempted to send a message to SIM in order to request system initialization information. Try to continue the update again using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`113xxy kill() error.`

The UNIX® system call `kill()` failed when the System Update Stop command attempted to terminate the System Update process that is currently running. The kill command may have failed because

- the process to be killed does not exist
- the sending process is not a superuser, and the sending and receiving processes do not have the same effective user ID
- the Process ID (PID) of the process being terminated is damaged in the System Update log; The Stop command passes this PID as a parameter to `kill()`

If the System Update still needs to be stopped, execute the Stop process unconditionally (using the UCL argument on its command line).

CAUTION: If Stop is executed unconditionally, it will attempt to terminated the running System Update process by an extreme method using the `pkill()` command. Some system resources in use by the process may not be released automatically.

`114xxy stat() error.`

The UNIX® system call `stat()` failed when System Update attempted to obtain status information about the disk that is to be updated. This function may have failed because the disk does not exist. If this error occurred during the Enter step of System Update, make sure that all destination file names specified on the Enter command line exist. After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

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115xxy `msgport() error.`

The UNIX® system call `msgport()` failed when System Update attempted to send a message to the disk driver so that System Update could have access to an out of service disk at the partition level rather than at the disk level. The msgport may have failed because

- the disk driver is nonexistent
- the port number specified is invalid
- no process is connected to the specified port
- the message buffer is not in the user address space

Try to continue the update using the `UPD:GEN;CONTINUE` command.

116xxy `mount() error.`

The UNIX® system call `mount()` failed when System Update attempted to mount the `/etc` file system so that the System Update log file can be copied to the new generic or the database file system so that the ECD can by updated. The mount may have failed because

- the effective user ID of the process executing the mount is not a superuser
- the specified file system does not exist
- the file system to be mounted is not specified
- the block special file from which the file system is to be mounted is inaccessible or not an appropriate file
- the file system is already mounted
- the directory pathname that the file system is to be mounted on is not a directory
- too many file systems are mounted

Try to continue the update by using the `UPD:GEN;CONTINUE` command.

117xxy `unmount() error.`

The UNIX® system call `umount()` failed when System Update attempted to unmount the `/etc/` file system after the System Update log file has been copied to the new generic or the database file system after the ECD has been updated. The umount may have failed because

- the effective user ID of the process executing the umount is not a superuser
- the file system is not mounted
- there are active files on the file system being unmounted

Try to continue the update using the `UPD:GEN;CONTINUE` command.

118xxy `link() error.`

RC/V recognizes the ECD by the name `/mount directory/ecd` where mount directory represents the directory path on which the ecd file system is mounted. But, System Update recognizes the ECD by the name `/mount`

`directory/dmert` or `/mount directory/appdmert`. In order for System Update to use RC/V, it must link its database name with the name that RC/V recognizes. This error occurs when the link fails using the UNIX® system call `link()`. The link may have failed because

- the original name that is being linked to cannot be found
- the new name that is being linked already exists
- the directory that contains the new name does not have write permissions
- the link is done by a user other than a superuser
- the link was attempted on a file that is on another file system
- the file has too many links

If this update is continued using the `UPD:GEN;CONTINUE` command, it will keep failing until this problem is resolved. Start the update over from the beginning of the Enter step.

`119xxy create() error.`

The UNIX® system call `create()` failed when a file was being created under the `/tmp` directory in one of the following situations: the System Update Enter command attempted to create the System Update log file, or the System Update Readlog command attempted to create a buffer used to store log entries that are about to be printed to the terminal and to the ROP. The create may have failed because

- a directory in the pathname of the file to be created is not searchable
- the file to be created does not exist and the directory in which it is to be created does not have write permission
- the file to be created does exist an does not have write permissions
- the file to be created is a directory
- the maximum number of files (20) are already open
- there is not enough space in the `/tmp` file system for the created file

After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

`120xxy vcall() error.`

The UNIX® system call `vcall()` failed when the System Update Continue command executed the System Update process that is being continued. This function normally fails when the process being executed does not exist or does not have execution permissions. Make sure that all System Update processes in `/prc/supr` have execution permissions. After resolving the problem, re-enter the System Update command `UPD:GEN;CONTINUE`.

`121xxy rmovseg() error.`

The UNIX® system call `rmovseg()` failed when the System Update Enter

command attempted to remove a previously created segment after it was no longer needed. The segment may have been created in the first place to be used as: 1) a buffer used to hold the new generic which was read in from tape and then written to disk, or 2) a buffer used to hold the new generic which was read from the primary partitions and written to the backup partitions using the offline disk method. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`122xxy mkseg() error.`

The UNIX® system call `mkseg()` failed when the System Update Enter command tried to create a segment using `makeseg()` that was to be used as a buffer when reading in an updated segment from the offline disk and writing it to its backup partition. `makeseg()` may have failed because there was not enough space in memory for the segment. After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

`123xxy fopen() error.`

The UNIX® system call `fopen()` failed when the System Update Restore or Commit command attempted to open a partition that is to be used to update the old or new generic to the new or old generic. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the applhook process.

`124xxy open() error.`

The UNIX® system call `open()` failed when System Update attempted to open the ECD. The open may have failed because

- the ECD special device file does not exist (`/dev/ecd`)
- the root directory which contains the ECD does not have read permissions
- the ECD is not readable or writable depending on what it is being opened for (reading or writing)
- too many files are open

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

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- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the applhook process.
- If this error occurred during any other System Update process, start the update over from the beginning of the Enter step.

`125xxy open() error.`

The UNIX® system call `open()` failed when System Update attempted to open the disk that is being updated for one of the following reasons:

- the VTOC needs to be read
- the backup partitions need to be updated during the Enter process using the offline disk method
- the little boot start block address in the VTOC needs to be restored

The `open()` may have failed because

- the disk does not exist
- one of the directories in the disk pathname does not exist or does not have read permissions
- the disk is not readable or writable depending on what it is being opened for (reading or writing)
- too many files are open

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`126xxy open() error.`

The UNIX® system call `open()` failed when System Update attempted to open one of the partitions that is being updated. The open may have failed because

- the partition does not exist

- one of the directories in the partition pathname does not exist or does not have read permissions
- the partition is not readable or writable depending on what it is being opened for (reading or writing)
- too many files are open

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`127xxy` `read() error.`

The UNIX® system call `read()` failed when System Update tried to read the VTOC from the LDFT tape. The read may have failed because of

- physical I/O errors
- a bad read() parameter
  - — bad buffer address where the data is to be read
  - — number of bytes to be read is bad
  - — file descriptor indicating the file to be read from is not that of an input file

Make sure the "head" of the tape drive is clean and continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

`128xxy` `read() error.`

The UNIX® system call `read()` failed when System Update tried to read the VTOC from disk. The read may have failed because of

- physical I/O errors
- a bad read() parameter
  - — bad buffer address where the data is to be read
  - — number of bytes to be read is bad
  - — file descriptor indicating the file to be read from is not that of an input file

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`129xxy` `read() error.`

The UNIX® system call `read()` failed when System Update tried to read a data block from an LDFT tape. The read may have failed because of

- physical I/O errors
- a bad `read()` parameter
  - — bad buffer address where the data is to be read

— number of bytes to be read is bad

— file descriptor indicating the file to be read from is not that of an input file

Make sure the "head" of the tape drive is clean and continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

`130xxy read() error.`

The UNIX® system call `read()` failed when System Update tried to read a partition from the offline disk for one of two reasons: the hash sum needed to be computed to make sure that the partition was written correctly, or the backup partition needed to be updated from its primary partition which contained the new generic (for offline disk method only). The read may have failed because of

- physical I/O errors
- a bad `read()` parameter
  - — bad buffer address where the data is to be read
  - — number of bytes to be read is bad
  - — file descriptor indicating the file to be read from is not that of an input file

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`131xxy read() error.`

The UNIX® system call `read()` failed when System Update tried to read a header from an LDFT tape. The read may have failed because of

- physical I/O errors
- a bad `read()` parameter
  - — bad buffer address where the data is to be read
  - — number of bytes to be read is bad
  - — file descriptor indicating the file to be read from is not that of an input file

Make sure the "head" of the tape drive is clean and continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

`132xxy lseek() error.`

The UNIX® system call `lseek()` failed when System Update attempted to seek to a particular partition on disk. The lseek may have failed because the file descriptor for the disk is undefined, or the seek went to a position before the beginning of the disk. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the disk may be damaged.

`133xxy lseek() error.`

The UNIX® system call `lseek()` failed when System Update attempted to seek to a previous block on an LDFT tape. A tape read failure may have occurred. If this happens, System Update automatically seeks back to the beginning of the set of blocks it tried to read and tries to read those blocks again. Since a read error may have occurred first, check the possible causes for a read error located at error codes `103xxy`, and `127xxy - 131xxy` and take the action listed there. If a read error is not the problem, make sure the "head" of the tape drive is clean and continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

`134xxy write() error.`

The UNIX® system call `write()` failed when the System Update Readlog command attempted to write log entries to an output buffer which is later spooled to the terminal and to the ROP. The write may have failed because of

- physical I/O errors
- a bad `write()` parameter
  - — bad buffer address where the data is to be read from
  - — number of bytes to be written is bad
  - — bad file descriptor for the buffer to which the data is to be written

The log file cannot be read.

`135xxy write() error.`

The UNIX® system call `write()` failed when the System Update Enter command attempted to write the VTOC to the disk being updated. The write may have failed because of

- physical I/O errors
- a bad `write()` parameter
  - — bad buffer address from where the data is to be read
  - — number of bytes to be written is bad
  - — bad file descriptor for the disk to which the data is to be written

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the

error persists, the disk may be damaged.

`136xxy write() error.`

The UNIX® system call `write()` failed when the System Update Enter command attempted to write a partition to the disk being updated. The write may have failed because of

- physical I/O errors
- a bad write() parameter
  - — bad buffer address where the data is to be read from
  - — number of bytes to be written is bad
  - — bad file descriptor for the disk to which the data is to be written

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the disk may be damaged.

`137xxy fclose() error.`

The UNIX® system call `fclose()` failed when the System Update Restore or Commit command attempted to close a partition that was used to update the old or new generic to the new or old generic. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the applhook process.

`138xxy close() error.`

The UNIX® system call `close()` failed when System Update attempted to close the disk being updated. An incorrect file descriptor for the disk may have been passed to the `close()` command. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the Enter step.

`139xxy close() error.`

The UNIX® system call `close()` failed when System Update attempted to close the ECD. An incorrect file descriptor for the ECD may have been passed to the `close()` command. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the applhook process.
- If this error occurred during any other System Update process, start the update over from the beginning of the Enter step.

`140xxy close() error.`

The UNIX® system call `close()` failed when System Update attempted to close a partition on the disk being updated. An incorrect file descriptor for the disk partition may have been passed to the `close()` command. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`141xxy close() error.`

The UNIX® system call `close()` failed when System Update attempted to close the tape device from which the new generic was read. An incorrect file descriptor for the tape device may have been passed to the `close()` command. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`142xxy unlink() error.`

The UNIX® system call `unlink()` failed when System Update attempted to unlink (remove) the special device file that was used to access the offline disk when updating the backup partitions using the offline disk method. The unlink may have failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`143xxy unlink() error.`

The UNIX® system call `unlink()` failed when System Update attempted to unlink (remove) the special device file that was used to access a partition being updated. The unlink may have failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

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`144xxy unlink() error.`

The UNIX® system call `unlink()` failed when System Update attempted to unlink (remove) a special device file that was used to perform a Recent Change function on the ECD. The unlink may have failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`145xxy setio() error.`

The UNIX® system call `setio()` failed when System Update attempted to set the Input/Output mode for the tape device from which the new generic is to be read to physical I/O. The setio may have failed because the tape device was never opened. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`146xxy setio() error.`

The UNIX® system call `setio()` failed when System Update attempted to set the Input/Output mode for a partition to be updated to physical I/O. The setio may have failed because the partition was never opened. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`147xxy mknod() error.`

The UNIX® system call `mknod()` failed when the System Update Proceed command attempted to make a node that would be used to copy the System Update log file to the offline disk (offline disk method) or to the backup `/etc` partition (backup partition method). Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update from the beginning of the Enter step.

`148xxy mknod() error.`

The UNIX® system call `mknod()` failed when System Update attempted to make a node that would be used to update the backup partitions using the offline disk method. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update from the beginning of the Enter step.

`149xxy mknod() error.`

The UNIX® system call `mknod()` failed when System Update attempted to make a node that would be used to copy the new generic to the offline disk (offline disk method) or to the backup partitions (backup partition method). Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update from the beginning of the Enter step.

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`150xxy mknod() error.`

The UNIX® system call `mknod()` failed when System Update attempted to make a node that would be used to perform a Recent Change function on the ECD. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update from the beginning of the Enter step.

`151xxy fopen() error.`

The UNIX® system call `fopen()` failed when System Update attempted to open a file (located in `/tmp`) that is to be used to create a Recent Change script which is used to change the ECD. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`152xxy fclose() error.`

The UNIX® system call `fclose()` failed when System Update attempted to close the file (located in `/tmp`) that contains a Recent Change script used to change the ECD. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`153xxy sendpw error.`

The UNIX® system call `sendpw()` failed when System Update attempted to send a message to MIRA in order to remove or restore a UCB. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the applhook process.
- If this error occurred during any other System Update process, start the update over from the beginning of the Enter step.

3. Errors Associated with the Input Data

`201xxy` VTOC is not the first piece of data on the mounted LDFT tape.

This error occurred when System Update could not find the VTOC because

- System Update incorrectly thinks it should have the first tape of the sequence and therefore searches for the VTOC

- the wrong tape may have been mounted; check to make sure that the mounted LDFT tape is the first tape in the sequence

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the problem persists, the LDFT tape may be damaged. Regenerate a new tape.

`202xxy` HEADER and VTOC addresses are different.

While a partition entry was being searched for in the disk VTOC, the search erroneously went beyond the scope of the VTOC. The disk partition address that was specified in the LDFT header for that partition does not match the disk partition address in the corresponding VTOC entry on the disk. The LDFT tape may be damaged. Regenerate a new LDFT tape and start the update over from the beginning of the Enter step.

`203xxy` Disk and tape VTOCs are different.

The VTOC entry on tape must be identical to the VTOC entry on disk. The VTOC on the LDFT tape may be damaged. Regenerate a new tape sequence.

`204xxy` A partition being updated does not have a backup partition.

All partitions must have backup partitions if they are being updated via the backup partition method (except for the VTOC and little boot partitions). If some partitions need to be updated but do not have backup partitions, start the update over from the beginning of the Enter step using the offline disk method.

`205xxy` Primary and backup versions of same partition found on same tape.

An LDFT tape can only contain the primary or the backup version of the same partition. Both cannot be found on the LDFT tape. The LDFT tape may be damaged. Regenerate a new tape.

`206xxy` Partition data spans across partition boundaries.

Each header on the LDFT tape contains the starting address for that partition on the disk and the partition's size. The address plus the size gives the starting address for the next partition. But, in this case, the address plus the size gives an address that is past the starting address for the next partition. The LDFT tape may be damaged. Regenerate a new tape.

`207xxy` Two VTOCs found in same tape sequence.

Only one VTOC is allowed per tape sequence. This may be a bad tape sequence. The entire tape sequence should be regenerated.

`208xxy` End-of-Tape and End-of-Sequence flags on LDFT tape are incompatible.

The End of Sequence flag is set in the last header on the last tape, but the End of Tape flag is not set. This may be a bad tape. Regenerate a new tape.

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`209xxy` Different hash sums.

Hash sum - a computed integer used to make sure that the data on the LDFT tape has not been damaged since the tape was created. The hash sum that is in one of the headers on the LDFT tape for that header or its data block does not match the hash sum that System Update computed for that header or data block.

Make sure that the "head" of the tape drive is clean and try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

`210xxy` Ichk() detected error(s) on file system.

At this time, this error will never occur because System Update does not call `ichk()`.

`211xxy` Cannot find VTOC partition entry in the VTOC VTOC on the LDFT tape.

This may be a bad VTOC on the tape. Regenerate a new tape.

`212xxy` Cannot find the RTC partition entry in the VTOC on the disk.

The VTOC on the disk may be bad. This update cannot be continued until this problem is resolved.

`213xxy` Cannot find ETC partition entry in the VTOC on the LDFT tape.

This may be a bad VTOC on the tape. Regenerate a new tape.

`214xxy` Cannot find ECD partition entry in the VTOC on the LDFT tape.

This may be a bad VTOC on the tape. Regenerate a new tape.

`215xxy` SG ID on LDFT tape does not match the SG ID on previous LDFT tape.

SG ID - identifier in the first header of an LDFT tape that describes the SG database from which this tape was written. It is used to make sure that multiple tapes and sequences were written using the same SG database. The SG ID on the LDFT tape does not match the SG ID on the previously loaded LDFT tape. This is not really an error, just a warning. This may occur if a field site uses its own SG database when generating tapes. Continue the update using the `UPD:GEN;CONTINUE` command and the error will be ignored.

`216xxy` Generic version number on LDFT tape does not match generic version number on previous LDFT tape.

Generic version number - used to make sure that multiple tapes and sequences were written using the same generic version.

Continue the update using the `UPD:GEN;CONTINUE` command and the error will be ignored.

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`217xxy` Little boot entry in offline disk VTOC could not be found when System Update attempted to restore the little boot start block address to its valid value.

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the VTOC on the offline disk may be damaged.

`218xxy` Little boot entry in the VTOC on the LDFT tape is different from the little boot entry in the VTOC on the disk when the backup partition method is being used.

During a backup partition method update, the old and new VTOCs must be identical. The LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the Enter step.

`219xxy` One of the VTOC entries for a partition being updated (excluding VTOC and little boot) in the VTOC on the LDFT tape is different from its corresponding VTOC entry on disk when the backup partition method is being used.

During a backup partition method update, the old and new VTOCs must be identical. The LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the Enter step.

`220xxy` One of the VTOC entries for a partition being updated (excluding VTOC and little boot) in the VTOC on the LDFT tape is different from its corresponding VTOC entry on disk when the offline disk method is being used.

This partition was also already updated in a previous tape sequence. During an offline disk method update, a VTOC may be different only as long as the partition corresponding to the VTOC entry that changed has not been updated in a previous tape sequence.

`221xxy` VTOC entry for little boot on LDFT tape is different from VTOC entry for little boot on disk when the offline disk method is being used.

The little boot partition was also already updated in a previous tape sequence. During an offline disk method update, a VTOC may be different only as long as the partition corresponding to the VTOC entry that changed has not been updated in a previous tape sequence.

`222xxy` Header for VTOC on LDFT tape contains starting address for VTOC on the disk and the VTOC's size.

The address plus the size gives the starting address for the next partition. But, in this case, the address plus the size gives an address that is past the starting address for the next partition. The LDFT tape may be damaged. Regenerate a new tape.

`223xxy` VTOC entry for primary source or backup destination partition not found in offline disk VTOC.

When updating the backup partitions using the offline disk method, the VTOC entry for a source (primary) or destination (backup) partition could not be found in the offline disk VTOC. The offline disk VTOC may be damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

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`224xxy` VTOC entry in VTOC on LDFT tape could not be found.

This may be a bad VTOC on the tape. Regenerate a new tape and start the update over from the beginning of the Enter step.

`225xxy` Little boot entry in VTOC read from LDFT tape could not be found when System Update attempted to invalidate the little boot start block address to prevent a boot from occurring from the disk that is being updated.

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the VTOC on the LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the Enter step.

`226xxy` VTOC entry could not be found in VTOC on the mounted LDFT tape.

The LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the Enter step.

`227xxy` Note: This error message is not available in all releases.

UNIX® RTR R6.2 only:
The pack number specified in the VTOC on the mounted LDFT tape does not match the destination VTOC number. Check that the proper destination VTOC was entered. If correct, verify the intended destination device for the tape. (Check that proper tape was mounted.)

UNIX® RTR R6.4 and later:
The pack ids in the tape and destination disk VTOCs do not match. Check that the proper tape is mounted, and that the destination VTOC was entered correctly. This check can be overridden by performing the update unconditionally with the UCL parameter.

4. Internal System Update Errors

`301xxy` Too many command line arguments used.

The maximum number of arguments allowed on the command line has been exceeded for one of the following commands: `Continue`, `Readlog`, `Stop`, `Commit`, `Restore`, `Backout`, `Enter`, or `Proceed`. The only way this error message could appear is if the System Update process has been executed from a UNIX® terminal instead of a user terminal. Re-execute the System Update process using the correct arguments, or execute the process from a user terminal using the corresponding PDS or MML Craft Input Message.

`302xxy` Message returned was not what was expected.

Any time System Update sends a message to SIM, the disk driver, applhook, or continue, it checks the return message that is sent back. In this case, a bad message was returned or the time limit set to receive the message from continue expired. Try to continue the update using the `UPD:GEN;CONTINUE` command.

