

TITLE: 3B20D and 3B21D PDS Input Messages Manual Addendum User Instructions

Enclosed is the "COMPLETE UPDATE" Addendum to the 3B20D and 3B21D Computers UNIX® Operating System, Input Messages Manual - PDS (254-303-110). This Addendum contains all new updated replacements to the PDS Input 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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ADD PAUTH	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
ADD PCGRP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
ADD PROFL	1	UNIX RTR R21.3, R21.11, R21.15 and later	
ADD TAUTH	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
ADD TCGRP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
ALW AUD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
ALW CONFLOG	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
ALW DMQ	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
ALW EAIINT	1	UNIX RTR R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
ALW ERRCHK	1	UNIX RTR R1.5 and R6.4	
ALW ERRCHK	1	UNIX RTR R21.3, R21.11, R21.15 and later	
ALW ERRINT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
ALW ERRSRC	1	UNIX RTR R1.5, 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	
ALW FILESYS MOUNT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
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, R6.4, R21.3, R21.11, R21.15 and later	
ALW REX	1	UNIX RTR R1.5 and R6.4	
ALW REX	1	UNIX RTR R21.3, R21.11, R21.15 and later	
ALW SCSD	1	UNIX RTR R1.5 only	
ALW SCSD	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
ALW SFTCHK	1	UNIX RTR R1.5, 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	
ALW UTIL	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
ALW UTILFLAG	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
APPLY OMDB	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
AUD CUMEM	1	UNIX RTR R1.5, R6.4 and R21.3	
AUD CUMEM	1	UNIX RTR R21.11, R21.15 and later	
AUD CUSTAT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
AUD ECD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
AUD ECDOWN	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
AUD FMGR	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
AUD FSBLK	1	UNIX RTR R1.5 and R6.4	
AUD FSBLK	1	UNIX RTR R21.3, R21.11, R21.15 and later	
AUD FSCMPT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
AUD FSLINK	1	UNIX RTR R1.5 and R6.4	
AUD FSLINK	1	UNIX RTR R21.3, R21.11, R21.15 and later	
AUD MMGR	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
AUD MSGBUF	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
AUD PMS	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
AUD PROAD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
CFR DUPLEXDISKS	1	UNIX RTR R21.27 and later	
CHG PAUTH	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
CHG PROFL	1	UNIX RTR R21.3, R21.11, R21.15 and later	
CLR ACKDB	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 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 only	
CLR FANALM	1	UNIX RTR 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	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
CLR PTN	1	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 and R6.4	
CLR UTIL	1	UNIX RTR R21.3, R21.11, R21.15 and later	
CLR UTILFLAG	1	UNIX RTR R1.5 and R6.4	
CLR UTILFLAG	1	UNIX RTR R21.3, R21.11, R21.15 and later	
CMPR DISK CORE	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
CMPR MHD	1	UNIX RTR R1.5, R6.4 and R21.3	
CMPR MHD	1	UNIX RTR R21.11 and R21.15	
CMPR MHD	1	UNIX RTR R21.17 and later	
COPY ACTDISK	1	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	1	UNIX RTR R1.5 and R6.4	
COPY BKDISK	1	UNIX RTR R21.3 and R21.11	
COPY BKDISK	2	UNIX RTR R21.15 and later	
COPY BKTAPE	1	UNIX RTR R21.15 and later	
COPY DIFF MHD	1	UNIX RTR R1.5, R6.4 and R21.3	
COPY DIFF MHD	1	UNIX RTR R21.11 and R21.15	
COPY DIFF MHD	1	UNIX RTR R21.17 and later	
COPY OOSDISK	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
COPY PTN ALL	1	UNIX RTR R1.5, R6.4, R21.3 and R21.11	
COPY PTN ALL	1	UNIX RTR R21.15 and later	
COPY PID	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
COPY REG	3	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
COPY SPDISK	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 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	

Messages	No. of Sheets	Generic Range	Remarks
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	
COPY UID	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
COPY UVAR	3	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DEL LOG	1	UNIX RTR R1.5 and R6.4	
DEL LOG	1	UNIX RTR R21.3, R21.11, R21.15 and later	
DEL PAUTH	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DEL PCGRP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DEL PROFL	1	UNIX RTR R21.3, R21.11, R21.15 and later	
DEL TAUTH	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DEL TCGRP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DGN CU	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DGN DCI	2	UNIX RTR R21.3, R21.15 and later	
DGN DFC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 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, R21.13, R21.11, R21.15 and later	
DGN MTTYC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
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	
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	1	UNIX RTR R21.15 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 DATA	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, R21.11, R21.15 and later	
DUMP FILE PARTL	1	UNIX RTR R1.5, R6.4 and R21.3	
DUMP FILE PARTL	1	UNIX RTR 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 BLK	1	UNIX RTR R1.5 only	
DUMP MHD BLK	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
DUMP MHD DEF	1	UNIX RTR R1.5 only	
DUMP MHD DEF	1	UNIX RTR R6.4 only	
DUMP MHD DEF	1	UNIX RTR R21.3, R21.11, R21.15 and later	
DUMP MHD VTO	1	UNIX RTR R1.5, R6.4, 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	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
DUMP UID	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
DUMP UVAR	1	UNIX RTR R1.5, R6.4, R21.3, 21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
VOLUME 2			
INDEX	11	UNIX RTR All Active Generics	
END WHEN	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	
EX DUIC	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
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, R21.15 and later	
EX LDPARM	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
EX LOOP	2	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	2	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	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
EX STOP	2	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	

Messages	No. of Sheets	Generic Range	Remarks
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	2	UNIX RTR R21.3, R21.11, R21.15 and later	
EXC UCL	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
IN DTIME	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, 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 FILESYS DIR	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	
IN REMOTE REPT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
IN REMOTE START	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
IN REMOTE STOP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
IN STIME	1	UNIX RTR R1.5 only	
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 and R6.4	
INH ERRCHK	1	UNIX RTR R21.3, R21.11, R21.15 and later	
INH ERRINT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
INH ERRSRC	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
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, R6.4, R21.3, R21.11, R21.15 and later	
INH REX	1	UNIX RTR R1.5 and R6.4	
INH REX	1	UNIX RTR R21.3, R21.11, R21.15 and later	
INH SCSD	1	UNIX RTR R1.5 only	
INH SCSD	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
INH SFTCHK	1	UNIX RTR R1.5, 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	
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	1	UNIX RTR R1.5 only	
INIT MHD	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
INIT UC	1	UNIX RTR R1.5 and R6.4	
INIT UC	1	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	2	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, R21.3 and R21.11	
LOAD DFC PUMP	1	UNIX R21.15 and later	
LOAD DFC RAM	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
LOAD MHD DEFECT	1	UNIX RTR R1.5 only	
LOAD MHD DEFECT	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
LOAD MHD FIRMWARE	1	UNIX RTR R6.4, 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	

Messages	No. of Sheets	Generic Range	Remarks
LOAD REG	2	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	
OP ABD	1	UNIX RTR R21.27 and later	
OP ACT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP AUD	1	UNIX RTR R1.5 only	
OP AUD	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
OP AUDERR	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP CFGSTAT	1	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	1	UNIX RTR R21.37 and later	
OP DEVICE INFO	1	UNIX RTR R21.37 and later	
OP DFC INFO	1	UNIX RTR R6.4 only	
OP DFC INFO	1	UNIX RTR R21.3, R21.11, R21.15 and later	
OP DFCELOG	1	UNIX RTR R1.5 only	
OP DFCELOG	1	UNIX RTR R6.4 only	
OP DFCELOG	1	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	1	UNIX RTR R21.3, R21.11, R21.15 and later	
OP FNAME	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP GEN	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP GROW	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP INIT	1	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	1	UNIX RTR R21.27 and later	

Messages	No. of Sheets	Generic Range	Remarks
OP LOG	2	UNIX RTR R1.5 and R6.4	
OP LOG	2	UNIX RTR R21.3, R21.11, R21.15 and later	
OP MEMERRS	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP MHD INFO	1	UNIX RTR R1.5 only	
OP MHD INFO	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
OP MT INFO	1	UNIX RTR R21.3, R21.11, R21.15 and later	
OP OFL	1	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	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP PMCR	1	UNIX RTR R1.5, R6.4, R21.3, 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 only	
OP SCSD	1	UNIX RTR 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	
OP STATUS PROCESS	1	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	
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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	