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`303xxy` Internal buffers are too small.

The data after a header on the LDFT tape is larger than one segment. Up to only one segment is allowed after each header. The LDFT tape may be damaged. Regenerate a new tape.

`304xxy` Cannot locate System Update log.

Any time the System Update log is accessed, it is assumed to be in `/etc/log/suprlog`. In this case, it could not be found. System Update may have been attempting to retrieve or write a log entry or attempting to read the entire log file. The log file may have been accidentally removed. If the System Update Readlog command was executed to read the log file, the log file cannot be read since Readlog cannot locate it. If any other System Update process was executed, start the update over from the beginning of the Enter step.

`305xxy` No "enter" entries in log.

Log entries for the Enter step cannot be found in the System Update log. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the log file may be damaged. Start the update over from the beginning of the Enter step.

`306xxy` Log entries are inconsistent.

The System Update Continue command found that one of the entries in the System Update log file contains a bad value (the type of log entry, tape sequence number, or disk pair number). The System Update log may be damaged. Start the update over from the beginning of the Enter step.

`307xxy` Bad process type.

A bad process type was found in one of the log entries in the System Update log file. This error occurs when System Update tries to continue an update and the entry for the System Update process that is being continued cannot be found in the log. The log may be damaged. Start the entire update over from the beginning of the Enter step.

`308xxy` Bad update method.

The System Update Readlog command found an incorrect update method specified in one of the System Update log file entries (Begin or Disk) or the System Update Enter command found an incorrect update method specified on its command line. Only two methods are allowed: backup partition method or off-line disk method. If the Readlog command was executed, the log may be damaged and therefore cannot be read. If the Enter command was executed, start the update over from the beginning of the Enter step.

`309xxy` Bad execution mode.

The System Update Readlog command found a bad execution mode in a Begin log entry for one of the System Update processes. Only two execution modes are allowed: conditional or unconditional. The log file may be damaged and

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therefore cannot be read.

`310xxy` Bad bootfile.

The System Update Readlog command found an incorrect bootfile specified in the End entry in the System Update log file. Only two bootfile types are allowed: DMERT or APPDMERT. The log file may be damaged and therefore cannot be read.

`311xxy` Bad file system.

The System Update Readlog command found an incorrect file system specified in the End entry in the System Update log file. Only two file systems are allowed: PRIMARY or SECONDARY. The log file may be damaged and therefore cannot be read.

`312xxy` Bad log entry.

A bad disk pair number was found in either the Disk or End log entry in the System Update log. The log file may be damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`313xxy` Bad completion code.

The System Update Readlog command found that the End entry in the System Update log file contains a bad completion code. Only two completion codes are allowed: SUCCESS or FAILURE. The log may be damaged and therefore cannot be read.

`314xxy` Tried to reserve the same disk twice.

System Update tried to reserve a disk that has already been reserved. Try to continue the update using the `UPD:GEN;CONTINUE` command.

`315xxy` Tried to release an unreserved disk.

System Update tried to release a disk that was never previously reserved. Try to continue the update using the `UPD:GEN;CONTINUE` command.

`316xxy` Bad UCB disk state requested.

A bad state was specified when System Update attempted to change the state of a UCB (valid states = `OOS`, `ACT`) or a disk (valid states = `OOS`, `OFL`). Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists,

either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the `applhook` process.
- If this error occurred during any other System Update process, start the update over from the beginning of the Enter step.

`317xxy` Bad sequence indicator.

The System Update Readlog command found that the Tape entry in the System Update log file contains a bad sequence number. Only three sequence entries are allowed: FIRST, SECOND, or THIRD. The log may be damaged and therefore cannot be read.

`318xxy` Bad continuable indicator.

The System Update Readlog command found that the End entry of the System Update log contains a bad continuable flag variable. Only two continuable flag variables are allowed: YES or NO. The log may be damaged and therefore cannot be read.

`319xxy` BEGIN ENTER log entry could not be found in the System Update log file.

The log may be damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`320xxy` System Update Enter command terminated.

The System Update Enter command terminated while it was updating the backup partitions using the offline disk method and then was continued using the `UPD:GEN;CONTINUE` command. In order for System Update to know which partition it was in the middle of updating before it terminated, it looks in the log file and attempts to find the last UPDATE ENTER log entry.

In this case, the UPDATE ENTER log entry could not be found. Therefore, System Update could not do any further processing. Try to continue the update again using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter command.

`321xxy` VTOC on FDFT tape exceeds maximum allowed.

The size of the VTOC on the LDFT tape is greater than the maximum size allowed: 512 bytes (for Generic 2) and 1024 bytes (for Release 1). The VTOC may be damaged on the LDFT tape. Regenerate a new tape.

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322xxy Write log entry found in System Update log file without a proceeding Disk log entry.

The log file may be damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

323xxy Log file retrived not requested.

System Update requested a log entry (Disk, Tape, or End) from the log file, but the log entry that was retrieved was not the one requested. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

324xxy Corresponding disk log not found.

While searching the System Update log file, System Update could not find the Disk log entry that corresponds to the bootdisk being updated. Try to continue the update using the `UPD:GEN;CONTINUE` command.

325xxy Incorrect update method specified.

System Update found an incorrect update method specified in the internal variable `glob_method` which was obtained through the Enter command line or the System Update log file. Only two methods are allowed: backup partition method or off-line disk method. The log may be damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the entire update over from the beginning of the Enter step.

326xxy Bad execution mode found on Enter command line.

Only two execution modes are allowed: conditional or unconditional. Start the update over from the beginning of the Enter step.

327xxy Bad sequence option in log file.

System Update found bad sequence option in the log file. Valid sequence options are: SGL, DBL, or TPL. The log may be damaged and therefore cannot be read. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter command.

5. Errors Associated with Execution

401xxy Context of request is invalid.

The System Update Enter command was executed conditionally (without the UCL argument) while the System Update log file contained log entries (possibly from a previous update session). Either remove the log file (`/etc/log/suprlog`) or execute the Enter command using the UCL argument on the command line.

`402xxy` Bad input file (tape unit) specified.

The input file specified (normally a tape unit) on the Enter command line is invalid. Make sure that the name is entered correctly (the name of a tape unit is of the form `/dev/mt`*nn* where *nn* is a two digit hexadecimal number). If the input is from a tape, make sure that the unit is on-line. Re-execute the Enter command with the UCL argument on its command line.

`403xxy` Data not in sync.

The tape being read is either not a tape usable with System Update (not in LDFT format), the data on it has been mutilated, or the LDFT formatted tape being used was created for a different processor. Make sure that the correct tape has been mounted, and continue the update using the `UPD:GEN;CONTINUE` input command.

`404xxy` Data sequence id incorrect (wrong tape).

The data input does not belong on the disk being written. Make sure that correct tape has been mounted and continue the update using the `UPD:GEN;CONTINUE` input command.

`405xxy` Data sequence number out of order.

One of the tapes in the sequence has been mounted out of order. Mount the correct tape and continue the update using the `UPD:GEN;CONTINUE` input command.

`406xxy` Bad destination VTOC specified.

The filename specified for the disk being updated is not a block special device file or the disk cannot be opened. Check that the filename was entered correctly. If not, re-execute the Enter command using the UCL argument on the command line.

`407xxy` This error code is no longer used.

`408xxy` User did not return from "continue" request.

When a new tape needs to be mounted, a `mount tape and continue` message appears. After the user mounts the tape, the `UPD:GEN;CONTINUE` command needs to be executed in order for the update to continue its processing.

System Update waits 30 minutes for the Continue command to be executed. If it is not executed, another `mount tape and continue` message appears and System Update waits another 30 minutes for the Continue command to be executed. If it still is not executed, System Update terminates with this error code. Execute the `UPD:GEN;CONTINUE` command to continue the update process where System Update left off.

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`409xxy` Attempt to run two system update processes.

The user attempted to

- run two System Update processes at the same time (when one System Update process is running another one may not be started unless it is one of the following: Stop, Continue, or Readlog)
- run a System Update process while Field Update or PDT is currently running (a System Update cannot be performed while Field Update or PDT is running)

If a System Update process needs to be stopped, the System Update Stop command may be used to stop it. If this is not successful, seek technical assistance.

`410xxy` User stopped process (not a fault condition).

This `error` code is used to acknowledge that the user terminated one of the System Update processes (`Commit`, `Restore`, `Backout`, `Enter`, or `Proceed`) using the System Update `Stop` command. There is no fault condition associated with this code.

`411xxy` No process exists to talk to (e.g., nothing to stop).

The user has attempted to stop a System Update process using the System Update Stop command when there are no System Update processes that are running.

`412xxy` System update log is empty.

The System Update log file does not contain any log entries when it is expected to in one of the following situations:

- An attempt to continue a System Update process was made, but the command to be continued could not be figured out since this information is contained in the log file and the log file is either empty or does not contain the BEGIN ENTER log entry,
- The log file was attempted to be read via the System Update Readlog command, but there was nothing to read since the log file was empty,
- One of the System Update processes (excluding the Enter process) was executed when the log file was empty. These processes need information in the log in order to complete their processing, or
- The log file was attempted to be searched for information, but the log file is empty.

Start the update over from the beginning of the Enter command.

`413xxy` Off-line disk method started with one disk active.

The offline disk method is being used and a disk was selected by System Update to retain the old generic, but this disk is not in the Active state. All disk pairs must be duplexed (active) before the Enter command is executed. Restore

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all affected disks to service and execute the Enter command again using the UCL argument on its command line. If this error occurred because the System Update Enter process aborted leaving one or more disks in the offline state, execute the Restore command using the UCL argument on its command line and wait for it to complete. Then, start the update over from the beginning of the Enter step.

`414xxy` In off-line disk method with both disks active.

An offline disk was somehow restored to service when System Update expected it to be in the offline state. If all affected disks are offline, try to continue the update using the `UPD:GEN;CONTINUE` command. If an affected disk(s) is active or if the error persists after the continue, start the update over from the beginning of the Enter step.

`415xxy` Process did not log failure termination.

The user attempted to restart a System Update process with the Continue command but the last System Update process that was run logged a successful termination and therefore cannot be continued. Dumping the System Update log file using the Readlog command may be helpful in determining what happened to the last process. Try to execute the next System Update process.

`416xxy` Process is not continuable.

The user attempted to restart a System Update process using the Continue command, but the last System Update process that was run failed due to a problem which would usually cause it to fail again. For example, one of the pathnames in an Enter input message was bad, or one or more log entries needed for continuing the process are corrupted.

Dumping the log file using the Readlog command may be helpful in determining what happened to the original process. Try to re-enter the original input message using the UCL argument on the command line (for the Enter command, make sure the disks are duplexed first - see error code `413xxy`).

`417xxy` Disk is no longer off-line.

A specified disk device is not in any of the following valid states: offline, out of service, or active. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Enter process, restore the disk to an active state and re-execute the Enter command using the UCL argument on its command line.
- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.

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- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the `applhook` process.

`418xxy` Bad destination DFC specified.

An invalid DFC unit number was specified as an argument to the `OFLDISK` keyword on the Enter command line. Valid DFC unit numbers are 0 (zero) and 1 (one). The DFC number can be omitted, in which case the Enter process will chose DFC 1.

`419xxy` Command executed out of order.

A System Update command was executed out of order.

- The `Proceed` command was executed before the `Enter` command completed successfully.
- The `Commit` command was executed before the Proceed command completed successfully.
- The `Backout` command was executed before the Proceed command completed successfully.
- If error code `y` is `4`, the `Restore` command was executed before the `Proceed` command completed successfully. Execute the `Restore` command unconditionally using the UCL argument on its command line.
- If error code `y` is `5`, `Conditional Restore` after successful `Backout` or `Proceed` is no longer valid. Execute the `Restore` command unconditionally using the UCL argument on its command line.

`420xxy` Incorrect file system base is running.

The wrong file system base is currently running for the System Update command that was just executed.

- `Backout` and `Commit` commands - the file system currently running needs to be the new generic.
- `Proceed` and `Restore` commands - the file system currently running needs to be the old generic.

If the wrong command was executed, execute the right one. If the right command was executed, boot the system so that it is running on the correct file system, then execute the command again.

`421xxy` Disk not in active state.

The offline disk method is being used and a disk was selected by System Update to contain the new generic, but this disk is not in the Active state. All disk pairs must be duplexed (active) before the `Enter` command is executed. Restore all affected disks to service and execute the `Enter` command again.
If this error occurred because the System Update Enter process aborted leaving

one or more disks in the offline state, execute the Restore command using the UCL argument on the command line and wait for it to complete. Then, start the update over from the beginning of the Enter step.

`422xxy` Disk being updated not in offline state.

When the backup partitions are being updated using the offline disk method, the disk being updated should be in the offline state, but it is not. Check the Common Processor Display page (page 102) or another page which shows the MHDs. If all disks affected are active, try to re-execute the Enter command using the UCL argument on the command line. If any affected disks are out of service, restore them and then re-execute the Enter command using the UCL argument on the command line.

`423xxy` Disk being updated is no longer in offline state.

The disk being updated, which should be in the offline state, is no longer in that state. Check the Common Processor Display page (page 102) or another page which shows the MHDs. If all disks affected are active, try to re-execute the Enter command using the UCL argument on the command line. If any affected disks are out of service, restore them and then re-execute the Enter command using the UCL argument on the command line.

6. Errors Associated with Application Processing

`501xxy` Time limit message error.

This error may have occurred because

- the application process did not send a message indicating a time limit that it needs to do its processing
- the message that the application process sent to set a time limit was damaged
- the UNIX® RTR `send()` process failed when the application process tried to use it to send a time limit message to the System Update Process

If the error occurred because the application process did not send a time limit message, start the application process over using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`502xxy` Application hook process failed or did not return.

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

7. Errors Associated with Interfaces with UNIX® RTR

`601xxy` User is not privileged for execution.

The System Update process must be executed from a login that has superuser permissions. After resolving the problem, try to continue the update using the

`UPD:GEN;CONTINUE` command.

`602xxy` Timeout for SIM message.

When System Update sends SIM a message, it sets a time out limit by which it must receive the return message from SIM. This error occurred when System Update was waiting for the return message from SIM. This error may have occurred because

- System Update did not receive a return message from SIM within the time out limit
- the `recvw()` process that waits for the return message from SIM failed

Try to continue the update using the `UPD:GEN;CONTINUE` command.

`603xxy` Time out for MIRA message.

When System Update sends MIRA a message, it sets a time out limit by which it must receive the return message from MIRA. This error occurred when System Update was waiting for the return message from MIRA. This error may have occurred because

- System Update did not receive a return message from MIRA within the time out limit
- the `recvw()` process that waits for the return message from MIRA failed

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the `Enter` step, or take one of the following actions:

- If this error occurred during the `Restore` process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.
- If this error occurred during the `Commit` process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the `applhook` process.
- If this error occurred during any other System Update process, start the update over from the beginning of the `Enter` step.

`604xxy` Timeout for disk driver message.

When System Update sends the disk driver a message, it sets a time out limit by which it must receive the return message from the disk driver. This error occurred when System Update was waiting for the return message from the disk driver. This error may have occurred because

- System Update did not receive a return message from the disk driver within the time out limit
- the `recvw()` process that waits for the return message from the disk driver

failed

Try to continue the update using the `UPD:GEN;CONTINUE` command.

`605xxy1` Bad MIRA return on message.

When System Update receives a return message from MIRA, it checks certain fields in the message for bad values. This error occurs when System Update finds a bad value in one of the fields in the return message. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the `applhook` process.
- If this error occurred during any other System Update process, start the update over from the beginning of the `Enter` step.

`606xxy` Bad disk driver return on message.

When System Update receives a return message from the disk driver, it checks the return code that is in the message. The value of the return code must be zero. This error occurred because the return code was a value other than zero. Try to continue the update using the `UPD:GEN;CONTINUE` command.

`607xxy` Wrong disk state result.

After MIRA changes the state of the disk (to Active or Out of Service), System Update checks the UCB of that disk in the ECD to make sure that the change actually took place. This error occurred when System Update thought it changed the state of the disk, but the UCB of that disk does not reflect the change. Either MIRA did not change the state correctly or the state field in the UCB is damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the `applhook` process.

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- If this error occurred during any other System Update process, start the update over from the beginning of the `Enter` step.

`608xxy` No active boot disks.

System Update checks the UCB in the ECD to find out which disk is the current system disk that is in the active state. This error occurred because there were not any disks that were in the active state. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, restore both disks to the active state and start the update over from the beginning of the `Enter` step.

`609xxy` Partition copy error.

The command `COPY:PTN:ALL` failed when the System Update Restore or `Commit` command used it to copy the new or old generic over the old or new generic during a backup partition method update. The error(s) associated with the command `COPY:PTN:ALL` will be saved in `/tmp/supr.prtcp`. The most common cause for this error is when the disks are not duplexed (e.g., both disks are not active) when the `Restore` or `Commit` commands are executed. After resolving the problem, (e.g., duplex both disks), continue the update using the `UPD:GEN;CONTINUE` command.

`610xxy` Recent change error.

This error occurred when System Update was performing a Recent Change on the ECD. The journal file and the error messages will be saved in `/tmp/supr.rcv` and `/tmp/supr.rcvout` respectively. After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

`611xxy` Copy command failed.

This error may have occurred when System Update was copying the log from the old generic to the new generic. Additional error codes can be found in `/tmp/supr.cp`. After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

`612xxy` `ECDMAN ugucbn() error`.

This error occurred when System Update used the ECD function `ugucbn()` to get information about the UCB record associated with a specified disk. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the `Restore` process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.
- If this error occurred during the `Commit` process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the `applhook` process.

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- If this error occurred during any other System Update process, start the update over from the beginning of the `Enter` step.

`613xxy ECDMAN ugetucb() error.`

This error occurred when System Update used the ECD function `ugetucb()` to get the UCB record for a specified disk. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the `Enter` step, or take one of the following actions:

- If this error occurred during the `Restore` process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.
- If this error occurred during the `Commit` process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the `applhook` process.
- If this error occurred during any other System Update process, start the update over from the beginning of the `Enter` step.

`614xxy ECDMAN ugmamirids() error.`

This error occurred when System Update used the ECD function `ugetrec()` to get the pointer to the UCBs for the two disks that are associated with the update. Try to continue the update using the `UPD:GEN;CONTINUE` command.

`615xxy ECDMAN ursvucd() error.`

This error occurred when System Update used the ECD function `ursvucb()` to reserve a UCB. The disk that System Update is trying to update must first be reserved so that no other processes can write to it. This is done by reserving the disk's UCB. The `ursvucb()` function may have failed because another process has already reserved the disk that is trying to be reserved. Check to see if the disk is already reserved. If it has been reserved, execute the following command on a UNIX® terminal to unreserve the disk: `/etc/udgnnm MHD` *x* where *x* is the disk number that needs to be unreserved. Then, try to continue the update using the `UPD:GEN;CONTINUE` command.

`616xxy ECDMAN ugsdf() error.`

This error occurred when System Update used the ECD function `ugsdf()` to get the special device file name associated with the disk to be updated so that System Update can access that disk. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

`617xxy ECDMAN urelucb() error.`

This error occurred when System Update used the ECD function `urelucb()` to release (unreserve) a reserved UCB. Try to continue the update using the

`UPD:GEN;CONTINUE` command.

`618xxy` `ECDMAN ursdf() error.`

This error occurred when System Update used the ECD function `ursdf()` to give back to the system the special device file name of the updated disk that was obtained by the `ugsdf()` command (see error `616xxy`). Try to continue the update using the `UPD:GEN;CONTINUE` command.

`619xxy` `ECDMAN usettnum() error.`

System Update no longer uses the ECD `usettnum()` function, so this error should never appear.

`620xxy` `ECDMAN usetucb() error.`

System Update no longer uses the ECD `usetucb()` function, so this error should never appear.

`621xxy` `Unable to stop process with pkill.`

The System Update `Stop` command could not stop the currently running System Update process using the `pkill()` function call. If the `Stop` command cannot kill a System Update in progress using the `kill()` function call, it then tries to kill it using the `pkill()` function call. The `pkill` function call may have failed because there was a bad Process ID number (PID) in the System Update log file for the process that needed to be terminated.

The `Stop` command looks in the log file to find the PID of the process that is currently running and calls `pkill` with that PID. If the PID is damaged in the log file, the `pkill` command may be executed manually using the correct PID of the process that needs to be terminated.

`622xxy` `Unable to stop process with kill.`

The System Update `Stop` command could not stop the currently running System Update process using the `kill()` function call. The `kill()` function call is used in the Stop command to terminate the System Update process that is currently running. The `kill` function call may have failed because

- the process to be killed does not exist
- the sending process is not a superuser, and the sending and receiving processes do not have the same effective user ID
- the Process ID (PID) of the process being terminated is damaged in the System Update log. The `Stop` command passes this PID as a parameter to `kill()`

If the System Update still needs to be stopped, execute the System Update `Stop` process unconditionally using the UCL argument on its command line. **CAUTION:** if `Stop` is executed unconditionally, the System Update process will be terminated by a more extreme method than a kill (`pkill`). Some system resources in use by the process may not be automatically released.

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623xxy System error killed the process.

A System Update process was terminated due to a phase 1 signal. System Update may not get a chance to print this error message when the interrupt occurs. If the System Update process is continued using the UPD:GEN;CONTINUE command, the Continue command will put this error code in the End entry of the System Update log file.

624xxy Cannot execute System Update while the Alternate Boot Disk (ABD) Feature is active.

System Update checks the status of the ABD feature when starting. If the system has a boot disk other than MHD 0 or 1, then ABD feature is active. Wait until the ABD active state has been cleared and then start the update.

ID . . . . . APP-SUPR-MENU-PG
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

SYSTEM UPDATE PROCEDURE MENU PAGE APPENDIX

1. Introduction

This appendix contains the System Update Menu Page error codes in Release 1. This appendix describes all the possible System Update menu page error conditions that can occur when installing a System Update using the System Update menu page. These error conditions are not affiliated in any way with the error conditions output by the System Update processes. System Update error conditions are described in the *UNIX® RTR Output Message Manuals* under the SUPR Appendix. The System Update menu page error conditions are divided into five categories: System Update log file errors (1-199), UNIX® RTR system call errors (200-399), System Update menu page internal errors (400-599), Craft user errors (600-799), and general warning messages (800-999).

The following sections describe, in detail, each error condition and the possible actions that may be taken to correct the error. For all error conditions corresponding to System Update processes, the following actions should be taken in the order they are listed here.

1. After correcting the condition that caused the error, try to continue the update using the 704 menu page poke for the `Continue` command.
2. If the `Continue` does not work, try finishing the update manually using input command on the Manual Input Command Line.
3. If the update cannot be finished manually, remove the System Update log file (`/etc/log/suprlog`), terminate the System Update menu page, and start the update over from the very beginning of the System Update procedures (the `Enter` command). The update may be installed using either manual procedures or menu driven procedures (System Update menu page). Make sure that the system is in a sane state before re-starting the update.

2. System Update Log File Errors

These error conditions occur when System Update is accessing the System Update log file.

`1` The System Update `getlog()` function failed when the `Continue` command was specified. The `getlog()` function was called to get the last log entry in the System Update log file to determine which command is to be continued. If continuing the update does not work, the log file may be damaged.

`2` When the `Continue` command was specified, the last log entry in the System Update log file was obtained in order to determine which command is to be continued. Either no log entries were found in the log file or only the

LOGFIRST entry was found which indicates that no command was executed far enough to be able to be continued. Try to execute the desired command from the beginning of that command. If continuing the update does not work, the log file may be damaged.

3 When the `Continue` command was specified, the last log entry in the System Update log file was obtained in order to determine which command is to be continued. The process type in the log entry found contains a bad value. Therefore, the process being continued cannot be determined. Valid process types are:

`b` = `Backout` command
`c` = `Commit` command
`e` = `Enter` command
`p` = `Proceed` command
`r` = `Restore` command

If continuing the update does not work, the log file may be damaged.

4 The System Update log file was being searched in order to determine which System Update process last completed successfully so that a visual indication of the successfully completed commands can be displayed in reverse video on the System Update Menu Page. A bad process type was found in the log entry corresponding to the last completed process. Valid process types are:

`b` = `Backout` process
`c` = `Commit` process
`e` = `Enter` process
`p` = `Proceed` process
`r` = `Restore` process

The log file may be damaged.

5 The System Update menu page was trying to get, from the `Begin Enter` entry in the System Update log file, the `Enter` command line arguments that were previously specified. An invalid sequence option was found in the `Begin Enter` log entry. Valid sequence options are:

`f` = single sequence (first sequence)
`s` = double sequence (second sequence)
`t` = triple sequence (third sequence)

The menu page terminates when this error occurs since this may be an indication that the log file is damaged. Try to bring up the menu page again. If the error persists, read the log file using the `OP:GEN:READLOG` command. Look at the Begin Enter log entry and make sure that the sequence options are listed correctly. If not, remove the log file and start the update over from the beginning of the `Enter` step. If the sequence options are correct, try to finish the update manually using MML input commands.

6 The System Update menu page was trying to get, from the `Begin Enter` entry in the System Update log file, the Enter command line arguments that were previously specified. An invalid update method was found in the `Begin Enter` log entry. Valid update methods are:

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b = backup partition update method
o = offline disk update method

The menu page terminates when this error occurs since this may be an indication that the log file is damaged. Try to bring up the menu page again. If the error persists, read the log file using the `OP:GEN:READLOG` command. Look at the `Begin Enter` log entry and make sure that the sequence options are listed correctly. If not, remove the log file and start the update over from the beginning of the `Enter` step. If the sequence options are correct, try to finish the update manually using MML input commands.

7 When it is time for a user to mount a tape and continue the update during the `Enter` command, the Enter command sends a signal to the menu page in order to tell the menu page that a `mount tape and continue` message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the System Update log file. When the menu page receives the `mount tape and continue` signal from the `Enter` command, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the `Enter` command line in the display area of the menu page. In this case, the fake disk log entry could not be found in the log file. Terminate the menu page and try to bring it back up again. The `mount tape and continue` message should be displayed and the MML `Enter` input command line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the `Enter` command, or try to continue the update manually using MML input commands.

8 When it is time for a user to mount a tape and continue the update during the `Enter` command, the `Enter` command sends a signal to the menu page in order to tell the menu page that a `mount tape and continue` message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the System Update log file. When the menu page receives the `mount tape and continue` signal from the `Enter` command, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the `Enter` command line in the display area of the menu page. In this case, an invalid disk pair number was found in the fake disk log entry. The disk pair number found was a number less than one. Valid values are 1 and greater. Terminate the menu page and try to bring it back up again. The `mount tape and continue` message should be displayed and the MML `Enter` input command line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the `Enter` command, or try to continue the update manually using MML input commands.

9 When it is time for a user to mount a tape and continue the update during the

`Enter` command, the `Enter` command sends a signal to the menu page in order to tell the menu page that a `mount tape and continue` message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the System Update log file. When the menu page receives the `mount tape and continue` signal from the `Enter` command, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the `Enter` command line in the display area of the menu page. In this case, an invalid disk pair number was found in the fake disk log entry. The disk pair number found was a number that is greater than the total number of disks being updated. Terminate the menu page and try to bring it back up again. The `mount tape and continue` message should be displayed and the MML `Enter` input command line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the `Enter` command, or try to continue the update manually using MML input commands.

3. UNIX® RTR System Call Errors

These error conditions occur when a UNIX® RTR system call executed by the System Update menu page fails. More information about these UNIX® RTR System Calls can be found in Volume 3 of the Output Message Manuals under System Error Codes. The manual pages for these system calls may be found in Volume 3 Section 6 of the UNIX® RTR Operating System manuals.

`200` The function `sendpw()` failed when the menu page was sending DAP a message to free and initialize the System Update Menu Page. Try to bring up the System Update menu page again by typing the 107 menu poke.

`201` When the TERM PAGE poke was requested, the function `sendpw()` failed. The menu page was sending DAP a message to free the System Update Menu Page before it terminated so that the menu page would terminate cleanly. Try to terminate the menu page again using the TERM PAGE poke.

`202` When the TERM PAGE poke was requested, the function `sendpw()` failed. The menu page was sending DAP a message to free Enter Arguments Page 1 before it terminated the menu page so that the menu page would terminate cleanly. Try to terminate the menu page again using the TERM PAGE poke.

`203` When the TERM PAGE poke was requested, the function `sendpw()` failed. The menu page was sending DAP a message to free Enter Arguments Page 2 before it terminated the menu page so that the menu page would terminate cleanly. Try to terminate the menu page again using the TERM PAGE poke.

`204` The `getenv()` function failed when the menu page tried to get the terminal type from the environment. Try to bring up the System Update menu page again by typing the 107 poke.

`205` The `sendpw()` function failed when the menu page tried to send DAP a message to display one of the System Update pages.

page number 0 = System Update Menu Page
page number 1 = Enter Arguments Page 1
page number 2 = Enter Arguments Page 2

Try to display the page again by typing the appropriate poke.

206 The `msgenab()` function failed when the menu page tried to enable message reception. Try to bring up the System Update menu page again by typing the 107 poke.

207 The `recvw()` function failed when receiving or waiting for a message from DAP indicating that a poke was requested from the System Update Menu Page. Re-request the poke that failed.

208 The `sendpw()` function failed when sending a message to DAP to display one of the PDS/MML input command lines in the display area of the System Update Menu Page. Re-request the poke for the command that is desired to be displayed.

209 The `recvw()` function failed when receiving or waiting for a poke on one of the Enter Arguments pages. Try to specify the desired poke again.

210 The `recvw()` function failed when receiving or waiting for an argument to the Enter command line to be input by the user. Re-request the poke to the desired argument and then try to specify the argument contents again.

211 The `sendpw()` function failed when sending a pokeop message to DAP so that a poke on the System Update Menu Page can be processed. Try to request the desired poke again.

212 The `open()` function failed when the System Update log file was being opened for reading. The menu page was going to read the log file entries to determine which System Update process last completed successfully in order to visually indicate the successfully completed commands in reverse video on the System Update Menu Page. Try to bring up the menu page again by typing the 107 poke. If this error still occurs, the log file may be damaged.

213 The `read()` function failed when reading the first log entry in the System Update log file. It was being read when the menu page was in the process of determining which System Update process last completed successfully in order to visually indicate the successfully completed commands in reverse video on the System Update Menu Page. Try to bring up the menu page again by typing the 107 poke. If this error still occurs, the log file may be damaged.

214 The `lseek()` function failed when seeking to the last log entry in the System Update log file. The `lseek()` function was called when the menu page was in the process of determining which System Update process last completed successfully in order to visually indicate the successfully completed commands in reverse video on the System Update Menu Page. Try to bring up the menu page again by typing the 107 poke. If this error still occurs, the log file may be damaged.

215 The `read()` function failed when reading the last log entry in the System Update log file. It was being read when the menu page was in the process of determining which System Update process last completed successfully in order

to visually indicate the successfully completed commands in reverse video on the System Update Menu Page. Try to bring up the menu page again by typing the 107 poke. If this error still occurs, the log file may be damaged.

216 The `lseek()` function failed when seeking backwards to the next log entry in the System Update log file. The `lseek()` function was called when the menu page was in the process of determining which System Update process last completed successfully in order to visually indicate the successfully completed commands in reverse video on the System Update Menu Page. Try to bring up the menu page again by typing the 107 poke. If this error still occurs, the log file may be damaged.

217 The `read()` function failed when reading the next log entry in the System Update log file. It was being read when the menu page was in the process of determining which System Update process last completed successfully in order to visually indicate the successfully completed commands in reverse video on the System Update Menu Page. Try to bring up the menu page again by typing the 107 poke. If this error still occurs, the log file may be damaged.

218 The function `sendpw()` failed when the menu page was sending DAP a message to free and initialize Enter Arguments Page 2. Try to bring up the System Update menu page again by typing the 107 menu poke.

219 The `lcall()` function failed when the `Restore` process was attempting to be executed. Try to execute the `Restore` process again. If this error still occurs, try to finish the update manually using PDS/MML input commands.

220 The `lcall()` function failed when the `Stop` process was attempting to be executed. Try to execute the `Stop` process again. If this error still occurs, try to execute the Stop process manually using the Craft PDS/MML input command. **NOTE:** The execution and termination messages for the `Stop` process will not be displayed on the System Update menu page if the `Stop` process is executed manually.

221 The `lcall()` function failed when the application process was attempting to be executed. Try to execute the application process again. If this error still occurs, try to execute the application process manually using the Craft input command. **NOTE:** The execution and termination messages for the application process will not be displayed on the System Update menu page if the application process is executed manually.

222 The `lcall()` function failed when the `Backout` process was attempting to be executed. Try to execute the Backout process again. If this error still occurs, try to finish the update procedures manually using Craft input commands. **NOTE:** The execution and termination messages for the System Update commands will not be displayed on the System Update menu page if the commands are executed manually.

223 The `lcall()` function failed when the `Commit` process was attempting to be executed. Try to execute the `Commit` process again. If this error still occurs, try to execute the `Commit` process manually using the Craft input command. **NOTE:** The execution and termination messages for the `Commit` process will not be displayed on the System Update menu page if the `Commit` process is executed manually.

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224 The `lcall()` function failed when the `Continue` process was attempting to be executed. Try to execute the `Continue` process again. If this error still occurs, finish the update manually using Craft input commands.

225 The `vcall()` function failed when the `Enter` process was attempting to be executed. Try to execute the `Enter` process again. If this error still occurs, finish the update manually using Craft input commands.

226 The `lcall()` function failed when the `Proceed` process was attempting to be executed. Try to execute the `Proceed` process again. If this error still occurs, try to finish the update manually using Craft input commands. **NOTE:** The execution and termination messages for the System Update commands will not be displayed on the System Update menu page if the commands are executed manually.

227 The `lcall()` function failed when the `Readlog` process was attempting to be executed. Try to execute the `Readlog` process again. If it still does not work, try to execute the Readlog process manually using the Craft input command. **NOTE:** The execution and termination messages for the `Readlog` process will not be displayed on the System Update menu page if the `Readlog` process is executed manually.

228 The function `sendpw()` failed when the menu page was sending DAP a message to free and initialize Enter Arguments Page 1. Try to bring up the System Update menu page again by typing the 107 menu poke.

229 When the System Update menu page is first brought up, it figures out which System Update commands have already been successfully executed so that it can display those menu numbers in reverse video on the menu page. It does this by reading the System Update log file. This error occurred when the menu page was trying to seek to the very first entry in the log file. The `lseek()` command failed. Try to bring up the menu page again. If the error persists, either try to continue the update manually using MML input commands, or remove the log file and start the update over from the beginning of the `Enter` step.

230 When it is time for a user to mount a tape and continue the update during the Enter command, the Enter command sends a signal to the menu page in order to tell the menu page that a `mount tape and continue` message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the System Update log file. When the menu page receives the `mount tape and continue` signal from the `Enter` command, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the `Enter` command line in the display area of the menu page. In this case, the `open()` command failed when the menu page was trying to open the log file. Terminate the menu page and try to bring it back up again. The `mount tape and continue` message should be displayed and the MML Enter input command line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the Enter command, or try to continue the update manually using

MML input commands.

231 When it is time for a user to mount a tape and continue the update during the `Enter` command, the `Enter` command sends a signal to the menu page in order to tell the menu page that a `mount tape and continue` message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the System Update log file. When the menu page receives the `mount tape and continue` signal from the `Enter` command, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the `Enter` command line in the display area of the menu page. In this case, the `lseek()` command failed when the menu page was trying to seek to the first entry in the log file. Terminate the menu page and try to bring it back up again. The `mount tape and continue` message should be displayed and the MML Enter input command line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the `Enter` command, or try to continue the update manually using MML input commands.

232 When it is time for a user to mount a tape and continue the update during the `Enter` command, the `Enter` command sends a signal to the menu page in order to tell the menu page that a `mount tape and continue` message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the System Update log file. When the menu page receives the `mount tape and continue` signal from the `Enter` command, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the `Enter` command line in the display area of the menu page. In this case, the `read()` command failed when the menu page was trying to read the first entry in the log file. Terminate the menu page and try to bring it back up again. The `mount tape and continue` message should be displayed and the MML `Enter` input command line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the Enter command, or try to continue the update manually using MML input commands.

233 When it is time for a user to mount a tape and continue the update during the `Enter` command, the `Enter` command sends a signal to the menu page in order to tell the menu page that a `mount tape and continue` message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the System Update log file. When the menu page receives the `mount tape and continue` signal from the `Enter` command, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the `Enter` command line in the display area of the menu page. In this case, the

`lseek()` command failed when the menu page was trying to seek to the fake disk entry in the log file. Terminate the menu page and try to bring it back up again. The `mount tape and continue` message should be displayed and the MML `Enter` input command line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the `Enter` command, or try to continue the update manually using MML input commands.

`234` When it is time for a user to mount a tape and continue the update during the `Enter` command, the `Enter` command sends a signal to the menu page in order to tell the menu page that a `mount tape and continue` message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the System Update log file. When the menu page receives the `mount tape and continue` signal from the `Enter` command, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the Enter command line in the display area of the menu page. In this case, the `read()` command failed when the menu page was trying to read the fake disk entry in the log file. Terminate the menu page and try to bring it back up again. The `mount tape and continue` message should be displayed and the MML `Enter` input command line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the `Enter` command, or try to continue the update manually using MML input commands.

4. System Update Menu Page Internal Errors

These error conditions occur when the System Update menu page gets "mixed up" internally.

`400` One of the three System Update pages was attempting to be displayed using the internal `dispage()` function which failed because a bad page number corresponding to the page to be displayed was passed to this function.

page number 0 = System Update Menu Page
page number 1 = Enter Arguments Page 1
page number 2 = Enter Arguments Page 2

Try to display the page again by typing the appropriate poke.

`401` While waiting for a poke to be specified on the System Update Menu Page, the `recvw()` function received a message from DAP that either contained less than the minimum number of bytes allowed or contained greater than the maximum number of bytes allowed in a message. Try to specify the desired poke again.

`402` The `Stop` command was requested, but the `Execcmd` variable, which contains the poke number of the current executing System Update command, contains a bad poke number. Therefore, the menu page does not know which command to stop. Try to specify the `Stop` command again.

`403` The application process was being formatted in order to be displayed when a

bad value was found in the variable that saves the mode on which the system is running (MML = 1, PDS = 2). Try to request the application process again. If this error still occurs, execute the application manually using the PDS/MML input command.

404 While waiting for a poke to be specified on one of the Enter Arguments pages, the `recvw()` function received a message from DAP that either contained less than the minimum number of bytes allowed or contained greater than the maximum number of bytes allowed in a message. Try to specify the desired poke again.

405 A poke number could not be found in the text portion of the poke message sent from DAP to the menu page when the user requested a poke from one of the Enter Arguments pages. Therefore, the specified poke could not be processed. DAP may have sent the menu page a damaged message. Try to specify the desired poke again.

406 While waiting for an argument to be specified on one of the Enter Arguments pages, the `recvw()` function received a message from DAP that either contained less than the minimum number of bytes allowed or contained greater than the maximum number of bytes allowed in a message. Specify the poke corresponding to the desired argument and then try to specify the argument again.

407 An invalid number of literal strings were found in the text portion of the poke message sent from DAP to the menu page when the user specified arguments contents on one of the Enter Arguments pages. Therefore, the specified poke or literal string could not be processed. DAP may have sent the menu page a damaged message. Try to specify the desired argument poke and argument contents again.

408 The internal function `checkargs()` checks to make sure that all of the mandatory Enter command line arguments have been specified. If all of them have not been specified, `checkargs()` returns the Enter Arguments page number of the page that contains the poke for the argument that was not specified:

page number 1 = Enter Arguments Page 1
page number 2 = Enter Arguments Page 2

The appropriate Enter Arguments page is displayed depending on the return value from checkargs so that the missing argument can be specified. Checkargs returned a bad page number and therefore the appropriate Enter Arguments page cannot be displayed. Make sure that all of the mandatory `Enter` command line arguments have been specified then type the poke 753 to return to the System Update Menu Page.

409 When formatting the PDS `Enter` input command line, the bootdisk specified was searched for in the Enter arguments structure. It could not be found. Since it is mandatory for a bootdisk to be specified on the `Enter` command line, the PDS `Enter` input command line could not be formatted and therefore could not be displayed in the display area of the System Update Menu Page. Display Enter Arguments Page 2 and make sure that a bootdisk has been specified.

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410 When formatting the PDS `Enter` input command line, a sequence option specified was searched for in the Enter arguments structure. It could not be found. Display Enter Arguments Page 2 again and respecify sequence options for all the disks specified.

411 When formatting the PDS Enter input command line that is to be displayed in the display area of the System Update Menu Page, too many lines were used for the command. The display area only contains 13 lines and more than 13 lines were used to format the `Enter` input command line.

412 After formatting the PDS `Enter` input command line, not all of the disks specified were included in the command line (the number of disks formatted into the command line did not match the number of disks that were specified). The counter that contains the number of disks specified may be damaged. Terminate the menu page using poke 750, bring up the menu page again using poke 107, and re-specify all of the `Enter` command line arguments.