Messages	No. of Sheets	Generic Range	Remarks
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	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP UNEQIP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
OP UTIL	1	UNIX RTR R1.5, 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 only	
ORD SCSD	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
RCV DMTECD RC	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 RC	2	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 BROWSE	1	UNIX RTR R1.5, R6.4, R21.3 R21.11, R21.15 and later	
RCV MENU COMPAREDB	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RCV MENU CREATEECD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RCV MENU CREATESG	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RCV MENU EVOL	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RCV MENU FDIFF	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RCV MENU KEYCMP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RCV MENU KEYCOMM	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RCV MENU KEYS	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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RCV MENU NEWDB	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RCV MENU PRINTDB	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RCV MENU PRINTFRM	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RCV MENU RCVECD	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RCV MENU RCVSG	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RCV MENU TRANSGEN	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RCV MENU TREEBLD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RCV MENU VFYDFLT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	

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RFT BEGINPOST	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RFT FDUMP	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RFT PRINT	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
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 only	
RMV DFC	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 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	

Messages	No. of Sheets	Generic Range	Remarks
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	1	UNIX RTR R1.5 only	
RMV MHD	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
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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	
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RST CU	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
RST DCI	1	UNIX RTR R21.3, R21.15 and later	
RST DFC	1	UNIX RTR R1.5 only	
RST DFC	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	

Messages	No. of Sheets	Generic Range	Remarks
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	1	UNIX RTR R1.5 only	
RST MHD	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
RST MT	1	UNIX RTR R1.5 and R6.4	
RST MT	1	UNIX RTR R21.3, R21.11, R21.15 and later	
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	1	UNIX RTR R6.4, 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	
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STOP AUD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
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STOP CMPR MHD	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
STOP COPY DIFF	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, 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	
STOP GEN	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
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SW OFLBOOT	1	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 ACKU	1	UNIX RTR R1.5 only	
TST ALT	1	UNIX RTR R1.5 only	
TST SHL	1	UNIX RTR R1.5 only	
TST SPL	1	UNIX RTR R1.5 only	
UPD APPLY BYTER	1	UNIX RTR R1.5, R6.4 and 21.3	
UPD APPLY BYTER	1	UNIX RTR R21.11, R21.15 and later	
UPD APPLY FILER	1	UNIX RTR R1.5, R6.4 and R21.3	
UPD APPLY FILER	1	UNIX RTR R21.11, R21.15 and later	
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UPD AUTOPROFILE	1	UNIX RTR R21.11, R21.15 and later	
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UPD BKOUT	1	UNIX RTR R1.5, R6.4 and R21.3	
UPD BKOUT	1	UNIX RTR R21.11, R21.15 and later	
UPD BLDBOOT	1	UNIX RTR R1.5, R6.4 and R21.3	
UPD BLDBOOT	1	UNIX RTR R21.11, R21.15 and later	
UPD BLOCK	1	UNIX RTR R21.11, R21.15 and later	
UPD BOLO	1	UNIX RTR R21.11, R21.15 and later	
UPD CHG APPLY	1	UNIX RTR R21.11, R21.15 and later	
UPD CHG BKOUT	1	UNIX RTR R21.11, R21.15 and later	
UPD CHG INST	1	UNIX RTR R21.11, R21.15 and later	
UPD CHG SKTM	1	UNIX RTR R21.11, R21.15 and later	
UPD CLR	1	UNIX RTR R1.5, R6.4 and R21.3	
UPD CLR	1	UNIX RTR R21.11, R21.15 and later	
UPD CLRBWM	1	UNIX RTR R21.11, R21.15 and later	
UPD CSCANS REPORT	1	UNIX RTR R21.11, R21.15 later	
UPD CSCANS STOP	1	UNIX RTR R21.11, R21.15 and later	
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UPD EXPAND	1	UNIX RTR R21.11, R21.15 and later	
UPD FLASH	1	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	
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UPD GEN CONTINUE	1	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
UPD GEN ENTER	2	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later	
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, 6.4, 21.3, R21.11, R21.15 and later	
UPD GENP	1	UNIX RTR R21.11, R21.15 and later	
UPD INITPW	1	UNIX RTR R21.11, R21.15 and later	
UPD NXTWNDW	1	UNIX RTR R21.11, R21.15 and later	
UPD OFC	1	UNIX RTR R21.11, R21.15 and later	

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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	
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UPD VFYCON	1	UNIX RTR R21.11, R21.15 and later	
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VFY FILE	2	UNIX RTR R21.3, R21.11, R21.15 and later	
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VFY MHD	1	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later	
VFY PAUTH	1	UNIX RTR R1.5 and R6.4	
VFY PAUTH	1	UNIX RTR 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	

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VFY TAPE	1	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	
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APPNDX MEMB NMBRS C	1	UNIX RTR R1.5, R6.4, R21.3 R21.11, R21.15 and later	
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4. INPUT MESSAGE DESCRIPTIONS

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Section 1

Introduction

1.1 Purpose of Manuals

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

Input messages provide control over various maintenance and administration functions associated with the Lucent 3B20D and 3B21D computer hardware, peripheral devices, and system software. To use these messages effectively, you should be familiar with the system architecture of the Lucent 3B20D and 3B21D computers. Input messages are typically used by system installers, maintainers, operators, and administrators, and are reported at the maintenance console.

The PDS input message manuals are a three-volume set designed to be used with the PDS *Lucent 3B20D and 3B21D Computers UNIX® RTR Operating System PDS Output Messages Manuals*. All messages in Issue 6 of these manuals represent the supported messages for generics UNIX RTR Release R1.5 and later.

1.2 Functions of Input Messages

Input messages are used to perform maintenance and administration functions for the Lucent 3B20D and 3B21D computers. Many input messages allow you to initiate functions that result in further action or reporting via output messages. Some examples of the types of things that can be done using input messages include:

- execute diagnostic and/or system exerciser programs, with or without resulting reports
- report the status of system software components
- enter translation information into memory
- restore units to or remove units from service

1.3 Organization of Manuals

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

- Overview (Volume 1 only)
- Message Descriptions (Volumes 1 through 3)
- Supplementary Information (Volume 3 only)

The following describes the information found in each of these sections.

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Overview

The *Overview* section, found in Volume 1, introduces the contents of the manual set, explains how input messages are used, and presents two indexes (functional and alphabetical) for identifying and using input messages. Section 2, *User Guidelines*, gives explanations and illustrations of how to use PDS input messages and the help facilities.

Message Descriptions

This section contains a manual page for each input message available on the maintenance interface channels. The message descriptions are presented in alphabetical order in Volumes 1, 2, and 3. For each message, the following information is documented:

- Keyblock
- Warnings/Cautions
- Purpose
- Format
- Explanation
- System Response
- References

Keyblock

The keyblock is the block of text in the upper right corner on the first page of every message description, below the message name. The following entries are found in every keyblock:

- ID - A unique identifier used in all input messages. 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 ID.

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 forth.

- 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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Admonishments

Use of some input messages may adversely affect system operations, reliability, or performance. These messages are flagged with a warning or caution message at the left side of the keyblock. Further information about the warning or caution is given in the Purpose Section.

Purpose

This section contains a brief explanation of the function of an input message. If appropriate, admonishments are also given here.

Format

Message formats display the different ways that input messages can be entered at the maintenance console. The format section is important because it shows the exact syntax that must be used so the system can interpret the message correctly.

Explanation

The Explanation section describes the meaning of all keywords, arguments, and variables shown in the Format Section.

System Response

This section lists the possible responses that may be received at the console after entering an input message. The system typically responds to input messages with a two-character response approximately five seconds after the message is entered. Acknowledgements give information about the status of your message (e.g., accepted, rejected, in process, etc.). Table 2-2 in the User Guidelines gives a complete list of all possible acknowledgements.

References

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

Supplementary Information

This section, which is located at the end of Volume 3, contains the appendixes referred to in the input message descriptions. The input message appendixes provide further information about System Audits and Member Numbers.

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.

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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 editions. A comment card is also provided in the back of this manual for your use.

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Section 2

User Guidelines

2.1 Introduction

Message formats are important to note when using the 3B20D or 3B21D computer input messages. This section explains message format rules, along with the conventions that are used in the manuals to show how messages are entered.

The PDS manuals document input messages that are formatted according to the rules of the Program Documentation Standards (PDS). It is beyond the scope of this manual to provide a detailed description of PDS. Please refer to the *Program Documentation Standards Reference Manual* available from Lucent Technologies Bell Laboratories for a complete description of PDS.