413 When formatting the MML `Enter` input command line, the bootdisk specified was searched for in the Enter arguments structure. It could not be found. Since it is mandatory for a bootdisk to be specified on the `Enter` command line, the MML Enter input command line could not be formatted and therefore could not be displayed in the display area of the System Update Menu Page. Display Enter Arguments Page 2 and make sure that a bootdisk has been specified.

414 When formatting the MML `Enter` input command line, a sequence option specified was searched for in the Entry arguments structure. It could not be found. Display Enter Arguments Page 2 again and re-specify sequence options for all the disks specified.

415 When formatting the MML `Enter` input command line that is to be displayed in the display area of the System Update Menu Page, too many lines were used for the command. The display area only contains 12 lines and more than 12 lines were used to format the `Enter` input command line.

416 After formatting the MML `Enter` input command line, not all of the disks specified were included in the command line (the number of disks formatted into the command line did not match the number of disks that were specified). The counter that contains the number of disks specified may be damaged. Terminate the menu page using poke 750, bring up the menu page again using poke 107, and re-specify all of the `Enter` command line arguments.

417 When the `Enter` input command line was being formatted in order to be displayed in the display area of the System Update Menu Page, the variable containing the input mode of the system was found to be damaged (it contained something other than PDS or MML). Since the menu page does not know which format to use, it cannot display the `Enter` input command line. Terminate the menu page, bring up the menu page again, and re-specify all of the `Enter` command line arguments.

418 When deleting a specified disk, an invalid poke number corresponding to the disk being deleted was found. Try to type in the poke again for the disk being deleted, and then hit the Return key to delete the previously specified disk. If that still does not work, terminate the menu page, bring up the menu page again, and re-specify all of the `Enter` command line arguments.

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419 When specifying a disk, an invalid poke number corresponding to the disk being specified was found. Try to type in the poke again for the disk being specified, and then type in the full pathname of the desired disk. If that still does not work, terminate the menu page, bring up the menu page again, and re-specify all of the `Enter` command line arguments.

420 A specified tape sequence option was being added to the Enter arguments structure when a bad tape sequence option poke was found in the variable that saves the poke last specified. Try to specify the tape sequence option poke again and then re-specify the tape sequence option argument.

421 A previously specified tape sequence option was being deleted from the Enter arguments structure when a bad tape sequence option poke was found in the variable that saves the poke past specified. Try to specify the tape sequence option poke again and then try to delete the previously specified tape sequence option.

422 A bad poke number was specified on one of the Enter Arguments pages. Specify only a poke number that is on the page currently being displayed.

423 The System Update menu page process received a SIGCLD signal. When the function `qwait()` was executed to find the process id of the child that terminated, the `qwait()` function returned a process id of 0 (zero) which indicates that no child process terminated. If the rest of the System Update cannot be performed using the menu page because of this error, finish the update manually using PDS/MML Craft input commands.

424 The System Update menu page process received a SIGCLD signal. When the function `qwait()` was executed to find the process id of the child that terminated, the `qwait()` function returned a process id of -1 which indicates that no child existed that could terminate. If the rest of the System Update cannot be performed using the menu page because of this error, finish the update manually using PDS/MML Craft input commands.

425 The `Enter` poke was specified and the menu page process executed the `checkargs()` function to make sure that all of the mandatory `Enter` command line arguments have been specified. If at least one of these arguments have not been specified, `checkargs()` returns the page number of the Enter Arguments page that needs to be displayed so that the missing argument can be specified. In this case, checkargs returned an invalid Enter Arguments page number. Valid page numbers are:

page number 1 = Enter Arguments Page 1
page number 2 = Enter Arguments Page 2

Try to specify the `Enter` poke again.

426 The application process terminated unsuccessfully with an error code (a value other than one). Fix the error and then execute the application process again.

427 The `Backout` process terminated unsuccessfully with an error code (a value other than one). To determine the exact System Update error that occurred, look at the `UPD-GEN,BACKOUT` error message that was printed on the ROP by the `Backout` process. This message contains a System Update error code. Look up this error code in the SUPR Appendix, `SUPR-APP`, (Volume 3 of the *UNIX® RTR Output Message Manuals*) to find the exact cause of the error. Fix

the error and then continue the Backout process using the Continue poke.

428 The Commit process terminated unsuccessfully with an error code (a value other than one). To determine the exact System Update error that occurred, look at the UPD-GEN,COMMIT error message that was printed on the ROP by the Commit process. This message contains a System Update error code. Look up this error code in the SUPR Appendix, SUPR-APP, of the *Output Message Manuals* to find the exact cause of the error. Fix the error and then continue the Commit process using the Continue poke.

429 The Continue process terminated unsuccessfully with an error code (a value other than one). To determine the exact System Update error that occurred, look at the UPD-GEN,CONTINUE error message that was printed on the ROP by the Continue process. This message contains a System Update error code. Look up this error code in the SUPR Appendix, SUPR-APP, of the *Output Message Manuals* to find the exact cause of the error. Fix the error and then re-execute the Continue process.

430 The Enter process terminated unsuccessfully with an error code (a value other than one). To determine the exact System Update error that occurred, look at the UPD-GEN,ENTER error message that was printed on the ROP by the Enter process. This message contains a System Update error code. Look up this error code in the SUPR Appendix, SUPR-APP, of the *Output Message Manuals* to find the exact cause of the error. Fix the error and then continue the Enter process using the Continue poke.

431 The Proceed process terminated unsuccessfully with an error code (a value other than one). To determine the exact System Update error that occurred, look at the UPD-GEN,PROCEED error message that was printed on the ROP by the Proceed process. This message contains a System Update error code. Look up this error code in the SUPR Appendix, SUPR-APP, of the *Output Message Manuals* to find the exact cause of the error. Fix the error and then continue the Proceed process using the Continue poke.

432 The Readlog process terminated unsuccessfully with an error code (a value other than one). To determine the exact System Update error that occurred, look at the OP-GEN,READLOG error message that was printed on the ROP by the Readlog process. This message contains a System Update error code. Look up this error code in the SUPR Appendix, SUPR-APP, of the *Output Message Manuals* to find the exact cause of the error. Fix the error and then re-execute the Readlog process.

433 The Restore process terminated unsuccessfully with an error code (a value other than one). To determine the exact System Update error that occurred, look at the UPD-GEN,RESTORE error message that was printed on the ROP by the Restore process. This message contains a System Update error code. Look up this error code in the SUPR Appendix, SUPR-APP, of the *Output Message Manuals* to find the exact cause of the error. Fix the error and then continue the Restore process using the Continue poke.

434 The Stop process terminated unsuccessfully with an error code (a value other than one). The process that was attempted to be stopped is still executing. To determine the exact System Update error that occurred, look at the STOP-GEN error message that was printed on the ROP by the Stop process. This message

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contains a System Update error code. Look up this error code in the SUPR Appendix, SUPR-APP, of the *Output Message Manuals* to find the exact cause of the error. Fix the error if possible and then try to re-execute the Stop process.

435 A child process terminated, but the process id of the terminated child that was obtained via the qwait() function does not match any of the process ids that were saved when each child was executed. If the update cannot be finished using the menu page because of this error, finish the update manually using PDS/MML Craft input commands.

436 The Backout command was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1, PDS = 2). Try to request the Backout command again. If this error still occurs, finish the update procedures manually using PDS/MML Craft input commands.

437 The Backout command was being formatted in order to be displayed when a bad value was found in the Ucl flag variable. Try to request the Backout command again. If this error still occurs, finish the update procedures manually using PDS/MML Craft input commands.

438 The Commit command was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1, PDS = 2). Try to request the Commit command again. If this error still occurs, finish the update procedures manually using PDS/MML Craft input commands.

439 The Commit command was being formatted in order to be displayed when a bad value was found in the Ucl flag variable. Try to request the Commit command again. If this error still occurs, finish the update procedures manually using PDS/MML Craft input commands.

440 The Continue command was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1, PDS = 2). Try to request the Continue command again. If this error still occurs, finish the update procedures manually using PDS/MML Craft input commands.

441 A command is being continued. When the command begins execution, a message indicating that this command is executing is printed on the messages line of the menu page and its input command line is displayed in the display area of the System Update Menu Page. The appropriate message and command line are printed depending on the command that was continued. The menu poke number for the continued command is saved in an internal variable which appears to be damaged because an invalid menu poke number was found. Therefore, the execution message and the input command cannot be displayed. This may not disrupt the rest of the update. The System Update command is still executing. If problems arise, finish the update manually using Craft PDS/MML input commands.

442 The Proceed command was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1, PDS = 2). Try to request the Proceed command again. If this error still occurs, finish the update procedures manually using PDS/MML Craft input commands.

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443 The UCL flag (an internal variable) contains an invalid value. This flag indicates whether or not the UCL argument was requested for the last command specified (which in this case is the Proceed command). Valid values are:

0 = UCL argument was not requested
1 = UCL argument was requested

Try to specify the Proceed command first without any arguments. If arguments are desired, specify them next. If this error still occurs, finish the update manually using Craft PDS/MML input commands.

444 The Retro flag (an internal variable) contains an invalid value. This flag indicates whether or not the RETRO argument was requested for the Proceed command. Valid values are:

0 = RETRO argument was not requested
1 = RETRO argument was requested

Try to specify the Proceed command first without any arguments. If arguments are desired, specify them next. If this error still occurs, finish the update manually using Craft PDS/MML input commands.

445 The Readlog command was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1, PDS = 2). Try to request the Readlog command again. If this error still occurs, execute the Readlog command manually using the PDS/MML Craft input command.

446 The Restore command was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1, PDS = 2). Try to request the Restore command again.

447 The UCL flag (an internal variable) contains an invalid value. This flag indicates whether or not the UCL argument was requested for the last command specified (which in this case is the Restore command). Valid values are:

0 = UCL argument was not requested
1 = UCL argument was requested

Try to specify the Restore command first without any arguments. If arguments are desired, specify them next. If problems still arise, finish the update manually using Craft PDS/MML input commands.

448 The Proceed command was being formatted with the Retro argument in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1, PDS = 2). Try to request the Proceed command without any arguments. Then, if arguments (such as Retro) are desired, specify them next. If this error still occurs, finish the update procedures manually using PDS/MML Craft input commands.

449 The Proceed command was being formatted with the Retro argument in order to be displayed when a bad value was found in the UCL flag (internal variable) which indicates whether or not the UCL argument was requested for the last command specified (which in this case is the Proceed command). Valid values are:

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0 = UCL argument was not requested
1 = UCL argument was requested

Try to specify the Proceed command first without any arguments. If arguments are desired, specify them next. If this error still occurs, finish the update manually using Craft PDS/MML input commands.

450 The Stop command was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1, PDS = 2). Try to request the Stop command again. If this error still occurs, execute the Stop command manually using the PDS/MML Craft input command.

451 The UCL flag (an internal variable) contains an invalid value. This flag indicates whether or not the UCL argument was requested for the last command specified (which in this case is the Stop command). Valid values are:

0 = UCL argument was not requested
1 = UCL argument was requested

Try to specify the Stop command first without any arguments. If arguments are desired, specify them next. If this error still occurs, execute the Stop command manually using the Craft PDS/MML input command.

452 After the menu page poke (107) was requested while on one of the Enter Arguments pages which displayed the System Update Menu Page, a poke was requested from the System Update Menu Page. In order to process this poke, the poke number must be converted to its corresponding literal string name using the internal getname() function which could not find the corresponding literal string name. Try to request the desired poke number again.

453 When a System Update process is continued, the Continue command executes the System Update process and returns the process id and the process type of the continued process to the menu page. The menu page saves the process id in one of the process id variables depending on the process being continued (indicated by the process type). In this case, a bad process type was received from the Continue command. Valid process types are:

b = Backout process
c = Commit process
e = Enter process
p = Proceed process
r = Restore process

Therefore, the process id of the continued process could not be saved. Since the menu page determines when a process terminates using the saved process ids of executed processes, the completion message for the continued process cannot be printed and the menu page will never know when a process terminates. This may or may not be a problem depending on how far the update has gotten. If the Enter command was continued, the Proceed command will fail since the menu page does not know that the Enter command has completed. In all other cases, the update should still work except that the completion message for the continued command will not be displayed on the menu page (but, System Update does display the completion message on the ROP).

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454 The menu page determined the System Update command that was last successfully completed in order to visually display the appropriate commands that have completed in reverse video on the System Update Menu Page and to keep track internally of which System Update commands have already been executed. But, the variable containing the menu number corresponding to the last successfully completed command contains an invalid menu number. Valid menu numbers of successfully completed System Update processes are:

701 = Enter process
702 = Proceed process
703 = Commit process
707 = Restore process
708 = Backout process

Since the menu page has no way of knowing which System Update processes have been successfully executed and which have not, the menu page cannot continue with the update and therefore terminates with an error. Try to bring up the System Update menu page again.

455 The System Update menu page terminated itself due to an error occurring. The error code that corresponds to the error that occurred can be found printed on the ROP. Fix the error, bring up the System Update menu page again, and try to finish the update.

456 The Lastcmd variable which contains the menu number of the last command that was specified, contains an invalid menu number. When the Execute poke is requested, the command to be executed is obtained from the Lastcmd variable. Since the Lastcmd variable contains an invalid menu number, no process can be executed. Re-specify the desired command that is to be executed, and then type in the Execute poke again.

457 The unconditional flag for the Restore command contains an invalid value. Valid values are:

0 = the Restore command is to be executed conditionally
1 = the Restore command is to be executed unconditionally

The Restore command cannot be executed since it cannot be determined if it is to be executed conditionally or unconditionally. Try to specify and execute the Restore command again.

458 The unconditional flag for the Stop command contains an invalid value. Valid values are:

0 = the Stop command is to be executed conditionally
1 = the Stop command is to be executed unconditionally

The Stop command cannot be executed since it cannot be determined if it is to be executed conditionally or unconditionally. Try to specify and execute the Stop command again.

459 The unconditional flag for the Backout command contains an invalid value. Valid values are:

0 = the Backout command is to be executed conditionally

1 = the Backout command is to be executed unconditionally

The Backout command cannot be executed since it cannot be determined if it is to be executed conditionally or unconditionally. Try to specify and execute the Backout command again.

460 The unconditional flag for the Commit command contains an invalid value. Valid values are:

0 = the Commit command is to be executed conditionally
1 = the Commit command is to be executed unconditionally

The Commit command cannot be executed since it cannot be determined if it is to be executed conditionally or unconditionally. Try to specify and execute the Commit command again.

461 The Enter command cannot be executed because the Ucl variable in the Enter arguments structure contains an invalid value. Valid values are:

UCL = the Enter command is to be executed conditionally
NOTSET = the Enter command is to be executed unconditionally

Re-specify YES or NO for the Ucl argument on Enter Arguments Page 1. Then, try to execute the Enter command again.

462 The Enter command cannot be executed because the DFC preference variable in the Enter arguments structure contains an invalid value. Valid values are:

0 = DFC 0
1 = DFC 1
NOTSET = no preference

Re-specify the DFC preference on Enter Arguments Page 1. Then, try to execute the Enter command again.

463 The Enter command cannot be executed because the variable in the Enter arguments structure that indicates whether or not backup partitions are to be updated contains an invalid value. Valid values are:

NOBKUPD = do not update the backup partitions
NOTSET = update backup partitions

Re-specify whether or not backup partitions are to be updated on Enter Arguments Page 1. Then, try to execute the Enter command again.

464 The Enter command cannot be executed because the update method variable in the Enter arguments structure contains an invalid value. Valid values are:

BKPRT = backup partition update method
OFLDISK = offline disk update method

Re-specify the update method on Enter Arguments Page 1. Then, try to execute the Enter command again.

465 The Enter command cannot be executed because the tape sequence option variable for the bootdisk in the Enter arguments structure contains an invalid value. Valid values are:

SGLSEQ = single tape sequence
DBLSEQ = double tape sequence
TPLSEQ = triple tape sequence

Re-specify the tape sequence option on Enter Arguments Page 2. Then, try to execute the Enter command again.

466 The Enter command cannot be executed because the bootdisk could not be found in the Enter arguments structure (System Update will not work unless a bootdisk is being updated in addition to the other disks). Make sure a bootdisk was specified. If not, specify the bootdisk on Enter Arguments Page 2 and attempt to execute the Enter command again.

467 The unconditional flag for the Proceed command contains an invalid value. Valid values are:

0 = the Proceed command is to be executed conditionally
1 = the Proceed command is to be executed unconditionally

The Proceed command cannot be executed since it cannot be determined if it is to be executed conditionally or unconditionally. Try to specify and execute the Proceed command again.

468 The retrofit flag for the Proceed command contains an invalid value. Valid values are:

0 = execute the Proceed command without the RETRO argument
1 = execute the Proceed command with the RETRO argument

The Proceed command cannot be executed since it cannot be determined if it is to be executed with or without the RETRO argument. Try to specify and execute the Proceed command again.

469 When the System Update menu page is first displayed, the System Update log file is read in order to determine which System Update process last completed successfully. The menu number corresponding to that process is saved in the lastcmd variable. In this case, the lastcmd variable was found to contain an invalid menu number. Since the last System Update process that last completed successfully could not be determined, the System Update menu page terminated because it needs this information to run properly. Try to bring up the System Update menu page again. If errors still persist, finish the update manually using Craft PDS/MML input commands. If this still does not work, the System Update log file may be damaged. Return the system to its original sane state, remove the System Update log file, and then start the update from the very beginning (the Enter command).

470 If the System Update menu page is terminated while a System Update process is still executing and the menu page is brought back up before the System Update process completes, the menu page reads the last entry written to the log file and sets an internal variable to indicate which process is executing. The currently executing process is determined by the value in the process type field in the last log entry. In this case, an invalid process type was found. Valid process types are:

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e = Enter process
p = Proceed process
c = Commit process
r = Restore process
b = Backout process

The menu page terminates when this error occurs since this may be an indication that the log file is damaged. Try to bring up the menu page again. If the error persists, read the log file using the OP:GEN:READLOG command. Look at the Begin Enter log entry and make sure that the process type for the last entry is correct. If not, remove the log file and start the update over from the beginning of the Enter step. If the process type is correct, try to finish the update manually using MML input commands.

471 When the menu page is first brought up, it reads the Begin entries in the System Update log file to determine the command line arguments that were previously specified for various System Update processes that either were executing or are executing. In this case, a Begin log entry was read which contains an invalid process type. Valid process types are:

e = Enter process
p = Proceed process
c = Commit process
r = Restore process
b = Backout process

The menu page terminates when this error occurs since this may be an indication that the log file is damaged. Try to bring up the menu page again. If the error persists, read the log file using the OP:GEN:READLOG command. Look at the Begin log entries and make sure that the process types for the entries are correct. If not, remove the log file and start the update over from the beginning of the Enter step. If the process types are correct, try to finish the update manually using MML input commands.

472 If the System Update menu page was terminated while the System Update Enter process was executing and the menu page was brought back up before the Enter process terminated, the menu page reads the System Update log file to determine the Enter command line arguments that were previously specified. In this case, not all of the mandatory Enter command line arguments could be determined. Try to bring up the menu page again. If the error persists, read the log file using the OP:GEN:READLOG command. Look at the Begin Enter log entry and make sure that the mandatory command line arguments are correct. If not, remove the log file and start the update over from the beginning of the Enter step. If the process types are correct, try to finish the update manually using MML input commands.

473 If the System Update menu page was terminated while the System Update Enter process was executing and the menu page was brought back up before the Enter process terminated, the menu page reads the System Update log file to determine the Enter command line arguments that were previously specified. In this case, the Begin Enter log entry, which contains the Enter command line arguments, could not be found in the log file. Try to bring up the menu page again. If the error persists, read the log file using the OP:GEN:READLOG command. Look at the Begin Enter log entry and make

sure that the command line arguments were specified correctly. If not, remove the log file and start the update over from the beginning of the Enter step. If the command line arguments were specified correctly, try to finish the update manually using MML input commands.

474 If the System Update menu page was terminated while a System Update process was executing and the menu page was brought back up before the process terminated, the menu page determines which command is currently executing and sets an internal variable to the process id of the currently executing process. In this case, a process is executing, but the menu page cannot figure out which one since all of the internal variables containing the process ids of the System Update process all indicate that there is no process executing. Try to bring up the menu page again. If the error persists, wait until the currently executing System Update process terminates. Then, try to bring up the menu page.

5. User Errors

These error conditions occur when the error may have been caused by the user.

600 The poke to terminate the System Update menu page was requested when one of the System Update processes or the application process was executing. The menu page can only be terminated if there are no processes currently executing. Wait until the executing process terminates and then try to terminate the menu page again using the TERMPAGE poke.

601 More than three pokes were specified on the CMD< line of the System Update Menu Page. Specify the correct number of pokes (one, two, or three) separated by commas.

602 The RETRO poke was specified on the CMD< line of the System Update Menu Page. System Update does not currently handle this flag yet in Release 1. Therefore, the menu page does not allow it to be specified.

603 The first poke that was specified on the CMD< line of the System Update Menu Page is invalid. It must be one of the pokes that are displayed on that page. Pokes from the two Enter Arguments pages cannot be specified from the System Update Menu Page.

604 The Enter command was requested when it has already successfully completed. The Enter command cannot be executed more than once in one update. Either execute the Proceed and/or Commit commands or execute the Backout and/or Restore commands. If the update needs to be started from the very beginning of the update procedures, remove the System Update log file (/etc/log/suprlog) and then execute the Enter command.

605 The Commit command was requested when it has already successfully completed. The Commit command cannot be executed more than once in one update. If the update needs to be started from the very beginning of the update procedures, remove the System Update log file (/etc/log/suprlog) and then execute the Enter command.

606 The Stop command can be used to stop only the following System Update processes: Backout, Commit, Continue, Enter, Proceed, and Restore. The Stop command was erroneously executed to stop either the Readlog process or the Stop process itself which are not allowed to be stopped by the

`Stop` command.

607 The `Stop` command was requested when no System Update processes that can be stopped are executing.

608 For the following commands, only one or two pokes are allowed to be specified on the CMD< line of the System Update Menu Page at one time (the command poke and the `UCL` flag if desired): `Backout`, `Commit`, `Enter`, `Restore`, and `Stop`. A third poke was specified which is not allowed. Re-request the desired command specifying only the command poke and the `UCL` flag if desired.

609 Two pokes were specified on the CMD< line of the System Update Menu Page for one of the following commands: `Backout`, `Commit`, `Enter`, `Restore`, or `Stop`. The first poke was the poke for the command itself. The only poke value allowed for the second poke for these commands is the UCL poke (using either the UCL poke number 710 or the "UCL" or "ucl" literal string) since this is the only argument allowed on these command lines. In this case, something other than the `UCL` poke or the "UCL" or "ucl" literal string was specified. Re-request the desired command.

610 The `Proceed` command was requested when it has already successfully completed. The `Proceed` command cannot be executed more than once in one update. Either execute the `Commit` command or execute the `Restore` command. If the update needs to be started from the very beginning of the update procedures, remove the System Update log file (`/etc/log/suprlog`) and then execute the `Enter` command.

611 The `RETRO` poke or the "RETRO" or "retro" literal string was specified as the second poke on the CMD< line of the System Update Menu Page when the Proceed command was specified as the first poke. The menu page does not allow this flag since System Update does not handle it yet.

612 The `Proceed` command was specified with an argument on the CMD< line of the System Update Menu Page. The only argument `Proceed` allows is the `UCL` poke or the "UCL" or "ucl" literal string. The argument specified was something other than `UCL`.

613 Three pokes were specified on the CMD< line of the System Update Menu Page when only two are allowed at one time.

614 The third poke specified on the CMD< line of the System Update Menu Page was found to be invalid. Since the first poke specified corresponded to the `Proceed` command, the other two pokes have to correspond with the `UCL` or `RETRO` arguments since these are the only arguments that the `Proceed` command allows. In this case, the third poke was something other than the `UCL` or the `RETRO` argument.

615 Three pokes are not allowed to be specified on the CMD< line of the System Update Menu Page at the same time when the first poke corresponds to the application process.

616 Only one poke is allowed to be specified on the CMD< line of the System Update Menu Page when that poke corresponds to one of the following: `Enter Args1`, `Enter Args2`, `Continue`, `Execute`, `Readlog`, and `Termpage`. In this case, more than one poke was specified.

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617 The Retro poke was specified on the CMD< line of the System Update Menu Page, but the last command specified was not the Proceed command. The Retro poke is only allowed to be specified for the Proceed command.

618 Two pokes were specified on the CMD< line of the System Update Menu Page. The first corresponded to the Retro flag for the Proceed command. The only other poke that is allowed to be specified for the Proceed command corresponds to the UCL flag. In this case the second poke did not correspond to the UCL poke or literal string.

619 Three pokes are not allowed to be specified on the CMD< line of the System Update Menu Page when the first poke corresponds to the UCL poke. Only two pokes are allowed: the UCL poke and the poke or literal string corresponding to the Retro flag (only if the last command currently being displayed in the display area is the Proceed command).

620 Until System Update is changed to handle the Retro flag on the Proceed command line, the System Update menu page will not allow the user to specify the Retro poke. In this case, the UCL poke was specified on the CMD< line of the System Update Menu Page. A second poke was also specified on the CMD< line. A second poke is not allowed to be specified since the only valid value allowed with the UCL poke is the Retro poke and System Update does not handle it yet.

621 When System Update is changed to handle the Retro flag on the Proceed command line and the UCL poke is specified on the CMD< line of the System Update Menu Page along with a second poke, the second poke must correspond to the Retro flag since that is the only argument that can be specified with the UCL argument.

622 The UCL and Retro flags were specified on the CMD< line of the System Update Menu Page, but the last command specified was not the Proceed command. The Retro argument is only allowed to be specified for the Proceed command.

623 The UCL poke was specified on the CMD< line of the System Update Menu Page, but the last command specified does not accept the UCL argument on its command line.

624 The number zero (0) was specified for the update method on the Enter command line. Zero does not correspond to a valid update method argument. If the offline disk method is desired, type the letter **O**. If the backup partition method is desired, type the letter **B**.

625 An invalid update method was specified for the Enter command line. Specify the letter **O** for the offline disk method and the letter **B** for the backup partition method.

626 An invalid tape device was specified. Prior to release 6, the full path name was required. In Release 6 and later, either the full pathname or "mt0", "mT0", "mt1", or "mT1" may be used to specify the tape device.

627 The specified tape device either does not exist or cannot be accessed for reading.

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628 A dfc preference cannot be specified until an update method has been specified. This is done for error checking since a dfc preference can only be made if using the offline disk update method.

629 A dfc preference was specified when the update method specified was not the offline disk method. A DFC preference can only be specified when using the offline disk update method.

630 An invalid dfc preference was specified. Type **0** (zero) for DFC 0, **1** (one) for DFC 1, or **2** (two) to specify no preference.

631 It cannot be specified whether or not the backup partitions will be updated until an update method has been specified. In this case, an update method has not yet been specified. This is done for error checking since it can be specified that the backup partitions will or will not be updated only when using the offline disk update method.

632 It was specified that the backup partitions will or will not be specified when the update method specified was not the offline disk method. It can be specified that the backup partitions will or will not be updated only when using the offline disk update method.

633 When requesting that the backup partitions will or will not be updated, an invalid argument value was specified. Type `N` if the backup partitions are not to be updated, type `Y` if the backup partitions are to be updated.

634 When specifying whether or not the `Enter` command is to be executed unconditionally, an invalid argument value was specified. To execute the `Enter` command unconditionally, type **`Y`**. To execute the `Enter` command conditionally, type **`N`**.

635 All of the mandatory `Enter` command line arguments were being checked to make sure that they were all specified (update method, tape device, and bootdisk to be updated). It was found that the update method has not yet been specified.

636 All of the mandatory `Enter` command line arguments were being checked to make sure that they were all specified (update method, tape device, and bootdisk to be updated). It was found that the tape device has not yet been specified.

637 All of the mandatory `Enter` command line arguments were being checked to make sure that they were all specified (update method, tape device, and bootdisk to be updated). It was found that a tape sequence option was specified for a disk that was not specified. Either remove all tape sequence option specifications, or specify the corresponding disks to be updated.

638 When the tape sequence option becomes a mandatory `Enter` command line argument, this error message will be printed when a disk to be updated has been specified, but its corresponding tape sequence option has not been specified. Either remove the disk to be updated specification or specify its corresponding tape sequence option.

639 A disk to be updated was not specified. It is mandatory that at least one disk is specified. This disk must be a bootdisk.

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640 It is a System Update requirement that one of the specified disks to be updated has to be the bootdisk (currently called /dev/vtoc). The bootdisk could not be found and therefore is assumed to have not yet been specified.

641 A full pathname was not specified for the specified disk to be updated.

642 The specified disk to be updated does not exist, cannot be accessed for reading, or cannot be accessed for writing. Make sure the correct disk has been specified.

643 A bad tape sequence option was specified. The only valid tape sequence options are:

S = single tape sequence option
D = double tape sequence option
T = triple tape sequence option

Specify the tape sequence option again using a correct value.

644 The Commit command was specified before the Enter command was executed. First execute the Enter and Proceed commands and then execute the Commit command.

645 The Commit command was specified before the Proceed command was executed. Execute the Proceed command and then execute the Commit command.

646 The Proceed command was specified before the Enter command was executed. Execute the Enter command and then execute the Proceed command.

647 The first poke that was specified on the CMD< line of the System Update Menu Page was invalid. The only pokes allowed are the pokes that are being displayed on the current page. Try to specify the desired poke again.

648 A System Update process was attempted to be continued when the continue flag in the System Update log file for that process indicates that this process is not continuable. Make sure that the last command executed really needs to be continued.

649 The UCL argument was specified. But, a command that the UCL argument is for has not yet been specified. Specify the command that is to be executed. If the UCL argument is desired,

650 The UCL argument was specified. But, the last command specified that the UCL argument is for does not allow the UCL argument on its command line. Specify the desired command and the UCL argument again. specify it next.

651 The Commit command cannot be executed because it has already been successfully executed. If the Commit command was not really executed previously, try to execute the Commit command manually using the Craft PDS/MML input command. If this error still occurs, terminate the System Update menu page, remove the System Update log file, return the system to a sane state, and start the entire update over again from the very beginning of the Enter command.

652 The Enter command cannot be executed because it has already been successfully executed. If the Enter command was not really executed previously, try to execute the Enter command manually using the Craft PDS/MML input command. If this error still occurs, terminate the System Update menu page, remove the System Update log file, return the system to a sane state, and start the entire update over again from the very beginning of the Enter command.

653 The Proceed command cannot be executed because it has already been successfully executed. If the Proceed command was not really executed previously, try to execute the Proceed command manually using the Craft PDS/MML input command. If this error still occurs, terminate the System Update menu page, remove the System Update log file, return the system to a sane state, and start the entire update over again from the very beginning of the Enter command.

654 The Execute menu poke was requested before the System Update or application command that is to be executed was specified. Type the menu poke that corresponds to the process to be executed, and then type the Execute menu poke.

655 The application process was requested while a previous call to the application process is still executing. Only one application process can be executing at a time. Wait for the first application process to terminate. Then execute the next application process call.

656 The Backout command was attempted to be executed while another System Update command (Commit, Continue, Enter, Proceed, or Restore) was executing that would conflict with the Backout command. Wait for the executing System Update command to terminate or terminate it manually using the Stop command, and then try to execute the Backout command again.

657 The Commit command was attempted to be executed while another System Update command (Backout, Continue, Enter, Proceed, or Restore) was executing that would conflict with the Commit command. Wait for the executing System Update command to terminate or terminate it manually using the Stop command, and then try to execute the Commit command again.

658 The Continue command was attempted to be executed while another System Update command (Backout, Commit, Enter, Proceed, or Restore) was executing that would conflict with the Continue command. Wait for the executing System Update command to terminate or terminate it manually using the Stop command, and then try to execute the Continue command again.

659 The Enter command was attempted to be executed while another System Update command (Backout, Commit, Continue, Proceed, or Restore) was executing that would conflict with the Enter command. Wait for the executing System Update command to terminate or terminate it manually using the Stop command, and then try to execute the Enter command again.

660 The Proceed command was attempted to be executed while another System

Update command (`Backout`, `Commit`, `Continue`, `Enter`, or `Restore`) was executing that would conflict with the `Proceed` command. Wait for the executing System Update command to terminate or terminate it manually using the `Stop` command, and then try to execute the `Proceed` command again.

661 The `Restore` command was attempted to be executed while another System Update command (`Backout`, `Commit`, `Continue`, `Enter`, or `Proceed`) was executing that would conflict with the `Restore` command. Wait for the executing System Update command to terminate or terminate it manually using the `Stop` command, and then try to execute the `Restore` command again.

662 Enter Arguments Page 1 was attempted to be displayed while the `Enter` command was executing. Since arguments for the `Enter` command cannot be changed, added, or deleted after the `Enter` command has begun its execution, the System Update menu page prevents the user from going to Enter Arguments Page 1 in case the user tries to change, add, or deleted `Enter` command line arguments.

663 Enter Arguments Page 2 was attempted to be displayed while the `Enter` command was executing. Since arguments for the `Enter` command cannot be changed, added, or deleted after the `Enter` command has begun its execution, the System Update menu page prevents the user from going to Enter Arguments Page 2 in case the user add, or deleted `Enter` command line arguments.

664 A double tape sequence was specified on Enter Arguments Page 2. But, a Corresponding disk to be updated was not previously specified for this sequence option. A disk must first be specified, then its corresponding tape sequence option may be specified.

665 After formatting the MML `Enter` input command line, not all the sequence options specified were included in the command line (the number of sequence options formatted into the command line did not match the number of sequence options that were specified). The counter that contains the number of sequence options specified may be damaged. Terminate the menu page using poke 750, bring up the menu page again using poke 107, and re-specify all the `Enter` command line arguments.

666 A triple tape sequence was specified on Enter Arguments Page 2. But, a corresponding disk to be updated was not previously specified for this sequence option. A disk must first be specified, then its corresponding tape sequence option may be specified.

667 After formatting the PDS `Enter` input command line, not all the sequence options specified were included in the command line (the number of sequence options formatted into the command line did not match the number of sequence options that were specified). The counter that contains the number of sequence options specified may be damaged. Terminate the menu page using poke 750, bring up the menu page again using poke 107, and re-specify all the `Enter` command line arguments.

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668 The backup partition method was attempting to be specified using the poke on Enter Arguments Page 1. But, a dfc preference was previously specified which is valid only for the offline disk method. If the backup partition method is still desired, delete the dfc preference that was specified and then re-specify the backup partition method.

669 The backup partition method was attempting to be specified using the poke on Enter Arguments Page 1. But, the update backup partition option was previously specified which is valid only for the offline disk method. If the backup partition method is still desired, delete the update backup partition option that was specified and then re-specify the backup partition method.

670 A single tape sequence was specified on Enter Arguments Page 2. But, a corresponding disk to be updated was not previously specified for this sequence option. A disk must first be specified, then its corresponding tape sequence option may be specified.

671 When executing the System Update `Enter` command using pokes on the System Update menu page, the log file must be either empty or non-existent. It may not contain log entries from a previous update session. In this case, the log file contains entries. Remove the log file and terminate the menu page. Bring up the menu page again and re-execute the `Enter` command.

6. Warning Messages

These warning messages are printed when an error occurs that may not affect the outcome of the update.

800 The function `sendpw()` failed when the menu page was sending DAP a message to display a message on the messages line of one of the menu page screens:

`SUPRPG` = System Update Menu Page
`ARGSPG1` = Enter Arguments Page 1
`ARGSPG2` = Enter Arguments Page 2

Look for the message on the ROP. The message was also printed there.

801 The menu page was trying to change a portion of a page either from normal video to reverse video or from reverse video to normal video. A bad video flag (VFLAG) specifying how to display the page (normal video or reverse video) was passed to the internal function `chgvideo()`.

802 The menu page was trying to send a message to DAP to change a portion of a page from normal video to reverse video when the `sendpw()` function failed.

803 The menu page was trying to send a message to DAP to change a portion of a page from reverse video to normal video when the `sendpw()` function failed.

804 The `sendpw()` function failed when a message was sent to DAP to blank out the messages line on one of the three System Update pages.

`SUPRPG` = System Update Menu Page
`ARGSPG1` = Enter Arguments Page 1
`ARGSPG2` = Enter Arguments Page 2

805 One of the Enter Arguments pages was displayed. The menu page found that the UCL argument was previously specified and tried to send a message to DAP to display a Y next to the UCL argument poke on Enter Arguments Page 1 to indicate that this argument has previously been specified. The sendpw() function failed when sending DAP this message. Try to specify the UCL argument using the poke on Enter Arguments Page 1.

806 An attempt was made to blank out the messages line of the Enter Arguments page that is currently being displayed in order to erase a message that may have previously been displayed. The variable that saves the page that is currently being displayed contains a bad value. The messages line of the current Enter Arguments page cannot be blanked out since it is unknown which Enter Arguments page is being displayed.

807 The application process completed and the variable Execcmd indicated that a System Update command is currently executing. The internal function chkexec() was executed to find the name of the System Update process that is currently executing. But, chkexec could not find the name of the process currently executing. Therefore, the execution message of the currently executing System Update process could not be re-displayed on the messages line of the System Update Menu Page.

808 The sendpw() function failed when sending a message to DAP to display the mount tape and continue message on the messages line of the System Update Menu Page. After mounting the tape, try to continue the update using the continue poke on the menu page.

809 The sendpw() function failed when sending a message to DAP to blank out a line in the display area of the System Update Menu Page.

810 The sendpw() function failed when sending a message to DAP to either blank out a previously specified invalid Enter command line argument from one of the Enter Arguments pages or draw an underline on one of the Enter Arguments pages to indicate where an argument is to be specified. If an argument was being blanked out, try to correct the invalid argument using the pokes on the appropriate Enter Arguments page. If an argument poke was specified, but the underline was not drawn where the argument is to be specified, type in the argument where the underline should have been drawn (the cursor should appear in the correct input area). The menu page should accept it.

811 When the poke corresponding to the Enter argument that indicates whether or not backup partitions are to be updated is specified, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the sendpw() function failed when sending the message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.

812 When the poke corresponding to the Enter argument that indicates whether or not backup partitions are to be updated is specified, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the Enter argument is specified, the cursor

is moved back up to the CMD< line so that the next Enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.

813 The `Readlog` command or the application command was executed while there may have been another System Update executing at the same time, or the `Stop` command was executed but completed unsuccessfully. When one of these three conditions occur, the execution message and the command line of the command that is currently executing is re-displayed since it was overwritten by the `Readlog`, `Stop`, or application message and command line. The internal variable `Execcmd` contains the poke menu number that corresponds to the executing command. In this case, `Execcmd` contained an invalid menu number. Therefore, the currently executing command and its execution message could not be displayed. This may not affect the outcome of the update (just the display on the menu page).

814 The `Enter` input command line was attempting to be re-displayed for one of three reasons:

1) The `readlog` command was executed while the `Enter` command was executing at the same time (when the `Readlog` process completes, the command line for the `Enter` command is re-displayed since the `Readlog` command line overwrote the `Enter` command line),

2) The `Stop` command was executed but completed unsuccessfully (since the `Stop` command line overwrote the `Enter` command line, the `Enter` command line is re-displayed since it is still executing), or

3) The application process was executed while the `Enter` command was executing at the same time (since the application command line overwrote the `Enter` command line, the `Enter` command line is re-displayed since it is still executing).

But, the `Enter` command line cannot be displayed because not all of the mandatory arguments can be found in the Enter Arguments structure. This may not affect the outcome of the update (just the display on the menu page).

815 After opening and reading the contents of the System Update log file, the log file is closed. But, the close failed. This should not affect the outcome of the update.

816 When the poke corresponding to the Enter argument that specifies a DFC (Disk File Controller), the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.

817 When the poke corresponding to the Enter argument that specified a DFC (Disk

File Controller), the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the Enter argument is specified, the cursor is moved back up to the CMD< line so that the next Enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.

`818` When the poke corresponding to the Enter argument that specifies a disk to be updated is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.

`819` When the poke corresponding to the Enter argument that specified a disk to be updated is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the Enter argument is specified, the cursor is moved back up to the CMD< line so that the next Enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.

`820` If a disk to be updated was not specified using a full pathname (starting with a slash '/'), the invalid disk pathname specified is blanked from the page. In order to do this, the indicator name corresponding to the disk menu number specified is needed (the menu page sends a message to DAP with this information and then DAP blanks out the appropriate argument). In this case, the indicator name corresponding to the disk menu number specified cannot be obtained and therefore the invalid disk pathname cannot be blanked out. Specify the valid disk pathname by typing the desired disk poke again and then typing the correct disk pathname in the input field indicated by the blinking cursor. If it is desired to not correct the invalid disk pathname, the invalid pathname displayed should not affect the update (the invalid disk pathname remains on the screen but is ignored by the menu page).

`821` The specified disk to be updated either does not exist or cannot be accessed for reading and/or writing, therefore, it is an invalid argument. The invalid disk specified was attempted to be blanked from the page. In order to do this, the indicator name corresponding to the disk menu number specified is needed (the menu page sends a message to DAP with this information and then DAP blanks out the appropriate argument). In this case, the indicator name corresponding to the disk menu number specified cannot be obtained and therefore the invalid disk pathname cannot be blanked out. Specify the valid disk pathname by typing the desired disk poke again and then typing the

correct disk pathname in the input field indicated by the blinking cursor. If it is desired to not correct the invalid disk pathname, the invalid pathname displayed should not affect the update (the invalid disk pathname remains on the screen but is ignored by the menu page).