2.2 Input Message Format

The format of a 3B20D or 3B21D computer input message consists of a series of fields of information that must be entered in a prescribed order. Information fields are used for specifying input message keywords and parameters. In many messages, additional information can be specified to qualify the keywords and parameters used. The format and structure of PDS input message fields is explained next and is summarized in Table 2-1.

2.2.1 Conventions Used in This Manual

The following formatting conventions are used throughout this manual:

- Keyboard input is shown in **constant width bold** typeface.
- Constant width type is used in this document for the following:
 - system-generated responses displayed on your screen
 - code samples
 - literals used in text including command names, file names, and path names
- *Italic* type is used in this document for the following:
 - place holders for user-defined input; for example,
ls -l *file_name*
 - titles of other documents
- Keyname references are enclosed in Boxes .

2.2.2 PDS Message Fields

A PDS input message consists of two or three fields, separated by colons and semicolons and terminated with an exclamation point. The first field, referred to as the action field, contains a keyword called the "verb." The verb identifies the action resulting from an input message request. Examples of action verbs include COPY, LOAD, and DUMP, or abbreviations such as ALW (allow), DGN (diagnose) or INH (inhibit). See Table 2-2 for a complete listing of keyword verbs and their abbreviations. The action field of an input

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message is followed by the identification field, which designates the object of some action resulting from the input message request. The identification field may be divided into two or three subfields, separated by semicolons.

The data field follows the identification field and provides any data or additional information needed for performing the action requested by the message. The data field may contain many subfields, which are usually separated by commas. Not all messages have a data field. However, if a data field is used, it must be the last field of the message.

The general format of a PDS input message follows:

Action Field (verb): Identification Field [:Data Field]!

Here are examples of valid PDS input messages.

EXAMPLE	DESCRIPTION
CLR:UMEM!	Action (CLR) and Identification fields (UMEM); no data field and no subfields.
UPD:GEN;PROCEED;UCL!	Action (UPD) and three identification subfields (GEN , PROCEED and UCL).
OP:STATUS;PROCESS,ALL!	Action (OP), Identification (STATUS), and two data subfields (PROCESS and ALL).

2.2.3 PDS Keywords, Arguments, and Variables

PDS message fields and subfields each contain one or more keywords. Multiple keywords are separated by commas. A PDS keyword, shown in uppercase type in message documentation, is a mnemonic identifier that stands for an action, unit, function, or condition. Keywords must always be entered exactly as shown in the message format.

A keyword may appear by itself, or it may be followed by one or more arguments, separated from the keyword by a space or enclosed in parentheses. Arguments may be numeric or alphanumeric. When arguments are shown as lowercase letters, they represent variables that should be replaced with user-defined data. In some messages, a variable is associated with a choice of keywords.

A keyword unit may have a single argument, a list, or a range of arguments. For PDS messages, arguments in a list are separated by commas and are enclosed in parentheses. There may be up to 15 arguments in a list. Any two arguments used to indicate a range are separated by a hyphen.

2.2.4 A Summary of PDS Rules

When entering input messages with the PDS language, the following rules must be observed:

- Numerical arguments are assumed to be decimal unless preceded by a number base indicator: B' for binary, O' for octal, X' for hexadecimal, or D' for decimal.

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- A message may consist of up to 255 characters and spaces, and may extend over several lines of input. A split(s) in input must be in the data field; the separate segments must end with a slash (/), followed by a carriage return.
- The final character of a PDS input message must be either an exclamation point (!) or a slash (/). An exclamation point causes the message to be executed immediately as entered. A slash serves as a continuation character for messages that exceed one screen line. If the portion of a message given on the first line is complete enough so that the system can determine its meaning, the system will execute the part of the message before the slash. A colon (:) prompt will then be returned for further keywords. Depending on the type of message, using a slash may cause execution to be delayed until an appropriate breakpoint is reached. Beginning with Release 1.5, a question mark may be entered to request help (see Section 2.7).
- One or more spaces are required to separate a PDS keyword from its arguments. The one exception is a list of PDS arguments within parentheses; the left parenthesis serves as the separator and the space is optional.
- Except within a keyword or parameter, spaces are normally optional within an input message.

2.3 Documentation Format Notation

The message formats shown in the manuals use a special notation that is not part of the message itself. This notation is instructional only and should not be included on the message command line:

[] Brackets indicate optional entries. You can include or omit these entries.

{ } Braces indicate two or more entries where one, and only one, should be included in the message.

| OR bars separate entries within braces and brackets.

Examples of the meanings of brackets, braces, and OR bars in documentation are shown as follows:

<i>EXAMPLE</i>	<i>DESCRIPTION</i>
[ENTRY=a][ENTRY=b]	ENTRY <i>a</i> may be included in the message or omitted. ENTRY <i>b</i> may be included in the message or omitted.
{ENTRY=a ENTRY=b}	Either ENTRY <i>a</i> or ENTRY <i>b</i> , but not both, must be included in the message.
[ENTRY=a ENTRY=b]	Neither entry, or just one entry, may be included in the message.

The examples shown next illustrate the difference between how a message is documented and how it can be entered validly at the console.

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Message format: **STOP:EXC;USER, {PID *a*|FN "*b*"},SIG *c*}**

Valid input forms: **STOP:EXC;USER,PID *a*!
STOP:EXC;USER,FN *b*!
STOP:EXC;USER,PID *a*,SIG *c*!
STOP:EXC;USER,FN *b*,SIG *c*!**

Example 1 - Entries within Braces

Message format: **ALW:REX;{CU[*a*]|DFC[*b*]|IOP[*c*]}!**

Valid input forms: **ALW:REX;CU!
ALW:REX;CU *a*!
ALW:REX;DFC!
ALW:REX;DFC *b*!
ALW:REX;IOP!
ALW:REX;IOP *c*!
ALW:REX;ALL!**

Example 2 - Braced Entries with a Bracketed Entry

Message format: **IN:REMOTE;START[,BSDIR *a*][BLOCKS *b*][VLEV *c*]!**

Valid input forms: **IN:REMOTE:START!
IN:REMOTE;START,BSDIR *a*!
IN:REMOTE;START,BLOCKS *b*!
IN:REMOTE;START,VLEV *c*!
IN:REMOTE;START,BSDIR *a*,BLOCKS *b*!
IN:REMOTE;START,BSDIR *a*,VLEV *c*!
IN:REMOTE;START,BLOCKS *b*,VLEV *c*!
IN:REMOTE;START,BSDIR *a*,BLOCKS *b*,VLEV *c*!**

Example 3 - Entries within Brackets

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Message format: **OP : STATUS ; DISKUSE , FN *a* , { TOTAL | EACH } [, OPL *b*] !**

Valid input forms: **OP : STATUS ; DATA , DISKUSE , FN *a* , TOTAL !**
OP : STATUS ; DISKUSE , FN *a* , TOTAL , OPL *b* !
OP : STATUS ; DISKUSE , FN *a* , EACH !
OP : STATUS ; DISKUSE , FN *a* , EACH , OPL *b* !

Example 4 - Braced and Bracketed Entries

Message format: **RST : TTYC *a* [[; UCL] [; DATA , CONT] | [; RAW] [; DATA , { TLP | CONT | TLP , CONT }]] !**

Valid input forms: **RST : TTYC *a* !**
RST : TTYC *a* ; UCL !
RST : TTYC *a* ; UCL ; DATA , CONT !
RST : TTYC *a* ; RAW !
RST : TTYC *a* ; TLP !
RST : TTYC *a* ; CONT !
RST : TTYC *a* ; TLP , CONT !
RST : TTYC *a* ; RAW ; TLP !
RST : TTYC *a* ; RAW ; CONT !
RST : TTYC *a* ; RAW ; TLP , CONT !

Example 5 - Bracketed Entries within Brackets

Table 2-1 (beginning on the next page) reviews the components of input message structure and format.