822 When the poke corresponding to the Enter argument that specifies a disk to be updated is requested, an underline (the maximum length that the disk pathname can be) is drawn immediately after the poke number and its description to indicate where the disk argument is to be typed. The cursor is positioned at the beginning of the underline. Because of an internal error, this underline cannot be drawn. The cursor should still be positioned where the underline should have been drawn. This should not affect the outcome of the update. Go ahead and type in the disk pathname where is cursor is positioned.

823 When the poke corresponding to the Enter argument that specifies a sequence option is requested, an underline (the maximum length that the sequence option input can be) is drawn immediately after the poke number and its description to indicate where the sequence option argument is to be typed. The cursor is positioned at the beginning of the underline. Because of an internal error, this underline cannot be drawn. The cursor should still be positioned where the underline should have been drawn. This should not affect the outcome of the update. Go ahead and type in the sequence option argument where is cursor is positioned.

824 When the poke corresponding to the immediately following the poke and its description. An internal error prohibited the movement of the cursor. Use the arrow keys to move the cursor to the desired disk input field. An underline may have been drawn to indicate the appropriate input field. Then type the desired disk pathname.

825 When the poke corresponding to the Enter argument that specifies a sequence option is requested, the cursor is moved to the input field for that sequence option immediately following the poke and its description. An internal error prohibited the movement of the cursor. Use the arrow keys to move the cursor to the desired sequence option input field. An underline may have been drawn to indicate the appropriate input field. Then type the desired sequence option argument.

826 When the poke corresponding to the Enter argument that specifies an update method is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.

827 When the poke corresponding to the Enter argument that specified an update method is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the Enter argument is specified, the cursor is moved back up to the CMD< line so that the next Enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()`

function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.

828 When the poke corresponding to the Enter argument that specifies a sequence option is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending a cursor down message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.

829 When the poke corresponding to the Enter argument that specifies a sequence option is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending a cursor right message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.

830 When the poke corresponding to the Enter argument that specifies a sequence option is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the Enter argument is specified, the cursor is moved back up to the CMD< line so that the next Enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.

831 When the poke corresponding to the Enter argument that specifies a tape device is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.

832 When the poke corresponding to the Enter argument that specifies a tape device is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the Enter argument is specified, the cursor is moved back up to the CMD< line so that the next Enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.

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833 When the poke corresponding to the Enter argument that specifies conditional or unconditional execution is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.

834 When the poke corresponding to the Enter argument that specifies conditional or unconditional execution is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the Enter argument is specified, the cursor is moved back up to the CMD< line so that the next Enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.

835 When the `Enter` command is executed, the `Enter` command line is formatted to a form that is suitable for printing on the ROP. While formatting the `Enter` command line, the `malloc()` function is used to allocate space needed for the formatting procedures. The `malloc()` function failed. This should not affect the outcome of the update (the Enter command line that is executing just will not be displayed on the ROP).

836 When the `Enter` command is executed, the `Enter` command line is formatted to a form that is suitable for printing on the ROP. While formatting the Enter command line, the `realloc()` function is used to allocate space needed for the formatting procedures. The `realloc()` function failed. This should not affect the outcome of the update (the `Enter` command line that is executing just will not be displayed on the ROP).

837 The internal buffer array Buffer contains the input command line for the command that was last specified on the System Update menu page. In this case, the `Enter` command line should reside in the Buffer array since it was the last command specified. But, when the `Enter` command line was being formatted to a form that is suitable for displaying on the ROP, the Buffer array was found to contain all blanks. Since the `Enter` command cannot be found in the Buffer array, it cannot be formatted, and therefore cannot be displayed on the ROP. This should not affect the outcome of the update (the `Enter` command that is executing just will not be displayed on the ROP).

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ID . . . . . APP-SYSERR-A
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3, R21.17 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

System Error Code Numbers

Code(s)	Definition
1	Not super-user.
2	No such file or directory.
3	No such process.
4	Interrupted system call.
5	I/O error.
6	No such device or address.
7	Argument list too long.
8	Exec file format error.
9	Bad file number.
10	No children.
11	No more processes.
12	Not enough core.
13	Permission denied.
14	Bad address.
15	Block device required.
16	Mount device busy.
17	File exists.
18	Cross-device link.
19	No such device.
20	Not a directory.
21	Is a directory.
22	Invalid argument.
23	File table overflow.
24	Too many open files.
25	Not a typewriter.
26	Text file busy.
27	File too large.
28	No space left on device.
29	Illegal seek.
30	Read only file system.

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System Error Code Numbers *(continued)*

Code(s)	Definition
31	Too many links.
32	Broken pipe.
33	File is "temped."
34	Trap to lower execution level kernel process.
35	No message.
36	Not allocated.
37	Mount audit failure.
38	Mount umount failed due to current audit.
39	First access of logical block.
40	Fmove failed.
41	No extents.
42	Pathname too long.
43	No entries left.
44	Invalid operation.
45	Failure as a result of an audit.
46	Disk limp mode indication.
47	Unable to open `/dev/ecd`.
48	Conflict with current system status.
49-50	Not used at present.
51	Message type not recognized.
53	Library file doesn't exist.
54	All process slots in use (pstart fail).
55	Insufficient memory for kernel process.
56	All sde allocated or no swap space left.
57	Unable to read a pfile or a library file.
58	Segment too big for address space.
59	Can't add shared segment to process.
NOTE:	Some of the system error codes from 60 to 87 may be generated from either the process manager or fault recovery.
60	`FLTRCV`: Invalid emt value for this driver. `PMGR`: Incarnation count too big for one process.
61	`FLTRCV`: Iomap error.
62	`FLTRCV`: Hardware not oos or reserved. `PMGR`: Can't acquire PCB of terminating process.
63	`FLTRCV`: Not pseudo unit. `PMGR`: PMGR faulted, entered fault routine.

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System Error Code Numbers *(continued)*

Code(s)	Definition
64	FLTRCV: Pointer not valid.
	PMGR: NUB faulted, entered fault routine.
65	FLTRCV: No mate unit.
66	FLTRCV: Not a legitimate start UCB.
67	FLTRCV: Bad eqid entry.
	PMGR: Bad ACK resulting from copyseg OST.
68	FLTRCV: Bad search level entry.
	PMGR: Pfile (LDP output) doesn't exist.
69	FLTRCV: Could not find eqid unit.
70	FLTRCV: Unit not out of service.
	PMGR: Can't open dump file.
71	FLTRCV: Unit already reserved.
72	FLTRCV: No idle MDCT entry.
	PMGR: Can't get capability of working directory.
73	FLTRCV: Backup not available.
	PMGR: Unable to close a file.
74	FLTRCV: UCB type incorrect.
75	FLTRCV: Not a "cu" ucb.
76	FLTRCV: Invalid MCH order.
	PMGR: Message from unauthorized process.
77	FLTRCV: Pcpmd driver busy. Try again later.
	PMGR: Created process has segment index overlay.
78	FLTRCV: Micro-assist code in offline slave failed.
	PMGR: Unable to lock shared library in memory.
79	FLTRCV: Pointer not pointing to a ucb.
	PMGR: Shared library already locked in memory.
80	FLTRCV: Invalid pcpmd driver command.
	PMGR: The term. has already taken place (by proad).
81	FLTRCV: Can't fault the driver.
	PMGR: Pfile calls for PAS, no PAS in system.
82	FLTRCV: CONFIG fail return.
	PMGR: The fork request failed pcreate - super.
83	FLTRCV: Processor not duplexed.
	PMGR: Can't create because in disk limp mode.
84	FLTRCV: Mate processor not active.
	PMGR: Segid and index do not specify same module.

System Error Code Numbers *(continued)*

Code(s)	Definition
85	FLTRCV: Invalid argument. PMGR: Bad pcb index - when EMM index must be less than partition boundary.
86	FLTRCV: MCH hardware error. PMGR: Pfile does not specify pcb segment.
87	FLTRCV: Execmch function didn't process expected number of bytes. PMGR: An ack message was lost or delayed.
88	Kernel function returned fail.
89	Timeout on reading offline.
90	Error in online processor.
91	Failure in offline processor.
92	Is not same in both processors.
93	on-line master processor was specified.
94	Stop DMA routine failed.
95	Start DMA routine failed.
96	Unequipped UCB specified or accessed.
97	Not a top UCB.
98	No match found.
99	Bad tag value.
100	Offline CU MRFed.
101-119	Not used at present.
120	`lla_nsqrid` error.
121	`lla_rdget` error.
122	`lla_uprid` error.
123	`lla_opnsq` error.
124	`lla_attrid` error.
125	`lla_delete` error.
126	`lla_sinfo` error.
127	`lla_get` error.
128	`lla_gtrid` error.
129	Update bit not set.
NOTE:	The system error codes from 130 to 133 are available in Release 6 only.
130	The online CU RID was not provided for update.
131	No DMA RIDS under the CU.
132	Online parity error detected by cpblkp instruction.

System Error Code Numbers *(continued)*

Code(s)	Definition
133	Other store time out during update.
248	Tried to write in a file manager's protected file system.
249	The corresponding fields of an I/O message with duplication do not match.
250	The device being accessed is currently not active, but is equipped.
251	The device being accessed is in disk independent operation.
252	An I/O message type not recognized by the I/O driver.
253	The driver has temporarily failed to process this message; it will be retried.
254	The device has failed to perform the requested I/O. Retrying the I/O request will probably not succeed.

ID . . . . . APP-SYSERR-B
GENERIC . . . . . UNIX RTR R21.11 and R21.15
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

System Error Code Numbers

Code(s)	Definition
1	Not super-user.
2	No such file or directory.
3	No such process.
4	Interrupted system call.
5	I/O error.
6	No such device or address.
7	Argument list too long.
8	Exec file format error.
9	Bad file number.
10	No children.
11	No more processes.
12	Not enough core.
13	Permission denied.
14	Bad address.
15	Block device required.
16	Mount device busy.
17	File exists.
18	Cross-device link.
19	No such device.
20	Not a directory.
21	Is a directory.
22	Invalid argument.
23	File table overflow.
24	Too many open files.
25	Not a typewriter.
26	Text file busy.
27	File too large.
28	No space left on device.
29	Illegal seek.
30	Read only file system.

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System Error Code Numbers *(continued)*

Code(s)	Definition
31	Too many links.
32	Broken pipe.
33	File is "temped."
34	Trap to lower execution level kernel process.
35	No message.
36	Not allocated.
37	Mount audit failure.
38	Mount umount failed due to current audit.
39	First access of logical block.
40	Fmove failed.
41	No extents.
42	Pathname too long.
43	No entries left.
44	Invalid operation.
45	Failure as a result of an audit.
46	Disk limp mode indication.
47	Unable to open `/dev/ecd`.
48	Conflict with current system status.
49-50	Not used at present.
51	Message type not recognized.
53	Library file doesn't exist.
54	All process slots in use (pstart fail).
55	Insufficient memory for kernel process.
56	All sde allocated or no swap space left.
57	Unable to read a pfile or a library file.
58	Segment too big for address space.
59	Can't add shared segment to process.
NOTE:	Some of the system error codes from 60 to 87 may be generated from either the process manager or fault recovery.
60	`FLTRCV`: Invalid emt value for this driver. `PMGR`: Incarnation count too big for one process.
61	`FLTRCV`: Iomap error.
62	`FLTRCV`: Hardware not oos or reserved. `PMGR`: Can't acquire PCB of terminating process.
63	`FLTRCV`: Not pseudo unit. `PMGR`: PMGR faulted, entered fault routine.

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System Error Code Numbers *(continued)*

Code(s)	Definition
64	FLTRCV: Pointer not valid. PMGR: NUB faulted, entered fault routine.
65	FLTRCV: No mate unit.
66	FLTRCV: Not a legitimate start UCB.
67	FLTRCV: Bad eqid entry. PMGR: Bad ACK resulting from copyseg OST.
68	FLTRCV: Bad search level entry. PMGR: Pfile (LDP output) doesn't exist.
69	FLTRCV: Could not find eqid unit.
70	FLTRCV: Unit not out of service. PMGR: Can't open dump file.
71	FLTRCV: Unit already reserved.
72	FLTRCV: No idle MDCT entry. PMGR: Can't get capability of working directory.
73	FLTRCV: Backup not available. PMGR: Unable to close a file.
74	FLTRCV: UCB type incorrect.
75	FLTRCV: Not a "cu" ucb.
76	FLTRCV: Invalid MCH order. PMGR: Message from unauthorized process.
77	FLTRCV: Pcpmd driver busy. Try again later. PMGR: Created process has segment index overlay.
78	FLTRCV: Micro-assist code in offline slave failed. PMGR: Unable to lock shared library in memory.
79	FLTRCV: Pointer not pointing to a ucb. PMGR: Shared library already locked in memory.
80	FLTRCV: Invalid pcpmd driver command. PMGR: The term. has already taken place (by proad).
81	FLTRCV: Can't fault the driver. PMGR: Pfile calls for PAS, no PAS in system.
82	FLTRCV: CONFIG fail return. PMGR: The fork request failed pcreate - super.
83	FLTRCV: Processor not duplexed. PMGR: Can't create because in disk limp mode.
84	FLTRCV: Mate processor not active. PMGR: Segid and index do not specify same module.

System Error Code Numbers *(continued)*

Code(s)	Definition
85	FLTRCV: Invalid argument. PMGR: Bad pcb index - when EMM index must be less than partition boundary.
86	FLTRCV: MCH hardware error. PMGR: Pfile does not specify pcb segment.
87	FLTRCV: Execmch function didn't process expected number of bytes. PMGR: An ack message was lost or delayed.
88	Kernel function returned fail.
89	Timeout on reading offline.
90	Error in online processor.
91	Failure in offline processor.
92	Is not same in both processors.
93	on-line master processor was specified.
94	Stop DMA routine failed.
95	Start DMA routine failed.
96	Unequipped UCB specified or accessed.
97	Not a top UCB.
98	No match found.
99	Bad tag value.
100	Offline CU MRFed.
101-119	Not used at present.
120	`lla_nsqrid` error.
121	`lla_rdget` error.
122	`lla_uprid` error.
123	`lla_opnsq` error.
124	`lla_attrid` error.
125	`lla_delete` error.
126	`lla_sinfo` error.
127	`lla_get` error.
128	`lla_gtrid` error.
129	Update bit not set.
NOTE:	The system error codes from 130 to 133 are available in Release 6 only.
130	The online CU RID was not provided for update.
131	No DMA RIDS under the CU.
132	Online parity error detected by cpblkp instruction.

System Error Code Numbers *(continued)*

Code(s)	Definition
133	Other store time out during update.
248	Tried to write in a file manager's protected file system.
249	The corresponding fields of an I/O message with duplication do not match.
250	The device being accessed is currently not active, but is equipped.
251	The device being accessed is in disk independent operation.
252	An I/O message type not recognized by the I/O driver.
253	The driver has temporarily failed to process this message; it will be retried.
254	The device has failed to perform the requested I/O. Retrying the I/O request will probably not succeed.

ID . . . . . APP-TAPE-LIB
GENERIC . . . . . UNIX RTR R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . MAINT

TAPE LIBRARY ERROR APPENDIX

This appendix contains the error codes returned by the functions in the tape library.

-1 E_CLOSE	The close() system call failed. Could not close the tape special device file.
-2 E_INVALTP	Invalid tape special device file input argument.
-3 E_INVALSES	Invalid session input argument.
-4 E_INVALVOL	Invalid volume input argument.
-5 E_LSEEK	The lseek() system call failed.
-6 E_MKNOD	The mknod() system call failed. Could not create a temporary tape special device file.
-7 E_NOMULVOL	Data read is not in multi-volume format.
-8 E_NOSESSION	Specified session is not on tape.
-9 E_NOVOLUME	Specified volume is not on tape.
-10 E_OPENNORWD	The open() system call failed. Could not open the no-rewind tape special device file.
-11 E_OPENRWD	The open() system call failed. Could not open the rewind tape special device file.
-12 E_READ	The read() system call failed. Could not read tape header.
-13 E_SESORDER	Multi-volume tape sessions are not sequential.
-14 E_SETIO	The setio() system call failed.
-15 E_STAT	The stat() system call failed for the tape special device file.
-16 E_UNLINK	The unlink() system call failed. Could not remove the temporary tape special device file.
-17 E_VOLORDER	Multi-volume tape volumes are not in ascending order.

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ID . . . . . APP-UTIL-ID-A
GENERIC . . . . . UNIX RTR R1.5, R6.4, R21.3 and R21.11
TYPE . . . . . Output
MESSAGE CLASS . . UTIL

UTILITY ID

NOTE: These UIDs are in hexadecimal notation.

UID	3B NAME	DESCRIPTION
0x0004	/bootfiles/fmprc	file manager
0x0005	/bootfiles/3bpmgr	3B process manager
0x0008	/bootfiles/3bnub	the kernel
0x000f	/prc/cdi	memory driver
0x0010	/bin/getty	set terminal type, modes, speed, and line
0x0011	/prc/unix	UNIX® initialization process
0x0012	/etc/login	sign on
0x0013	/bin/sh	shell, the standard command
0x0014	/etc/update	updates file system every 5 minutes
0x0015	/etc/cron	task scheduler
0x0016	/prc/pkillp	supervisor process to kill other processes
0x0017	/prc/fda	FIFO driver
0x0018	/etc/clrfs	constructs file system
0x0019	/etc/clri	clear inodes
0x001a	/bin/df	report number of free disk blocks
0x001b	/etc/dgnnm	assigns diagnostic file name
0x001c	/etc/fsdb	file system debugger
0x001d	/etc/ichk	file system consistency check
0x001f	/etc/mknod	builds a special file
0x0020	/mount	mounts file system
0x0021	/bin/ps	report process status
0x0022	/etc/udgnnm	generates the file set up by dgnnm
0x0023	/etc/umount	unmounts file system
0x0024	/etc/vcp	volume disk copy process
0x0041	/prc/cdn	ECD manager
0x0042	/diag/dgnc/mira	maintenance input request administrator

UID	3B NAME	DESCRIPTION
0x0043	/cft/shl/cmds/STOP/DMQ	stop diagnostics
0x0044	/cft/shl/cmds/ALW/DMQ	allow diagnostics
0x0045	/cft/shl/cmds/DGN	diagnose hardware unit
0x0046	/cft/shl/cmds1/EX	PDS interactive diagnostic
0x0047	/cft/shl/cmds/INH/DMQ	inhibit diagnostic maintenance
0x0048	/cft/shl/cmds /EX/LDPARM	PDS interactive diagnostic control command
0x0049	/cft/shl/cmds/EX/LOOP	PDS interactive diagnostic control command
0x004a	/cft/shl/cmds/EX/PAUSE	PDS interactive diagnostic control command
0x004b	/cft/shl/cmds/RMV	remove hardware unit
0x004c	/cft/shl/cmds/RST	restore hardware unit
0x004d	/cft/shl/cmds/OP/DMQ	status of diagnostic maintenance
0x004e	/cft/shl/cmds/EX/STEP	PDS interactive diagnostic control command
0x004f	/cft/shl/cmds/EX/STOP	PDS interactive diagnostic control command
0x005f	/diag/dgnc/inhtimer	inhibit diagnostic timer
0x0060	/diag/dgnc/ppdiamon	peripheral diagnostic monitor
0x0062	/diag/dgnc/tlp	trouble location process
0x0063	/diag/dgnc/dfdiag	DFC diagnostics control
0x0064	/diag/dgnc/iodiag	I/O diagnostics control
0x0065	/diag/dgnc/iormv	I/O diagnostics remove process
0x0066	/diag/dgnc/dfrmv	remove process for DFC
0x0067	/diag/dgnc/cudiagc	control unit diagnostics
0x006c	/diag/dgnc/dgntimer	diagnostic timer
0x0082	/prc/cdm	kernel interface hardware user processes
0x0083	/bootfiles/eih	error interrupt handler
0x0084	/cft/misc/rmf	prints error messages and postmortem dumps
0x0085	/bootfiles/pcpaud.g	PCP audit
0x0086	/bootfiles/inhadm	inhibit administration process
0x0087	/etc/adp.af	automatic diagnostic process after fault process
0x0088	/cft/shl/cmds /OP/CFGSTAT	output device status or configuration status
0x008a	/etc/fsmon	file system overflow monitor
0x008b	/prc/ularp	UNIX®-level automatic restart process
0x008f	/etc/adp.ab	automatic diagnostic process after boot branch

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UID	3B NAME	DESCRIPTION
0x0090	/cft/shl/cmds/ALW/REX	allow routine exerciser
0x0091	/cft/shl/cmds/INH/REX	inhibit REX on a specified unit
0x0092	/cft/shl/cmds /OP/REXINH	output REX inhibited units
0x0093	/cft/shl/cmds /ALW/CONFLOG	allow configuration log
0x0094	/cft/shl/cmds /INH/ERRCHK	inhibit errint, errsrc, hdwchk and sftchk
0x0095	/cft/shl/cmds /INH/CONFLOG	inhibit configuration log
0x0096	/cft/shl/cmds/SW/CU	switch control units
0x0097	/unixutil/cu/curstrmv	CU restore or remove process
0x0098	/cft/shl/cmds /DUMP/CACHE	dump off-line cache into memory
0x0099	/cft/shl/cmds /OP/MEMERRS	formatted memory error summary
0x00c0	/prc/bdf	IOP driver process
0x00c0	/prc/bdf	IOP driver process
0x00c0	/prc/bdf	IOP driver process
0x00c1	/bootfiles/dkdrv	disk driver
0x00c2	/prc/scsd	SCSD driver
0x00c4	/prc/s_update	disk restore
0x00c9	/cft/shl/cmds/CMPR/MHD	compare moving head disks
0x00ca	/prc/s_dskutil	disk compare
0x00cd	/cft/shl/cmds /OP/MHD/INFO	display moving head disk information
0x00ce	/cft/shl/cmds/INIT/MHD	initialize a moving head driver
0x00ce	/cft/shl/cmds /LOAD/DFC/PUMP	download pumpcode to DFC RAM
0x00cf	/cft/shl/cmds /OP/DFCELOG	dump error log
0x00d0	/cft/shl/cmds /SET/IODRV	sets I/O driver options
0x00d1	/cft/shl/cmds/OP/IODRV	display active I/O driver options
0x00d2	/cft/shl/cmds /SW/PORTSW	port switch
0x00d3	/cft/shl/cmds/ALW/SCSD	allows SCSD points and signal

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UID	3B NAME	DESCRIPTION
0x00d3	/cft/shl/cmds /RESET/FANALM	reset fan alarm
0x00d4	/cft/shl/cmds/INH/SCSD	inhibits SCSD function
0x00d5	/cft/shl/cmds/OP/SCSD	display SCSD points
0x00d6	/cft/shl/cmds/ORD/SCSD	set, clear, or flash points
0x00d7	/cft/shl/cmds /DUMP/MHD/VTOC	dumps volume table of contents
0x00d8	/cft/shl/cmds /DUMP/MHD/DEFECT	dumps defect tables
0x00d8	/cft/shl/cmds /LOAD/MHD/DEFECT	loads a defect table
0x00d9	/cft/shl/cmds /DUMP/MHD/BLOCK	dumps a disk block
0x00da	/cft/dap/dkdip	display disk configuration and status
0x0102	/usr/bin/perform	a parser for ucm
0x0102	/cft/shl/cmds1/UPD	invokes a field update action
0x0103	/prc/prchk	tests whether the target process can be reclaimed
0x0104	/prc/dufr	overwrites memory image of non-killable process
0x0105	/prc/kop	overwrites the tv segment
0x0106	/usr/bin/idump	displays information of COFF and tracking problems
0x0106	/prc/oild	creates a new updateable object file
0x0107	/prc/ogen	creates a file to be used by oild and dufr
0x0109	/prc/bldboot	creates boot image
0x010b	/prc/cdcmpr	compares text segments of disk and core image
0x0111	/prc/gspovmon	overload monitor for GRASP
0x0112	/prc/gspac	controls execution of generic access package (GRASP)
0x0113	/cft/shl/cmds/OP/UTIL	lists GRASP breakpoints, status and trace
0x0114	/prc/gspop	outputs GRASP messages

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UID	3B NAME	DESCRIPTION
0x0117	/prc/pldmon	updates maintenance times in all PMDB maintenance records
0x011d	/etc/mkdsk	make disk
0x011e	/bin/isgen	builds boot image on disk
0x011f	/usr/bin/browse	tool for examining data base
0x0121	/usr/bin/sdpcopy	copies data base files
0x0124	/prc/kopf	times for automatic backout using kop
0x0125	/cft/shl/cmds /IN/REMOTE	monitors SCANS-2 file receive process
0x012b	/prc/bwmint	interface for field update session
0x012d	/prc/filerecv	receives and assembles transmitted files
0x012e	/prc/bwmclr	clear BWM from the field update directory
0x012f	/prc/bwmvfy	verifies check sums
0x0132	/usr/bin/pl_aux	data dictionary for the plant measurements database
0x0133	/usr/bin/ibrowse	active process debugger
0x0134	/usr/bin/lla_audits	audits ECD
0x0162	/cft/shl/cmds/VFY/TAPE	invoke tape verification process
0x0163	/audprc/pmsaud	audits plant measurements database
0x0185	/cft/shl/cmds/OP/FNAME	audit command process
0x0186	/prc/klmon	kernel monitoring process
0x0187	/bootfiles/simprc	system integrity monitor
0x0188	/prc/suovprc	supervisor / user lockout monitor
0x0190	/etc/sdlrtc	synchronous data link restore tool
0x0191	/etc/sdlrtn	synchronous data link restore tool
0x0192	/prc/fsaudit	file system audit
0x01a2	/audprc/ecdaud	ECD audits
0x01c4	/prc/cdq	communicates with spy processes
0x01c5	/bin/cmpr	compares text segments of disk and core image
0x01c6	/prc/ftrc	function trace
0x01c7	/prc/ucm	field update controller
0x01da	/prc/fudisplay	displays specified update or BWM records
0x01db	/prc/fupurge	removes records of official and reclaimed BWMs

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UID	3B NAME	DESCRIPTION
0x01dc	/prc/fuomit	omits incomplete update records
0x01dd	/usr/bin/fu_aux	field update database generator
0x0200	/bin/errport	errport user process
0x0202	/cft/dap/cia	critical indicators administrator
0x0203	/cft/dap/dap	display administration process
0x0204	/cft/dap/poker	DAP input process
0x0206	/cft/rts	initialize RTS and receive messages
0x0207	/bin/shlgetty	starts craft shells
0x0208	/cft/bin/cftshl	craftshell
0x0208	/cft/bin/cftshlA	craftshell (without initialization message)
0x0209	/cft/spl/csop	craft spooler out process
0x020b	/cft/spl/sop	spooler output process
0x020d	/bin/cdgetty	starts poker
0x020f	/bin/splgetty	starts spooler
0x0210	/cft/dap/inph	test process for DAP
0x0211	/cft/dap/msgh	test process for DAP
0x0211	/etc/rex	routine diagostic exerciser
0x0212	/etc/ccdate	identify source version of code
0x0214	/cft/shl/cmds/OP/LOG	prints log file entries
0x0216	/cft/dap/starter	start reader on C/D input
0x0217	/cft/shl/cmds1/TST	test command for pdshl
0x0218	/prc/bdg	DAP driver
0x0218	/cft/bin/csdip	craft spooler dialog input process
0x0219	/cft/dap/fmctrl	runs 105 and 106 pages
0x021b	/bin/ciagetty	starts cia process
0x021d	/cft/misc/rpttime	time stamp for log files
0x021e	/cft/shl/cmds /CLR/IMCAT	clears imcatlog from core
0x0220	/bin/dlggetty	starts dialog shell
0x0221	/cft/shl/cmds/DLGAUTH	dialog authority file commands
0x0222	/cft/shl/cmds/VFYAUTH	checks authority file
0x0223	/cft/bin/Adlgshl	asynchronous dialog shell
0x0224	/cft/bin/Sdlgshl	synchronous dialog shell
0x0226	/cft/shl/cmds/CLK	sets or prints system clock
0x0227	/cft/shl/cmds/UPD/OMDB	output messages data base

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UID	3B NAME	DESCRIPTION
0x0228	/cft/shl/cmds /CLR/ACKDB	acknowledgements data base
0x0241	/bin/banner	prints a banner
0x0242	/bin/pkill	creates a process to kill other processes
0x0243	/bin/pkillp	kills processes executing under pathname
0x0245	/bin/cat	lists and concatenates UNIX® files
0x0246	/bin/chgrp	change group
0x0247	/bin/chmod	change mode of file
0x0248	/bin/chown	change owner of file
0x0249	/bin/cmp	compare two files
0x024b	/bin/cpio	format of cpio archive
0x024c	/bin/cx	core image debugger
0x024d	/bin/crypt	generate encryption file
0x024e	/bin/date	print and set the date
0x024f	/bin/dd	convert and copy a file
0x0250	/bin/diff	differential file comparator
0x0251	/bin/dlsum	sum bytes in field mode
0x0252	/bin/du	summarize disk usage
0x0253	/bin/echo	repeat string
0x0254	/bin/ed	line editor
0x0255	/bin/env	set environment for command execution
0x0256	/bin/expr	evaluate arguments as an expression
0x0257	/bin/falloc	allocate space for an external file
0x0258	/bin/fgrep	search a file for a pattern
0x0259	/bin/find	find files
0x025a	/bin/fmove	move file into contiguous space
0x025b	/bin/fsize	prints size of files
0x025c	/bin/grep	search a file for a pattern
0x025e	/bin/id	print user, group, fair share group IDs and names
0x025f	/bin/kill	send a signal to a process or a group of processes
0x0260	/bin/killp	kill user processes using a full pathname
0x0263	/bin/line	read one line

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UID	3B NAME	DESCRIPTION
0x0264	/bin/ln	link files
0x0265	/bin/logdir	get login directory
0x0266	/bin/ls	list contents of directory
0x0267	/bin/cp	copy files
0x0267	/bin/mv	move a file
0x0268	/bin/mail	send mail to users or read mail
0x0269	/usr/lib/makekey	generates encryption key
0x026a	/bin/mesg	permit or deny messages
0x026b	/bin/mkdir	make a directory
0x026c	/usr/bin/mop	mount off-line partition
0x026d	/bin/closewd	close window
0x026d	/bin/newgrp	log in to a new group
0x026e	/bin/news	print news items
0x026e	/bin/openwd	open window
0x026f	/bin/nice	change priority of a process
0x0270	/bin/nohup	run a command immune to hangups and quits
0x0271	/bin/od	octal dump
0x0272	/bin/passwd	user information file
0x0273	/bin/pio	I/O to a traced process image
0x0274	/bin/pr	print files
0x027a	/bin/pwd	print working directory name or path
0x027b	/bin/rm	remove files
0x027c	/bin/rmdir	remove directories
0x027e	/bin/run	run kernel processes
0x027f	/bin/sdiff	side-by-side difference program
0x0280	/bin/sleep	suspend execution for interval
0x0281	/bin/sort	sort and/or merge files
0x0282	/bin/split	split a file into pieces
0x0283	/bin/stat	get file status
0x0284	/bin/stty	set the options for a terminal
0x0285	/bin/su	change user ID
0x0286	/bin/sum	print checksum and block count of a file
0x0288	/bin/sync	update super-block
0x0289	/bin/tail	deliver the last part of a file
0x028a	/bin/tee	pipe fitting

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UID	3B NAME	DESCRIPTION
0x028b	/bin/time	get time
0x028c	/bin/touch	update access and modification times of a file
0x028d	/bin/tty	terminal device interface
0x028e	/bin/uname	print name of current system
0x028f	/bin/wc	word count
0x0290	/bin/who	who is on the system
0x0291	/bin/write	write on a terminal
0x0292	/bin/sed	stream editor
0x0293	/usr/bin/asa	interpret the asa control character
0x02c0	/cft/shl/cmds /COPY/ACTDISK	copies a file to an OOS disk
0x02c1	/prc/mntfs	mounts file systems in an OOS disk
0x02c3	/usr/bin/PDSed	PDS editor
0x02c4	/cft/shl/cmds /ALW/FILESYS	file system maintenance
0x02c5	/prc/pmdbcopy	copies plant measurements database from core to disk
0x02c6	/cft/shl/cmds/OP/PMCR	invokes pmcrman
0x02c7	/prc/pmcrcol	updates common records
0x02c8	/prc/pmcrrep	generates PMS reports
0x02c9	/prc/pmcrman	process that controls execution of pmcrcol and pmcrrep
0x02ca	/prc/cpspdisk	copies a file to a spool disk
0x02cb	/prc/cpoosf	copies a file from an OOS disk
0x02cc	/cft/shl/cmds /COPY/CPSPDISK	invokes cpspdisk
0x02cd	/cft/shl/cmds /COPY/CPOOSF	invokes cpoosf
0x02ce	/cft/shl/cmds/CLR/PTN	invokes clearptn
0x02d0	/usr/bin/chk_pmdb	checks plant measurements database against ecd database.
0x02cf	/prc/clearptn	clears out a partition
0x02d5	/bin/urun	run user process
0x02d6	/prc/3btpwrt	writes disk image to tape in LDFT format
0x02d7	/cft/shl/cmds /COPY/BKDSK/ACK	invokes tpack
0x02d8	/cft/shl/cmds /STOP/BKDISK	stops the physical disk to tape writer

UID	3B NAME	DESCRIPTION
0x02d9	/cft/shl/cmds /COPY/BKDSK/START	invokes 3btpwrt
0x02da	/prc/tpack	acknowledge 3btpwrt that a tape is mounted
0x02db	/prc/tpstop	stop execution of 3btpwrt
0x02dc	/prc/supr/continue	restarts execution of a system update
0x02dc	/cft/shl/cmds /UPD/GEN/CONTINUE	invoke continue process
0x02dd	/prc/supr/applhook	application process used during system update
0x02de	/prc/supr/readlog	requests output of system update event log
0x02e0	/cft/shl/cmds /UPD/GEN/BACKOUT	invoke backout process
0x02e1	/cft/shl/cmds /UPD/GEN/COMMIT	invoke commit process
0x02e2	/cft/shl/cmds /UPD/GEN/ENTER	invoke enter process
0x02e3	/cft/shl/cmds /UPD/GEN/PROCEED	invoke proceed process
0x02e4	/cft/shl/cmds /OP/GEN/READLOG	invokes readlog
0x02e5	/cft/shl/cmds /UPD/GEN/RESTORE	invoke restore process
0x02e6	/cft/shl/cmds/STOP/GEN	invokes stop process
0x02e7	/prc/supr/stop	stops the system update command in process
0x02e8	/prc/supr/commit	overwrites old generic with new generic
0x02e9	/prc/supr/restore	restores the old generic to the system
0x02e9	/etc/mkstart	make disk acknowledgment program
0x02ea	/prc/supr/backout	backs out of new generic to old generic
0x02eb	/prc/supr/enter	system update process
0x02ec	/prc/supr/proceed	prepares system for booting from the new generic
0x02ed	/bin/prtcp	copies primary/backup partition
0x02ee	/prc/supr/suprint	invoke a system update process
0x02ef	/prc/supr/applproc	application process
0x02f0	/cft/shl/cmds /UPD/GEN/APPLPROC	invoke an application process

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UID	3B NAME	DESCRIPTION
0x0301	/usr/bin/loadf3b	creates a flatfile from a <> file
0x0302	/bin/sdfinfo	special device file information
0x0303	/prc/psm	power switch monitor
0x0304	/bin/sdfrel	special device file release
0x0307	/cft/shl/cmds/RCV/MENU	DB recent change menu
0x0309	/usr/bin/createecd	creates skeleton of ECD database
0x030a	/usr/bin/rcvecd	recent change and verify ECD from UNIX® terminal
0x030b	/bin/ducb	display UCB in ECD
0x030f	/usr/bin/comparedb	compare databases
0x0310	/usr/bin/fdiff	file differences
0x0311	/usr/bin/keycmp	key compare
0x0312	/usr/bin/keycomm	key common program
0x0313	/usr/bin/keys	keys program
0x0314	/usr/bin/newdb	create a new database
0x0315	/usr/bin/printdb	print database
0x0316	/usr/bin/printfrm	print forms
0x031e	/cft/shl/cmds /RCV/DMTECD	recent change and verify interface for ECD
0x0320	/cft/shl/cmds/OP/ULARP	ularp request processor
0x0322	/cft/shl/cmds/STOP/AUD	audit stop process
0x0323	/cft/shl/cmds/ALW/AUD	allow audit
0x0324	/cft/shl/cmds/AUD	begin audit process
0x0325	/etc/siof	system integrity output formatter
0x0326	/cft/shl/cmds/INH/AUD	audit inhibitor
0x0327	/cft/shl/cmds/OP/AUD	audit report generator
0x032a	/cft/shl/cmds /CLR/EMERDMP	emergency dump
0x032b	/cft/shl/cmds /OP/EMERSTAT	emergency status
0x032c	/etc/op_stat	audit status process
0x032d	/cft/shl/cmds /OP/AUDERR	audit error process
0x032e	/cft/shl/cmds /INIT/ULARP	craft initialization to SIM

UID	3B NAME	DESCRIPTION
0x0334	/cft/shl/cmds/VFY/FILE	verify file
0x0360	/usr/bin/createsg	creates skeleton of SG database
0x0361	/usr/bin/rcvsg	recent change and verify SG from UNIX® terminal
0x0362	/usr/bin/rcvecdmcrt	recent change and verify ECD from MCRT
0x0363	/usr/bin/rcvsgmcrt	recent change and verify SG from MCRT
0x0364	/cft/shl/cmds /RCV/DMTSG	recent change and verify interface for SG
0x0365	/usr/bin/vfydflt	perform default file verification via vfydflt
0x0366	/usr/bin/iopadd.p	addition of IOP
0x0366	/usr/bin/iopdel.p	deletion of IOP
0x0366	/usr/bin/links.p	review linkage orders
0x0366	/usr/bin/mtadd.p	addition of maintenance terminal
0x0366	/usr/bin/mtcadd.p	addition of maintenance terminal controller
0x0366	/usr/bin/mtcdel.p	deletion of maintenance terminal controller
0x0366	/usr/bin/mtdel.p	deletion of maintenance terminal controller
0x0366	/usr/bin/sdladd.p	addition of SCANS distributor linkage
0x0366	/usr/bin/sdlcadd.p	addition of SCANS distributor linkage controller
0x0366	/usr/bin/sdlcdel.p	deletion of SCANS distributor linkage controller
0x0366	/usr/bin/sdldel.p	deletion of SCANS distributor linkage
0x0366	/usr/bin/slots.p	review slot assignments on UCB
0x0366	/usr/bin/ttyadd.p	addition of tty
0x0366	/usr/bin/ttycadd.p	addition of ttyc
0x0366	/usr/bin/ttycdel.p	deletion of ttyc
0x0366	/usr/bin/ttydel.p	deletion of tty
0x0366	/usr/bin/vfydflt.p	perform vfydflt process
0x0379	/bin/rmtgetty	remote dialog shell

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ID . . . . . APP-UTIL-ID-B
GENERIC . . . . . UNIX RTR R21.15 and later
TYPE . . . . . Output
MESSAGE CLASS . . UTIL

UTILITY ID

NOTE: These UIDs are in hexadecimal notation.