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Table 2-1
Summary of Message Structure and Format

Term or Item	Definition
Action Field	First field of PDS message. Contains verb.
Argument	Separated from PDS keyword by a space or left parenthesis. Often represented by a variable in the message format. Can be input as a single entry, as a list of up to 15 entries in the form (a,b,c...), or as a range in the form x-y.
Braces {}	Enclose two or more entries, separated by OR bars, of which only one must be input. The braces should not be entered as part of the message.
Brackets []	Enclose optional entries. The brackets should not be entered as part of the message.
Data Field	Optional third field of PDS message. Contains keyword unit(s). May contain many subfields, separated by commas.
Exclamation Point !	PDS message terminating character that causes the command to be executed as an immediate action.
Field	Basic message unit of variable length. Must be separated by colons. In PDS, there should be no more than three fields per message: action field, identification field, and optional data field, in that order.
Identification Field	Second field of PDS message. Contains keyword unit(s). May contain two or three subfields, usually separated by semicolons.
Keyword	Mnemonic PDS identifier of a unit, function, or condition. May have argument(s) associated with it. Input as shown.
Keyword Unit	PDS keyword and its associated arguments, if any. Two or more keyword units within a field or subfield are separated by commas.
Lowercase Entry	Boldface arguments should be entered as shown. Variable arguments should be replaced with user-defined data.
Message Length	Up to 255 characters (254 characters plus terminating character), including spaces. May exceed one line.

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Table 2-1
Summary of Message Structure and Format *(continued)*

Term or Item	Definition
Number Base	Default is decimal. Otherwise, numbers input must be preceded by B' (binary), O' (octal), X' (hexadecimal).
OR bar	Separates entries within braces or brackets. Indicates that only one entry must be selected. OR bars should not be entered as part of the message.
Pathname	Begins with root (/) and identifies each directory and file name, separated by a slash. When used in input messages, must be enclosed in quotation marks ("").
Question Mark ?	Help request character. A question mark may follow a partial message or previously entered message that was erroneous. Typing ? after a help guidance message puts the help facility in the prompting mode.
Quotation Marks ""	Use to enclose pathnames or any entered text strings. Enter as shown.
Slash /	PDS message terminating character (must be followed by a carriage return) that does one of the following: • Causes the command to be executed at an appropriate break point (for example, WHEN:PID... message). • Indicates that more data field parameters follow on the next line of input (for example, RCV:DMT... message). Also causes a colon (:) prompt to be issued. The terminal will not print out messages until the normal exclamation mark (!) terminating character is entered.
Space	Required between PDS keyword and its argument, and not permitted within keywords or parameters. Otherwise, spaces in message input is optional.
Subfield	Optional breakdown of PDS identification or data fields. Contains keyword units.
Uppercase Entry	Constant keyword that should be entered as shown.

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Table 2-1
Summary of Message Structure and Format *(continued)*

Term or Item	Definition
Variable	Shown as a lowercase letter in message documentation. Replace with user-defined data. Usually represents an argument or parameter value; sometimes a keyword unit or parameter.
Verb	First field of a message. Called the action field. Defines type of action to be taken. Verb or verb abbreviation.

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Table 2-2
Verbs and Abbreviations

Verb (Abbreviation)	Verb (Abbreviation)	Verb (Abbreviation)
ACTIVATE (ACTV)	END	RECENT CHANGE
ADVANCE (ADV)	ENTER (ENT)	& VERIFY (RCV)
ALLOW (ALW)	EXECUTE (EXC)	RECORD (RCD)
ANALYZE (ANALY)	EXERCISE (EX)	RECOVER (RCV)
ASSIGN (ASGN)	EXIT	RELEASE (RLS)
AUDIT (AUD)	EXPAND (EXP)	REMOVE (RMV)
BACKUP (BKUP)	FILTER (FLT)	RENAME (RNM)
BROWSE (BWS)	FIND (FD)	REPORT (REPT)
CALCULATE (CALC)	FORMAT (FMT)	RESET
CALL (CA)	HELP	RESTART (RSTR)
CANCEL (CANC)	HOLD (HLD)	RESTORE (RST)
CHANGE (CHG)	INHIBIT (INH)	RETRIEVE (RTRV)
CHECK (CHK)	INITIALIZE (INIT)	ROUTE (RTE)
CLEAR (CLR)	INPUT (IN)	SCHEDULE (SCHED)
COMBINE (COMB)	LOAD	SEND (SND)
COMPARE (CMPR)	MOUNT (MT)	SET
COMPILE (CMPL)	MOVE (MV)	SORT (SRT)
CONFIGURE (CONFIG)	OPERATE (OPR)	START (ST)
COPY (CPY)	ORDER (ORD)	STOP (STP)
CREATE (CRTE)	OUTPUT (OP)	SWITCH (Sw)
DELETE (DEL, DLT)	PREPHASE	TEST (TST)
DIAGNOSE (DGN)	PRINT (PRT)	TRACE (TRC)
DISPLAY (DISPL)	PROCESSOR RECOVERY	UNLOAD (UNLD)
DISTRIBUTE (DIST)	MESSAGE (PRM)	UNMOUNT (UNMT)
DUMP	PROJECT (PROJ)	UPDATE (UPD)
EDIT (ED)	RECENT CHANGE (RC)	VERIFY (VER, VFY)
ELSE	RECENT CHANGE	WHEN
	ACTIVATE (RCACT)	WRITE (WRT)

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2.4 Pathnames in Input Messages

Every file and directory in the UNIX System is identified by a unique pathname that indicates the location of the file or directory in the hierarchical file system structure. Some 3B20D and 3B21D computer input messages require the specification of a pathname. Two types of pathnames may be specified:

- Full pathnames begin with a slash (/) to identify **root**, followed by the names of all directories and files within the path. Each directory and/or filename is separated by a slash in the pathname. For example, the pathname **/etc/bwm/CFT86-0000/HDR** defines a header file for a broadcast warning message (BWM).
- Relative pathnames begin with the name of a directory or file at a point in the file system hierarchy relative to the current working directory.

Because pathnames contain lower-case alphabetic characters and slashes, they must always be surrounded by quotation marks (") when entered in an input message.

The following listing illustrates some of the pathnames that may be used in input messages:

Table 2-3 Pathnames and Meanings

Pathname	Meaning
/	Full pathname of the root directory of the root file system.
/database	Full pathname of the database directory which is located directly under root .
/cft/shl/cmds	Full pathname of the cmds directory, found under the shl directory, which is located under the cft directory, which is located directly under / .
/cft/shl/cmds/INH/AUD	Full pathname of the AUD program which is executed by the INH:AUD input message.
INH/AUD	Relative pathname of the same AUD program, which can be specified while working from the /cft/shl/cmds base directory.
OP/AUD	Relative pathname of the AUD program which is executed by the OP:AUD input message. Can be specified when the /cft/shl/cmds directory is the current working directory.

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Table 2-3 Pathnames and Meanings (*continued*)

Pathname	Meaning
/dev/root	Full pathname of the special device file for the disk partition that contains the root file system (mounted as /).
/dev/broot	Full pathname of the special device file for the disk partition that contains the backup copy of the root file system (also mounted as /).
/dev/db	Full pathname of the special device file for the disk partition that contains the db file system (mounted as /database).
/dev/bdb	Full pathname of the special device file for the disk partition that contains the backup copy of the db file system (also mounted as /database).
/dev/mtxy	Full pathname for the special device files that define magnetic tape devices. The xy variables define tape drive characteristics: x = tape drive number (input output (IOP) number) y = tape density and rewind capability Values for y can be: 0 = high density with automatic rewind after read/write 4 = high density with no rewind after read/write 8 = low density with automatic rewind after read/write c = low density with no rewind after read/write For example, the special device file /dev/mt00 is the full pathname of a high density tape drive configured on IOP number 0 that rewinds a tape after reading from it or writing to it. The device file /dev/mt1c is the full pathname of a low density tape drive that is configured on IOP 1 which does not rewind tapes after reading from them or writing to them.

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2.5 Input Message Acknowledgements

The 3B20D and 3B21D computers acknowledge all input message requests. Acknowledgements appear either immediately after an input message is entered (or a significant portion has been entered) or within five seconds. Most message acknowledgements only report status of the requested action and do not indicate the actual results of the input message action. For example, an OK acknowledgement from an input message requesting diagnostic tests indicates that testing was executed, not that all diagnostic tests passed.

The following table lists the system acknowledgements that are reported from input message requests.