UID	3B NAME	DESCRIPTION
0x0004	/bootfiles/fmprc	file manager
0x0005	/bootfiles/3bpmgr	3B process manager
0x0008	/bootfiles/3bnub	the kernel
0x000f	/prc/cdi	memory driver
0x0010	/bin/getty	set terminal type, modes, speed, and line
0x0011	/prc/unix	UNIX® initialization process
0x0012	/etc/login	sign on
0x0013	/bin/sh	shell, the standard command
0x0014	/etc/update	updates file system every 5 minutes
0x0015	/etc/cron	task scheduler
0x0016	/prc/pkillp	supervisor process to kill other processes
0x0017	/prc/fda	FIFO driver
0x0018	/etc/clrfs	constructs file system
0x0019	/etc/clri	clear inodes
0x001a	/bin/df	report number of free disk blocks
0x001b	/etc/dgnnm	assigns diagnostic file name
0x001c	/etc/fsdb	file system debugger
0x001d	/etc/ichk	file system consistency check
0x001f	/etc/mknod	builds a special file
0x0020	/mount	mounts file system
0x0021	/bin/ps	report process status
0x0022	/etc/udgnnm	generates the file set up by dgnnm
0x0023	/etc/umount	unmounts file system
0x0024	/etc/vcp	volume disk copy process
0x0041	/prc/cdn	ECD manager
0x0042	/diag/dgnc/mira	maintenance input request administrator

UID	3B NAME	DESCRIPTION
0x0043	/cft/shl/cmds/STOP/DMQ	stop diagnostics
0x0044	/cft/shl/cmds/ALW/DMQ	allow diagnostics
0x0045	/cft/shl/cmds/DGN	diagnose hardware unit
0x0046	/cft/shl/cmds1/EX	PDS interactive diagnostic
0x0047	/cft/shl/cmds/INH/DMQ	inhibit diagnostic maintenance
0x0048	/cft/shl/cmds /EX/LDPARM	PDS interactive diagnostic control command
0x0049	/cft/shl/cmds/EX/LOOP	PDS interactive diagnostic control command
0x004a	/cft/shl/cmds/EX/PAUSE	PDS interactive diagnostic control command
0x004b	/cft/shl/cmds/RMV	remove hardware unit
0x004c	/cft/shl/cmds/RST	restore hardware unit
0x004d	/cft/shl/cmds/OP/DMQ	status of diagnostic maintenance
0x004e	/cft/shl/cmds/EX/STEP	PDS interactive diagnostic control command
0x004f	/cft/shl/cmds/EX/STOP	PDS interactive diagnostic control command
0x005f	/diag/dgnc/inhtimer	inhibit diagnostic timer
0x0060	/diag/dgnc/ppdiamon	peripheral diagnostic monitor
0x0062	/diag/dgnc/tlp	trouble location process
0x0063	/diag/dgnc/dfdiag	DFC diagnostics control
0x0064	/diag/dgnc/iodiag	I/O diagnostics control
0x0065	/diag/dgnc/iormv	I/O diagnostics remove process
0x0066	/diag/dgnc/dfrmv	remove process for DFC
0x0067	/diag/dgnc/cudiagc	control unit diagnostics
0x006c	/diag/dgnc/dgntimer	diagnostic timer
0x0082	/prc/cdm	kernel interface hardware user processes
0x0083	/bootfiles/eih	error interrupt handler
0x0084	/cft/misc/rmf	prints error messages and postmortem dumps
0x0085	/bootfiles/pcpaud.g	PCP audit
0x0086	/bootfiles/inhadm	inhibit administration process
0x0087	/etc/adp.af	automatic diagnostic process after fault process
0x0088	/cft/shl/cmds /OP/CFGSTAT	output device status or configuration status
0x008a	/etc/fsmon	file system overflow monitor
0x008b	/prc/ularp	UNIX®-level automatic restart process
0x008f	/etc/adp.ab	automatic diagnostic process after boot branch

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UID	3B NAME	DESCRIPTION
0x0090	/cft/shl/cmds/ALW/REX	allow routine exerciser
0x0091	/cft/shl/cmds/INH/REX	inhibit REX on a specified unit
0x0092	/cft/shl/cmds /OP/REXINH	output REX inhibited units
0x0093	/cft/shl/cmds /ALW/CONFLOG	allow configuration log
0x0094	/cft/shl/cmds /INH/ERRCHK	inhibit errint, errsrc, hdwchk and sftchk
0x0095	/cft/shl/cmds /INH/CONFLOG	inhibit configuration log
0x0096	/cft/shl/cmds/SW/CU	switch control units
0x0097	/unixutil/cu/curstrmv	CU restore or remove process
0x0098	/cft/shl/cmds /DUMP/CACHE	dump off-line cache into memory
0x0099	/cft/shl/cmds /OP/MEMERRS	formatted memory error summary
0x00c0	/prc/bdf	IOP driver process
0x00c0	/prc/bdf	IOP driver process
0x00c0	/prc/bdf	IOP driver process
0x00c1	/bootfiles/dkdrv	disk driver
0x00c2	/prc/scsd	SCSD driver
0x00c4	/prc/s_update	disk restore
0x00c9	/cft/shl/cmds/CMPR/MHD	compare moving head disks
0x00ca	/prc/s_dskutil	disk compare
0x00cd	/cft/shl/cmds /OP/MHD/INFO	display moving head disk information
0x00ce	/cft/shl/cmds/INIT/MHD	initialize a moving head driver
0x00ce	/cft/shl/cmds /LOAD/DFC/PUMP	download pumpcode to DFC RAM
0x00cf	/cft/shl/cmds /OP/DFCELOG	dump error log
0x00d0	/cft/shl/cmds /SET/IODRV	sets I/O driver options
0x00d1	/cft/shl/cmds/OP/IODRV	display active I/O driver options
0x00d2	/cft/shl/cmds /SW/PORTSW	port switch
0x00d3	/cft/shl/cmds/ALW/SCSD	allows SCSD points and signal

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UID	3B NAME	DESCRIPTION
0x00d3	/cft/shl/cmds /RESET/FANALM	reset fan alarm
0x00d4	/cft/shl/cmds/INH/SCSD	inhibits SCSD function
0x00d5	/cft/shl/cmds/OP/SCSD	display SCSD points
0x00d6	/cft/shl/cmds/ORD/SCSD	set, clear, or flash points
0x00d7	/cft/shl/cmds /DUMP/MHD/VTOC	dumps volume table of contents
0x00d8	/cft/shl/cmds /DUMP/MHD/DEFECT	dumps defect tables
0x00d8	/cft/shl/cmds /LOAD/MHD/DEFECT	loads a defect table
0x00d9	/cft/shl/cmds /DUMP/MHD/BLOCK	dumps a disk block
0x00da	/cft/dap/dkdip	display disk configuration and status
0x0102	/usr/bin/perform	a parser for ucm
0x0102	/cft/shl/cmds1/UPD	invokes a field update action
0x0103	/prc/prchk	tests whether the target process can be reclaimed
0x0104	/prc/dufr	overwrites memory image of non-killable process
0x0105	/prc/kop	overwrites the tv segment
0x0106	/usr/bin/idump	displays information of COFF and tracking problems
0x0106	/prc/oild	creates a new updateable object file
0x0107	/prc/ogen	creates a file to be used by oild and dufr
0x0109	/prc/bldboot	creates boot image
0x010b	/prc/cdcmpr	compares text segments of disk and core image
0x0111	/prc/gspovmon	overload monitor for GRASP
0x0112	/prc/gspac	controls execution of generic access package (GRASP)
0x0113	/cft/shl/cmds/OP/UTIL	lists GRASP breakpoints, status and trace
0x0114	/prc/gspop	outputs GRASP messages

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UID	3B NAME	DESCRIPTION
0x0117	/prc/pldmon	updates maintenance times in all PMDB maintenance records
0x011d	/etc/mkdsk	make disk
0x011e	/bin/isgen	builds boot image on disk
0x011f	/usr/bin/browse	tool for examining data base
0x0121	/usr/bin/sdpcopy	copies data base files
0x0124	/prc/kopf	times for automatic backout using kop
0x0125	/cft/shl/cmds /IN/REMOTE	monitors SCANS-2 file receive process
0x012b	/prc/bwmint	interface for field update session
0x012d	/prc/filerecv	receives and assembles transmitted files
0x012e	/prc/bwmclr	clear BWM from the field update directory
0x012f	/prc/bwmvfy	verifies check sums
0x0132	/usr/bin/pl_aux	data dictionary for the plant measurements database
0x0133	/usr/bin/ibrowse	active process debugger
0x0134	/usr/bin/lla_audits	audits ECD
0x0162	/cft/shl/cmds/VFY/TAPE	invoke tape verification process
0x0163	/audprc/pmsaud	audits plant measurements database
0x0185	/cft/shl/cmds/OP/FNAME	audit command process
0x0186	/prc/klmon	kernel monitoring process
0x0187	/bootfiles/simprc	system integrity monitor
0x0188	/prc/suovprc	supervisor / user lockout monitor
0x0190	/etc/sdlrtc	synchronous data link restore tool
0x0191	/etc/sdlrtn	synchronous data link restore tool
0x0192	/prc/fsaudit	file system audit
0x01a2	/audprc/ecdaud	ECD audits
0x01c4	/prc/cdq	communicates with spy processes
0x01c5	/bin/cmpr	compares text segments of disk and core image
0x01c6	/prc/ftrc	function trace
0x01c7	/prc/ucm	field update controller
0x01da	/prc/fudisplay	displays specified update or BWM records
0x01db	/prc/fupurge	removes records of official and reclaimed BWMs

UID	3B NAME	DESCRIPTION
0x01dc	/prc/fuomit	omits incomplete update records
0x01dd	/usr/bin/fu_aux	field update database generator
0x0200	/bin/errport	errport user process
0x0202	/cft/dap/cia	critical indicators administrator
0x0203	/cft/dap/dap	display administration process
0x0204	/cft/dap/poker	DAP input process
0x0206	/cft/rts	initialize RTS and receive messages
0x0207	/bin/shlgetty	starts craft shells
0x0208	/cft/bin/cftshl	craftshell
0x0208	/cft/bin/cftshlA	craftshell (without initialization message)
0x0209	/cft/spl/csop	craft spooler out process
0x020b	/cft/spl/sop	spooler output process
0x020d	/bin/cdgetty	starts poker
0x020f	/bin/splgetty	starts spooler
0x0210	/cft/dap/inph	test process for DAP
0x0211	/cft/dap/msgh	test process for DAP
0x0211	/etc/rex	routine diagostic exerciser
0x0212	/etc/ccdate	identify source version of code
0x0214	/cft/shl/cmds/OP/LOG	prints log file entries
0x0216	/cft/dap/starter	start reader on C/D input
0x0217	/cft/shl/cmds1/TST	test command for pdshl
0x0218	/prc/bdg	DAP driver
0x0218	/cft/bin/csdip	craft spooler dialog input process
0x0219	/cft/dap/fmctrl	runs 105 and 106 pages
0x021b	/bin/ciagetty	starts cia process
0x021d	/cft/misc/rpttime	time stamp for log files
0x021e	/cft/shl/cmds /CLR/IMCAT	clears imcatlog from core
0x0220	/bin/dlggetty	starts dialog shell
0x0221	/cft/shl/cmds/DLGAUTH	dialog authority file commands
0x0222	/cft/shl/cmds/VFYAUTH	checks authority file
0x0223	/cft/bin/Adlgshl	asynchronous dialog shell
0x0224	/cft/bin/Sdlgshl	synchronous dialog shell
0x0226	/cft/shl/cmds/CLK	sets or prints system clock
0x0227	/cft/shl/cmds/UPD/OMDB	output messages data base

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UID	3B NAME	DESCRIPTION
0x0228	/cft/shl/cmds /CLR/ACKDB	acknowledgements data base
0x0241	/bin/banner	prints a banner
0x0242	/bin/pkill	creates a process to kill other processes
0x0243	/bin/pkillp	kills processes executing under pathname
0x0245	/bin/cat	lists and concatenates UNIX® files
0x0246	/bin/chgrp	change group
0x0247	/bin/chmod	change mode of file
0x0248	/bin/chown	change owner of file
0x0249	/bin/cmp	compare two files
0x024b	/bin/cpio	format of cpio archive
0x024c	/bin/cx	core image debugger
0x024d	/bin/crypt	generate encryption file
0x024e	/bin/date	print and set the date
0x024f	/bin/dd	convert and copy a file
0x0250	/bin/diff	differential file comparator
0x0251	/bin/dlsum	sum bytes in field mode
0x0252	/bin/du	summarize disk usage
0x0253	/bin/echo	repeat string
0x0254	/bin/ed	line editor
0x0255	/bin/env	set environment for command execution
0x0256	/bin/expr	evaluate arguments as an expression
0x0257	/bin/falloc	allocate space for an external file
0x0258	/bin/fgrep	search a file for a pattern
0x0259	/bin/find	find files
0x025a	/bin/fmove	move file into contiguous space
0x025b	/bin/fsize	prints size of files
0x025c	/bin/grep	search a file for a pattern
0x025e	/bin/id	print user, group, fair share group IDs and names
0x025f	/bin/kill	send a signal to a process or a group of processes
0x0260	/bin/killp	kill user processes using a full pathname
0x0263	/bin/line	read one line

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UID	3B NAME	DESCRIPTION
0x0264	/bin/ln	link files
0x0265	/bin/logdir	get login directory
0x0266	/bin/ls	list contents of directory
0x0267	/bin/cp	copy files
0x0267	/bin/mv	move a file
0x0268	/bin/mail	send mail to users or read mail
0x0269	/usr/lib/makekey	generates encryption key
0x026a	/bin/mesg	permit or deny messages
0x026b	/bin/mkdir	make a directory
0x026c	/usr/bin/mop	mount off-line partition
0x026d	/bin/closewd	close window
0x026d	/bin/newgrp	log in to a new group
0x026e	/bin/news	print news items
0x026e	/bin/openwd	open window
0x026f	/bin/nice	change priority of a process
0x0270	/bin/nohup	run a command immune to hangups and quits
0x0271	/bin/od	octal dump
0x0272	/bin/passwd	user information file
0x0273	/bin/pio	I/O to a traced process image
0x0274	/bin/pr	print files
0x027a	/bin/pwd	print working directory name or path
0x027b	/bin/rm	remove files
0x027c	/bin/rmdir	remove directories
0x027e	/bin/run	run kernel processes
0x027f	/bin/sdiff	side-by-side difference program
0x0280	/bin/sleep	suspend execution for interval
0x0281	/bin/sort	sort and/or merge files
0x0282	/bin/split	split a file into pieces
0x0283	/bin/stat	get file status
0x0284	/bin/stty	set the options for a terminal
0x0285	/bin/su	change user ID
0x0286	/bin/sum	print checksum and block count of a file
0x0288	/bin/sync	update super-block
0x0289	/bin/tail	deliver the last part of a file
0x028a	/bin/tee	pipe fitting

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UID	3B NAME	DESCRIPTION
0x028b	/bin/time	get time
0x028c	/bin/touch	update access and modification times of a file
0x028d	/bin/tty	terminal device interface
0x028e	/bin/uname	print name of current system
0x028f	/bin/wc	word count
0x0290	/bin/who	who is on the system
0x0291	/bin/write	write on a terminal
0x0292	/bin/sed	stream editor
0x0293	/usr/bin/asa	interpret the asa control character
0x02c0	/cft/shl/cmds /COPY/ACTDISK	copies a file to an OOS disk
0x02c1	/prc/mntfs	mounts file systems in an OOS disk
0x02c3	/usr/bin/PDSed	PDS editor
0x02c4	/cft/shl/cmds /ALW/FILESYS	file system maintenance
0x02c5	/prc/pmdbcopy	copies plant measurements database from core to disk
0x02c6	/cft/shl/cmds/OP/PMCR	invokes pmcrman
0x02c7	/prc/pmcrcol	updates common records
0x02c8	/prc/pmcrrep	generates PMS reports
0x02c9	/prc/pmcrman	process that controls execution of pmcrcol and pmcrrep
0x02ca	/prc/cpspdisk	copies a file to a spool disk
0x02cb	/prc/cpoosf	copies a file from an OOS disk
0x02cc	/cft/shl/cmds /COPY/CPSPDISK	invokes cpspdisk
0x02cd	/cft/shl/cmds /COPY/CPOOSF	invokes cpoosf
0x02ce	/cft/shl/cmds/CLR/PTN	invokes clearptn
0x02cf	/prc/clearptn	clears out a partition
0x02d0	/usr/bin/chk_pmdb	checks plant measurements database against ecd database.
0x02d1	/cft/shl/cmds /COPY/BKTAPE	copies a multi-volume DAT
0x02d1	/cft/shl/cmds /DUMP/BKTAPE	dumps the first header of the logical volumes on a multi-volume DAT
0x02d5	/bin/urun	run user process
0x02d6	/prc/3btpwrt	writes disk image to tape in LDFT format
0x02d7	/cft/shl/cmds /COPY/BKDSK/ACK	invokes tpack

UID	3B NAME	DESCRIPTION
0x02d8	/cft/shl/cmds /STOP/BKDISK	stops the physical disk to tape writer
0x02d9	/cft/shl/cmds /COPY/BKDSK/START	invokes 3btpwrt
0x02da	/prc/tpack	acknowledge 3btpwrt that a tape is mounted
0x02db	/prc/tpstop	stop execution of 3btpwrt
0x02dc	/prc/supr/continue	restarts execution of a system update
0x02dc	/cft/shl/cmds /UPD/GEN/CONTINUE	invoke continue process
0x02dd	/prc/supr/applhook	application process used during system update
0x02de	/prc/supr/readlog	requests output of system update event log
0x02e0	/cft/shl/cmds /UPD/GEN/BACKOUT	invoke backout process
0x02e1	/cft/shl/cmds /UPD/GEN/COMMIT	invoke commit process
0x02e2	/cft/shl/cmds /UPD/GEN/ENTER	invoke enter process
0x02e3	/cft/shl/cmds /UPD/GEN/PROCEED	invoke proceed process
0x02e4	/cft/shl/cmds /OP/GEN/READLOG	invokes readlog
0x02e5	/cft/shl/cmds /UPD/GEN/RESTORE	invoke restore process
0x02e6	/cft/shl/cmds/STOP/GEN	invokes stop process
0x02e7	/prc/supr/stop	stops the system update command in process
0x02e8	/prc/supr/commit	overwrites old generic with new generic
0x02e9	/prc/supr/restore	restores the old generic to the system
0x02e9	/etc/mkstart	make disk acknowledgment program
0x02ea	/prc/supr/backout	backs out of new generic to old generic
0x02eb	/prc/supr/enter	system update process
0x02ec	/prc/supr/proceed	prepares system for booting from the new generic
0x02ed	/bin/prtcp	copies primary/backup partition
0x02ee	/prc/supr/suprint	invoke a system update process
0x02ef	/prc/supr/applproc	application process
0x02f0	/cft/shl/cmds /UPD/GEN/APPLPROC	invoke an application process

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UID	3B NAME	DESCRIPTION
0x0301	/usr/bin/loadf3b	creates a flatfile from a <> file
0x0302	/bin/sdfinfo	special device file information
0x0303	/prc/psm	power switch monitor
0x0304	/bin/sdfrel	special device file release
0x0307	/cft/shl/cmds/RCV/MENU	DB recent change menu
0x0309	/usr/bin/createecd	creates skeleton of ECD database
0x030a	/usr/bin/rcvecd	recent change and verify ECD from UNIX® terminal
0x030b	/bin/ducb	display UCB in ECD
0x030f	/usr/bin/comparedb	compare databases
0x0310	/usr/bin/fdiff	file differences
0x0311	/usr/bin/keycmp	key compare
0x0312	/usr/bin/keycomm	key common program
0x0313	/usr/bin/keys	keys program
0x0314	/usr/bin/newdb	create a new database
0x0315	/usr/bin/printdb	print database
0x0316	/usr/bin/printfrm	print forms
0x031e	/cft/shl/cmds /RCV/DMTECD	recent change and verify interface for ECD
0x0320	/cft/shl/cmds/OP/ULARP	ularp request processor
0x0322	/cft/shl/cmds/STOP/AUD	audit stop process
0x0323	/cft/shl/cmds/ALW/AUD	allow audit
0x0324	/cft/shl/cmds/AUD	begin audit process
0x0325	/etc/siof	system integrity output formatter
0x0326	/cft/shl/cmds/INH/AUD	audit inhibitor
0x0327	/cft/shl/cmds/OP/AUD	audit report generator
0x032a	/cft/shl/cmds /CLR/EMERDMP	emergency dump
0x032b	/cft/shl/cmds /OP/EMERSTAT	emergency status
0x032c	/etc/op_stat	audit status process
0x032d	/cft/shl/cmds /OP/AUDERR	audit error process
0x032e	/cft/shl/cmds /INIT/ULARP	craft initialization to SIM

UID	3B NAME	DESCRIPTION
0x0334	/cft/shl/cmds/VFY/FILE	verify file
0x0360	/usr/bin/createsg	creates skeleton of SG database
0x0361	/usr/bin/rcvsg	recent change and verify SG from UNIX® terminal
0x0362	/usr/bin/rcvecdmcrt	recent change and verify ECD from MCRT
0x0363	/usr/bin/rcvsgmcrt	recent change and verify SG from MCRT
0x0364	/cft/shl/cmds /RCV/DMTSG	recent change and verify interface for SG
0x0365	/usr/bin/vfydflt	perform default file verification via vfydflt
0x0366	/usr/bin/iopadd.p	addition of IOP
0x0366	/usr/bin/iopdel.p	deletion of IOP
0x0366	/usr/bin/links.p	review linkage orders
0x0366	/usr/bin/mtadd.p	addition of maintenance terminal
0x0366	/usr/bin/mtcadd.p	addition of maintenance terminal controller
0x0366	/usr/bin/mtcdel.p	deletion of maintenance terminal controller
0x0366	/usr/bin/mtdel.p	deletion of maintenance terminal controller
0x0366	/usr/bin/sdladd.p	addition of SCANS distributor linkage
0x0366	/usr/bin/sdlcadd.p	addition of SCANS distributor linkage controller
0x0366	/usr/bin/sdlcdel.p	deletion of SCANS distributor linkage controller
0x0366	/usr/bin/sdldel.p	deletion of SCANS distributor linkage
0x0366	/usr/bin/slots.p	review slot assignments on UCB
0x0366	/usr/bin/ttyadd.p	addition of tty
0x0366	/usr/bin/ttycadd.p	addition of ttyc
0x0366	/usr/bin/ttycdel.p	deletion of ttyc
0x0366	/usr/bin/ttydel.p	deletion of tty
0x0366	/usr/bin/vfydflt.p	perform vfydflt process
0x0379	/bin/rmtgetty	remote dialog shell

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