Table 2-4
Input Message Acknowledgements

Acknowledgement	Meaning
OK	Good. The message was received, the appropriate process was initiated, and work was completed.
NG	No Good. The message was received, the appropriate process was initiated, but the request conflicts with the current system or equipment status. For example, action was requested for a device currently being diagnosed.
NA	No Acknowledgement. Normally, the system acknowledges an input request within 5 to 10 seconds. If control of message processing is lost, NA is reported to indicate an acknowledgement failure.
PF	Printout Follows. The request was received and will be acted upon. A printout will follow later to explain in detail the results of the work initiated by the input message. Such printouts are normally termination reports that include the results of the work initiated by an input message.
RL	Repeat Later or Retry Later. Request cannot be executed now due to unavailable system resources; for example, system overload, excessive queue lengths, or requested process is busy.
?I	Identification field contains an error. Check the input message description page for detail.
?D	Data field contains an error.
?T	Time-out has occurred on a channel.

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Table 2-4
Input Message Acknowledgements *(continued)*

Acknowledgement	Meaning
IP	In Progress. Request received and initiated. Further output will follow.
?A	Action field contains an error.
?E	Error exists in the message; fields cannot be resolved properly.

2.6 Craft Shell Acknowledgements

The Craft Shell (CFTSHL) is a special UNIX System shell running on the 3B20D and 3B21D computers that handle input messages from an operator console or maintenance CRT (MCRT). The CFTSHL uses the maintenance terminal input language to provide the interface between the console and the 3B20D or 3B21D processors. CFTSHL processes are created for each maintenance (craft) terminal in the system. Client programs are invoked by the CFTSHL in response to commands entered at the maintenance or user terminal. The CFTSHL produces error acknowledgements when it detects either syntax errors or operational inconsistencies.

NOTE: The remainder of the material in this section applies to UNIX RTR R1.5 and later systems only.

2.6.1 UNIX RTR Craft Shell Acknowledgements

The Craft Consistency Feature of UNIX RTR R1.5 and later supports additional error acknowledgements that result from trapping partial input message requests. These acknowledgements are printed five seconds after either a complete input message has been entered or a portion of an input message has been entered and the system can return the acknowledgement.

Table 2-5 lists the UNIX RTR Craft Shell error acknowledgements.

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Table 2-5
Error Acknowledgements Produced
by the UNIX RTR Craft Shell
(UNIX RTR R1.5 and later)

Acknowledgement	Meaning
?A ACTION FIELD ERROR	Occurs as the result of an inaccurate action-verb specification.
?I IDENTIFICATION FIELD ERROR	Occurs as the result of an inaccurate or improper identification-field specification.
?D DATA FIELD ERROR	Occurs as the result of an inaccurate or improper data-field specification.
?E UNIDENTIFIED ERROR	Occurs as the result of an inaccurate or improper input generation.
?E IMPROPERLY TERMINATED INPUT	Indicates a non-CFTSHL terminator input command sequence.
?E IMPROPERLY ESCAPED INPUT	Indicates an improperly 'escaped' CFTSHL input command sequence; that is, the escape mode was entered but not exited.
?E CFTSHL UNABLE TO EXECUTE PROCESS <i>f</i>	Prints when the CFT Shell encounters a nonexecutable file. <i>f</i> = Full pathname of the nonexecutable file.
?E CFTSHL UNABLE TO INITIATE COMMAND <i>g</i>	Prints when the CFTSHL encounters a zero-length file. <i>g</i> = Full pathname of the command that cannot be initiated.

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Table 2-5
Error Acknowledgements Produced
by the UNIX RTR Craft Shell
(UNIX RTR R1.5 and later) *(continued)*

Acknowledgement	Meaning
?E CFTSHL UNABLE TO MATCH COMMAND <i>h</i>	Prints as a result of entering an input command that does not exist in the current search directories. <i>h</i> = Full pathname of the nonexistent command name.
?E CFTSHL TERMINAL READING ERROR, ERRNO = <i>i</i>	Prints as a result of encountering a reading error in input read from a terminal. <i>i</i> = System error code (see System Error Codes Appendix, SYSERR-APP, in the OM manual)
?E CFTSHL UNABLE TO FORK PROCESS <i>j</i>	Prints when the CFTSHL cannot fork a new process to execute a command. <i>j</i> = Full pathname of the process that was not executed because of the fork failure.
?E MESSAGE IS NOT IN THE IM CATALOG	Indicates either an error in entering the command or a missing or incorrect entry in the IM catalog.

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Table 2-5
Error Acknowledgements Produced
by the UNIX RTR Craft Shell
(UNIX RTR R1.5 and later) *(continued)*

Acknowledgement	Meaning
NG 'EXC:UCL' INVALID IN PART MODE	Prints when an attempt is made to use the EXC:UCL command while the CFTSHL is operating in partial capability mode.
NG CFTSHL CANNOT EXECUTE 'EXC:UCL' ITSELF	Prints when the EXC:UCL command is entered twice in succession.
NG PREVIOUS COMMAND HAD A SYNTAX ERROR	Prints when the EXC:UCL command is used to try to force execution of a command that has a syntax error.
NG NO PREVIOUS COMMAND AVAILABLE	Prints when the EXC:UCL command is entered before another command has failed.
NG CFTSHL TERMINAL SECURITY VIOLATION	Prints when a command is entered from an unauthorized terminal.
\$T MESSAGE CANCELLED	Indicates that too much time elapsed while in help prompting mode. The input message has been canceled.
?E INVALID <i>k</i>	Input message syntax error. <i>k</i> = The part of the input message that the CFTSHL has identified as invalid.

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Table 2-5
Error Acknowledgements Produced
by the UNIX RTR Craft Shell
(UNIX RTR R1.5 and later) *(continued)*

Acknowledgement	Meaning
?E UNEXPECTED 'l' AFTER <i>m</i>	Input message syntax error. <i>l</i> = First invalid part of the message. <i>m</i> = The last valid part of the message.
?E CFTSHL HANGUP SIGNAL RECEIVED	The cftshl has received a SIGHUP.
NG BAD IM CATALOG	Corrupt or missing imcatalog; all input will be acknowledged with this message when this condition is true.

2.6.2 Input Message Catalog Database

In UNIX RTR R1.5 and later software, the Craft Shell and the Dialogue Shell (referred to jointly as the SHELL) use an Input Message Catalog Database to validate the contents of input messages entered at the maintenance (craft) terminal. The IM catalog database contains information about input message formats, keywords, valid argument values, input command authority groups, and full pathnames of the client programs invoked by the SHELL in response to input message requests. The IM catalog also contains information which indicates whether the SHELL or the client program generates the input message acknowledgement.

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2.6.3 Capability Modes

The SHELL operates in three different capability modes:

- Full
- Partial
- Limp

Full capability mode assumes that all 3B20D and 3B21D computers and application input messages are defined in the IM catalog database. In full capability mode, if an input message is not in the IM catalog database, it is impossible either to execute that message or to receive help for it. Partial capability mode also assumes that all input messages are defined in the catalog, yet input message requests are executable, but only if entered perfectly. You cannot obtain help in partial capability mode for any message not defined in the IM capability database. When there is a problem and the IM catalog database cannot be accessed, the SHELL operates in limp mode. In limp mode, help is not available for any messages, but the system will attempt to execute valid input message requests.

When the SHELL is initialized at boot time, it reports the capability mode and relevant IM syntax (PDS) via the REPT xxxxxx TERMINAL IN SERVICE output message, where xxxxxx may be either CFTSHL or DLGSHL (Dialogue).

When operating in full capability mode, the SHELL reports an error acknowledgement for any input message that is not represented in the IM catalog database. Consequently, any missing or erroneous entry in the IM catalog will cause the SHELL to reject an associated input message request, even if it is entered correctly.

You can force the SHELL, in full capability mode, to accept an input message request by entering the following command:

EXC:UCL;

immediately after the error acknowledgement. This command forces the shell to attempt to execute the previously entered command (if entered correctly). Note that this command will not direct the shell to run any other commands, nor will it work for invalid input messages.

2.7 Help Utility

The Help Utility of the SHELL provides assistance in entering and correcting PDS input messages. If you do not understand an error acknowledgement returned from the SHELL, you can enter a question mark (?) to get help. You can also get help by entering a ? at the end of a partial input message. In this case, the SHELL will interpret the ? at the end of an input message as a request for information about message format.

When help is requested on a console terminal with 25 lines or less, the SHELL erases the currently displayed page and displays a Status Summary Area (SSA) page. By doing this, enough space for message format and prompting information will be provided without scrolling off the screen. When the help session is concluded by either executing or canceling the input message, the SHELL returns the erased page to the screen.

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NOTE: Do not use the help facility while the Emergency Action Interface (EAI) page is displayed. When the EAI page is displayed, screen space cannot be fully utilized.

2.7.1 Levels of Help

Two levels of help are available for entering input messages:

- format guidance
- prompting mode

To receive general guidance about input message format, you can enter a question mark (?). This can be done either after receiving an error acknowledgement or while entering the message. If you request help while entering a message, the previously entered partial message is displayed after the help message so that you can finish entering the message. When receiving format guidance, all interfaces to the SHELL are the same except that you cannot backspace over the partial input message.

Prompting mode is an interactive form of help, which can be requested after format guidance help is received. To enter prompting mode, enter a second question mark (?). In prompting mode, the SHELL asks you to identify parameter names (keywords) or values. If you are prompted for a parameter requiring arguments, the SHELL will also ask for the arguments. After you identify the argument(s), the SHELL continues prompting for the remaining parameters.

Prompting mode continues until all items are completed, or until you press the DELETE key. In either case, the input message constructed during prompting is displayed. As with the format guidance help, you cannot backspace over the new message. At any point during prompting mode, you can do the following:

1. Press the carriage return to execute the currently displayed message.
2. Type a ? to request further prompting.
3. Press the delete key DELETE to delete/cancel the message.
4. Continue entering message data to complete the message.

The scope of help provided by the SHELL depends on when help is requested during message input. If a ? is entered when a parameter name is expected or if a required parameter was omitted, the help facility will display information pertaining to the rest of the input message. If a ? is entered when a parameter value is expected or if an invalid parameter value is given, the help facility will display information pertaining to that specific parameter only.

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The following lists summarize the capabilities of the help facility:

- Format guidance help
 - The first **?** pressed per message generates format information.
 - Any subsequent **?** causes the SHELL to enter prompting mode.
 - Upon exiting prompting mode, the currently constructed input message is displayed. You can proceed as if outside of the prompting mode, except that previously typed characters on the line may not be erased.
- Prompting mode
 - Any valid response is followed by a prompt for the next item. If there are no more message items, the SHELL exits prompting mode automatically.
 - Invalid responses are met with an error acknowledgement; the guidance prompt is repeated.
 - Pressing the **DELETE** key causes the SHELL to exit prompting mode at any time.

NOTE: The help facility is limited in its ability to verify the validity of responses. The facility will verify that a number falls within a specified range, but it cannot tell if the number is correct. The facility can verify that a password is of a certain length and made up of alphanumeric characters, but the facility cannot verify that this is the correct password. For filenames and pathnames, the facility will only verify that the filename or pathname is enclosed by leading and ending double quotes, and that the path begins with a "/" where a full pathname is required. It is up to the client processes to verify the correctness of the parameters passed to them.

2.7.2 Help Tutorial

This tutorial gives general examples of using the help facilities.

Example 1

This example shows how to request format help for an input message.

1. At the shell (<) prompt, enter

ALW:DMQ?

2. **RETURN** The current screen display is erased. The shell then displays the message format and explains how to proceed.

The message format is:

ALW:DMQ; a!

a is RUN or SRC b; must choose one

enter a new command OR? for more information

3. Type in:

? RETURN

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4. The shell will display:

enter RUN or SRC

5. Type in:

SRC

6. The shell will display:

SRC a

For a, enter ADP, ALL, or REX:

7. Type in:

ALL

8. The shell will display:

Append text, hit <CR> to execute, or hit <DEL> to reject
<ALW:DMQ;SRC ALL

9. The shell acknowledges your input, and redisplay the page erased.

Example 2

This example illustrates how to request help after encountering an error acknowledgment.

1. At the shell (<) prompt, you attempt to execute an incorrect message, such as:

ALW:DMQ;ALL!

2. The shell acknowledges the error and explains how to proceed.

?E - INVALID KEYWORD ALL
Enter a new command or ?
for more information

3. The shell prompts for input. To request help, enter

?

4. The current display page is erased. The shell displays the correct format and explains how to proceed.

The message format is:
ALW:DMQ;a!
a is RUN or SRC b;
must choose one.
Enter a new command or ?
for more info

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5. The shell prompts for input. Enter the corrected input message.

ALW:DMQ;SRC ALL!

6. The shell acknowledges the corrected message, and redisplay the page erased.

Example 3

This example illustrates how to request shell prompting for the argument value of a keyword.

1. The shell prompts for input. To request help, enter

ALW:DMQ:SRC?

2. The shell erases the current page and displays the message format and explains how to proceed.

The message format is:
ALW:DMW:SRC a!
Append text, hit ? for more
info, hit <CR> to execute,
or hit <DEL> to reject

3. The shell then redisplay the partial message.

ALW:DMQ:SRC_

4. To request further help, enter

?

5. The shell responds with the valid SRC arguments.

SRC a
for a: enter REX, ADP, or ALL:_

6. To select the ALL argument, enter

ALL

7. The shell exits prompting mode automatically and displays the constructed message:

Append text, hit <CR> to execute or
hit <DEL> to reject
ALW:DMQ:SRC ALL_

8. To execute the message, enter

9. The shell acknowledges the corrected message, and redisplay the page erased.

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Example 4

This example illustrates how to select a message format and the argument values of a keyword:

1. At the shell < prompt, request help by entering

TST:SPL?

2. The current display is erased. The shell displays the number of matches and then all TST:SPL message formats.

The input matches 2 messages

1) TST:SPL[(a[,b[,c[,d]]]])]!

2) TST:SPL[(a[,b[,c]])];RLS!

Enter a new command OR ?

for more information

3. To request further help, press

?

4. The shell prompts for a format.

enter the number of one of the
messages: _

5. To select format number one, enter

1

6. The shell displays the format for message number one.

The message format is:

TST:SPL[(a[,b[,c[,d]]]])]!

7. The shell prompts for the SPL arguments.

SPL[(a[,b[,c[,d]]]])]

for a: enter a number between

1 and 1000: _

8. To select 100, enter

100

9. The shell prompts for the variable *b*.

for b: enter a number between

1 and 1000: _

10. To enter an invalid response, enter

0

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11. The shell prompts for a valid response.

```
*INVALID*
for b: enter a number between
      1 and 1000:_
```

12. To select a response within the valid range, enter

```
5 RETURN
```

13. The shell prompts for the variable c.

```
for c: enter a number between
      0 and 255:_
```

14. To select a valid response, enter

```
15 RETURN
```

15. The shell prompts for the variable d.

```
for d: enter a number between
      1 and 430:_
```

16. To skip the last optional argument, press

```
RETURN
```

17. The shell exits prompting mode. It automatically displays the constructed message.

```
Append text, hit <CR> to execute or hit <DEL> to reject
TST:SPL(100-5-15)_
```

18. Press RETURN to execute the command. The shell acknowledges the entry and redisplay the page prior to the help mode.

Example 5

This example illustrates how to request the shell to prompt for keywords and argument values:

1. To request help at the shell < prompt, enter

```
INH:DMQ? RETURN
```

2. The current display is erased and the shell displays the message format.

```
The message format is: INH:DMQ:SRC a,[TINH b],[AINH c]! enter
a new command OR? for more information
```

3. To request further help, enter

```
? RETURN
```

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4. The shell supplies the required keyword and prompts for its argument.

required parm SRC has been supplied for a: enter REX, ADP, or ALL:_

5. To select the ALL parameter, enter

ALL

6. The shell prompts for the next argument.

do you want TINH (enter y or <CR> to skip):_

7. To skip the optional argument, enter

8. The shell prompts for the AINH argument.

do you want AINH (enter y or <CR> to skip):_

9. To select the AINH argument, enter

y

10. The shell prompts for the AINH argument variables.

for a: enter a number between
1 and 32767:_

11. To select 10, enter

10

12. The shell exits the prompting mode automatically and displays the constructed message.

Append text, hit <CR> to execute or hit <DEL> to reject
INH:DMQ:SRC ALL,AINH 10_

13. To execute the command as constructed, enter

14. The shell acknowledges the command and redisplay the page previously erased.

Example 6

This example illustrates how to use the key to cancel parts of a help session:

1. The shell prompts for input. To request help, enter

TST:SPL?

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2. The current page is erased. The shell displays the number of matches, then all TST:SPL message formats.

The input matches 2 messages 1)TST:SPL[(a[,b[,c][,d]])]!
2)TST:SPL[(a[,b[,c]])];RLS! enter a new command OR? for more information

3. To request help, enter

?

4. The shell prompts for a format:

enter the number of one of the messages: _

5. To select the first format, enter

1

6. The shell displays the selected format.

The message format is: TST:SPL[(a[,b[,c[,d]])]]!

7. The shell prompts for the format arguments:

SPL[(a[,b[,c[,d]])]] for a: enter a number between
1 and 1000: _

8. To select 100, enter

100

9. The shell prompts for the *b* variable argument.

for b: enter a number between
1 and 1000: _

10. To cancel the prompting mode, press

11. The shell exits prompting mode. It prompts for more input.

Prompting interrupted Append text, hit <CR> to execute, or hit
<DEL> to reject TST:SPL 100_

12. To cancel the entire message, enter:

13. The shell redisplay the erased page.

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Section 3

Input 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
ADD PAUTH	ADD:PAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ADD PCGRP	ADD:PCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ADD PROFL	ADD:PROFL	UNIX RTR R21.3, R21.11, R21.15 and later
ADD TAUTH	ADD:TAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ADD TCGRP	ADD:TCGRP	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	UNIX RTR R1.5, 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 and R6.4
ALW ERRCHK	ALW:ERRCHK-B	UNIX RTR R21.3, R21.11, R21.15 and later
ALW ERRINT	ALW:ERRINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW ERRSRC	ALW:ERRSRC	UNIX RTR R1.5, 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

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Message Name	Message ID	Generic
ALW HDWCHK	ALW:HDWCHK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW REX	ALW:REX-A	UNIX RTR R1.5 and R6.4
ALW REX	ALW:REX-B	UNIX RTR R21.3, R21.11, R21.15 and later
ALW SCSD	ALW:SCSD-A	UNIX RTR R1.5 only
ALW SCSD	ALW:SCSD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW SFTCHK	ALW:SFTCHK	UNIX RTR R1.5, 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
APPENDIX AUDIT	APP:AUD	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
APPLY OMDB	APPLY:OMDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD CUMEM	AUD:CUMEM-A	UNIX RTR R1.5, R6.4 and R21.3
AUD CUMEM	AUD:CUMEM-B	UNIX RTR R21.11, R21.15 and later
AUD CUSTAT	AUD:CUSTAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD ECD	AUD:ECD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD ECDOWN	AUD:ECDOWN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR	AUD:FMGR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD FSBLK	AUD:FSBLK-A	UNIX RTR R1.5 and R6.4

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Message Name	Message ID	Generic
AUD FSBLK	AUD:FSBLK-B	UNIX RTR R21.3, R21.11, R21.15 and later
AUD FSCMPT	AUD:FSCMPT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD FSLINK	AUD:FSLINK-A	UNIX RTR R1.5 and R6.4
AUD FSLINK	AUD:FSLINK-B	UNIX RTR R21.3, R21.11, R21.15 and later
AUD MMGR	AUD:MMGR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD MSGBUF	AUD:MSGBUF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD PMS	AUD:PMS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD PROAD	AUD:PROAD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CFR DUPLEXDISKS	CFR:DUPLEXDISKS	UNIX RTR R21.27 and later
CHG PAUTH	CHG:PAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CHG PROFL	CHG:PROFL	UNIX RTR R21.3, R21.11, R21.15 and later
CLR ACKDB	CLR:ACKDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 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-A	UNIX RTR R1.5 only
CLR FANALM	CLR:FANALM-B	UNIX RTR 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:MHD;MAEC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
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-A	UNIX RTR R1.5 and R6.4
CLR UTIL	CLR:UTIL-B	UNIX RTR R21.3, R21.11, R21.15 and later
CLR UTILFLAG	CLR:UTILFLAG-A	UNIX RTR R1.5 and R6.4
CLR UTILFLAG	CLR:UTILFLAG-B	UNIX RTR 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 and R21.3
CMPR MHD	CMPR:MHD-B	UNIX RTR R21.11 and R21.15
CMPR MHD	CMPR:MHD-C	UNIX RTR R21.17 and later
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
COPY DIFF MHD	COPY:DIFF;MHD-A	UNIX RTR R1.5, R6.4 and R21.3
COPY DIFF MHD	COPY:DIFF;MHD-B	UNIX RTR R21.11 and R21.15
COPY DIFF MHD	COPY:DIFF;MHD-C	UNIX RTR R21.17 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	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
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
DEL LOG	DEL:LOG-A	UNIX RTR R1.5 and R6.4
DEL LOG	DEL:LOG-B	UNIX RTR R21.3, R21.11, R21.15 and later
DEL PAUTH	DEL:PAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DEL PCGRP	DEL:PCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DEL PROFL	DEL:PROFL	UNIX RTR R21.3, R21.11, R21.15 and later
DEL TAUTH	DEL:TAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DEL TCGRP	DEL:TCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN CU	DGN:CU	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	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 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

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Message Name	Message ID	Generic
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	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN SCSDC	DGN:SCSDC	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
DUMP FILE DATA	DUMP:F;DATA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
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-A	UNIX RTR R1.5, R6.4 and R21.3
DUMP FILE PARTL	DUMP:F;PARTL-B	UNIX RTR 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	DUMP:MHD;BLK-A	UNIX RTR R1.5 only
DUMP MHD	DUMP:MHD;BLK-B	UNIX RTR R6.4, 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 and later
DUMP MHD	DUMP:MHD;VTO	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
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, 21.11, 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 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
END WHEN	END:WHEN	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, R21.11, 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
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

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Message Name	Message ID	Generic
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, R21.15 and 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	UNIX RTR R21.3, R21.11, R21.15 and later
EXC UCL	EXC:UCL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN DTIME	IN:DTIME	UNIX RTR R1.5, R6.4, R21.3, R21.11, 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 FILESYS DIR	IN:F;DIR	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 REMOTE REPT	IN:REM;REPT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE START	IN:REM;START	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE STOP	IN:REM;STOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN STIME	IN:STIME	UNIX RTR R1.5 only
IN XFER	IN:XFER	UNIX RTR R21.11, R21.15 and later

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Message Name	Message ID	Generic
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 and R6.4
INH ERRCHK	INH:ERRCHK-B	UNIX RTR R21.3, R21.11, R21.15 and later
INH ERRINT	INH:ERRINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH ERRSRC	INH:ERRSRC	UNIX RTR R1.5, 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	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH REX	INH:REX-A	UNIX RTR R1.5 and R6.4
INH REX	INH:REX-B	UNIX RTR R21.3, R21.11, R21.15 and later
INH SCSD	INH:SCSD-A	UNIX RTR R1.5 only
INH SCSD	INH:SCSD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH SFTCHK	INH:SFTCHK	UNIX RTR R1.5, R6.4, R21.3, 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, R21.3, R21.11, R21.15 and later
INIT UC	INIT:UC-A	UNIX RTR R1.5 and R6.4
INIT UC	INIT:UC-B	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

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Message Name	Message ID	Generic
INIT UMEM INIT UMEM	INIT:UMEM-A INIT:UMEM-B	UNIX RTR R1.5 only 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, R21.3 and R21.11
LOAD DFC PUMP	LOAD:DFC;PUMP-B	UNIX RTR R21.15 and later
LOAD DFC RAM	LOAD:DFC;RAM	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
LOAD MHD DEFECT	LOAD:MHD-A	UNIX RTR R1.5 only
LOAD MHD DEFECT	LOAD:MHD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
LOAD MHD FIRMWARE	LOAD:MHD;FIRM	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
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, R21.3, R21.11, R21.15 and later
OP AUDERR	OP:AUDERR	UNIX RTR R1.5, R6.4, 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 R6.4 only
OP DFC INFO	OP:DFC;INFO-B	UNIX RTR R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
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
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	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP GEN	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	UNIX RTR R1.5, R6.4, 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, R21.3, R21.11, R21.15 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
OP OOS	OP:OOS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP PMCR	OP:PMCR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
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-A	UNIX RTR R1.5 only
OP SCSD	OP:SCSD-B	UNIX RTR 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 STATUS 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
OP UTIL	OP:UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP VERSION	OP:VERSION	UNIX RTR R21.11, R21.15 and later

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Message Name	Message ID	Generic
ORD SCSD ORD SCSD	ORD:SCSD-A ORD:SCSD-B	UNIX RTR R1.5 only UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
RCV DMTECD RC	RCV:DMTE;RC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTECD VFY	RCV:DMTE;VFY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTSG RC	RCV:DMTS;RC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTSG VFY	RCV:DMTS;VFY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU BROWSE	RCV:M;BROWSE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU COMPAREDB	RCV:M;CMPRDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU CREATEECD	RCV:M;CREATEECD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU CREATESG	RCV:M;CREATESG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU EVOL	RCV:M;EVOL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU FDIFF	RCV:M;FDIFF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU KEYCMP	RCV:M;KEYCMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU KEYCOMM	RCV:M;KEYCOMM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU KEYS	RCV:M;KEYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU LOADF3B	RCV:M;LOADF3B	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU NEWDB	RCV:M;NEWDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU PRINTDB	RCV:M;PRINTDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU PRINTFRM	RCV:M;PRINTFRM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU RCVECD	RCV:M;RCVECD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU RCVSG	RCV:M;RCVSG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
RCV MENU TRANSGEN	RCV:M;TRANSGEN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU TREEBLD	RCV:M;TREEBLD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU VFYDFLT	RCV:M;VFYDFLT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RFT ABORT	RFT:ABORT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RFT BEGINPOST	RFT:BEGINPOST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RFT FDUMP	RFT:FDUMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RFT PRINT	RFT:PRINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
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-A	UNIX RTR R1.5 only
RMV DFC	RMV:DFC-B	UNIX RTR 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 R1.5 only
RMV MHD	RMV:MHD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
RMV MT	RMV:MT	UNIX RTR R1.5, R6.4, 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

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Message Name	Message ID	Generic
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	UNIX RTR R6.4, R21.3, R21.11, 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
RMV TTY	RMV:TTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV TTYC	RMV:TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RNM PSSWD	RNM:PSSWD	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, R21.11, R21.15 and later
RST DFC	RST:DFC-A	UNIX RTR R1.5 only
RST DFC	RST:DFC-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
RST DUI	RST:DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R1.15 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, R21.15 and later
RST IOP	RST:IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST MHD	RST:MHD-A	UNIX RTR R1.5 only
RST MHD	RST:MHD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

SEE PROPRIETARY NOTICE ON COVER PAGE

Message Name	Message ID	Generic
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	UNIX RTR R6.4, 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
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-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.27
SET CLK	SET:CLK-B	UNIX RTR R21.29 and later
SET IODRV	SET:IODRV-A	UNIX RTR R1.5 and R6.4
SET IODRV	SET:IODRV-B	UNIX RTR R21.3, R21.11, R21.15 and later
STOP AUD	STOP:AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP BKDISK	STOP:BKDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP CMPR MHD	STOP:CMPR;MHD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
STOP COPY DIFF	STOP:COPY;DIFF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP DCI	STOP:DCI	UNIX RTR R21.3, 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:E;ANY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP EXC USER	STOP:E;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
SW CU	SW:CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
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 ACKU	TST:ACKU	UNIX RTR R1.5 only
TST ALT	TST:ALT	UNIX RTR R1.5 only
TST SHL	TST:SHL	UNIX RTR R1.5 only
TST SPL	TST:SPL	UNIX RTR R1.5 only
UPD APPLY BYTER	UPD:APPLY;BYTER-A	UNIX RTR R1.5, R6.4 and R21.3
UPD APPLY BYTER	UPD:APPLY;BYTER-B	UNIX RTR R21.11, R21.15 and later
UPD APPLY FILER	UPD:APPLY;FILER-A	UNIX RTR R1.5, R6.4 and R21.3
UPD APPLY FILER	UPD:APPLY;FILER-B	UNIX RTR R21.11, R21.15 and later
UPD APPLY FUNCRC	UPD:APPLY;FUNCRC-A	UNIX RTR R1.5, R6.4 and R21.3
UPD APPLY FUNCRC	UPD:APPLY;FUNCRC-B	UNIX RTR R21.11, R21.15 and later
UPD APPLY UNIXCMD	UPD:APPLY;UNIX	UNIX RTR R21.11, R21.15 and later
UPD AUTO	UPD:AUTO	UNIX RTR R21.11, R21.15 and later
UPD AUTOCHK	UPD:AUTOCHK	UNIX RTR R21.11, R21.15 and later

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Message Name	Message ID	Generic
UPD AUTOPROFILE	UPD:AUTOPROFILE	UNIX RTR R21.11, R21.15 and later
UPD AUTOSCHED	UPD:AUTOSCHED	UNIX RTR R21.11, R21.15 and later
UPD BKOUT	UPD:BKOUT-A	UNIX RTR R1.5, R6.4 and R21.3
UPD BKOUT	UPD:BKOUT-B	UNIX RTR R21.11, R21.15 and later
UPD BLDBOOT	UPD:BLDBOOT-A	UNIX RTR R1.5, R6.4 and R21.3
UPD BLDBOOT	UPD:BLDBOOT-B	UNIX RTR R21.11, R21.15 and later
UPD BLOCK	UPD:BLOCK	UNIX RTR R21.11, R21.15 and later
UPD BOLO	UPD:BOLO	UNIX RTR R21.11, R21.15 and later
UPD CHG APPLY	UPD:CHG;APPLY	UNIX RTR R21.11, R21.15 and later
UPD CHG BKOUT	UPD:CHG;BKOUT	UNIX RTR R21.11, R21.15 and later
UPD CHG INST	UPD:CHG;INST	UNIX RTR R21.11, R21.15 and later
UPD CHG SKTM	UPD:CHG;SKTM	UNIX RTR R21.11, R21.15 and later
UPD CLR	UPD:CLR-A	UNIX RTR R1.5, R6.4 and R21.3
UPD CLR	UPD:CLR-B	UNIX RTR R21.11, R21.15 and later
UPD CLRBWM	UPD:CLRBWM	UNIX RTR R21.11, R21.15 and later
UPD CSCANS REPORT	UPD:CSCANS;REPT	UNIX RTR R21.11, R21.15 and later
UPD CSCANS STOP	UPD:CSCANS;STOP	UNIX RTR 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 DISPLYUPD	UPD:DISPLYUPD	UNIX RTR R21.11, R21.15 and later
UPD EXALL	UPD:EXALL	UNIX RTR R21.11, R21.15 and later

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Message Name	Message ID	Generic
UPD EXNXT	UPD:EXNXT	UNIX RTR R21.11, R21.15 and later
UPD EXPAND	UPD:EXPAND	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, R21.15 and later
UPD GEN RESTORE	UPD:G;RESTR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GENP	UPD:GENP	UNIX RTR R21.11, R21.15 and later
UPD INITPW	UPD:INITPW	UNIX RTR R21.11, R21.15 and later
UPD NXTWNDW	UPD:NXTWNDW	UNIX RTR R21.11, R21.15 and later
UPD OFC	UPD:OFC	UNIX RTR 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 PRINT	UPD:PRINT	UNIX RTR R21.11, R21.15 and later
UPD PRINT BWMFILE	UPD:PRINT;BWM	UNIX RTR R21.11, R21.15 and later
UPD PRINT SKTM	UPD:PRINT;SKTM	UNIX RTR R21.11, R21.15 and later
UPD PRVWNDW	UPD:PRVWNDW	UNIX RTR R21.11, R21.15 and later
UPD PURGE	UPD:PURGE	UNIX RTR R1.5, R6.4 and R21.3
UPD RCVRY	UPD:RCVRY	UNIX RTR R21.11, R21.15 and later
UPD REBOOT	UPD:REBOOT	UNIX RTR R21.11, R21.15 and later
UPD RECLAIM	UPD:RECLAIM	UNIX RTR R1.5, R6.4 and R21.3

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Message Name	Message ID	Generic
UPD RECOVERY	UPD:RECOVERY	UNIX RTR R21.11, R21.15 and later
UPD REDUCE	UPD:REDUCE	UNIX RTR R21.11, R21.15 and later
UPD RESET	UPD:RESET-A	UNIX RTR R1.5, R6.4 and R21.3
UPD RESET	UPD:RESET-B	UNIX RTR R21.11, R21.15 and later
UPD START EASYBWM	UPD:START;EASY	UNIX RTR R21.11, R21.15 and later
UPD STOP EXC	UPD:STOP;EXC	UNIX RTR R21.11, R21.15 and later
UPD STOP SOAK	UPD:STOP;SOAK	UNIX RTR R21.11, R21.15 and later
UPD UPDCON	UPD:UPDCON	UNIX RTR R21.11, R21.15 and later
UPD UPDDSPY	UPD:UPDDSPY	UNIX RTR R21.11, R21.15 and later
UPD UPNAME	UPD:UPNAME	UNIX RTR R21.11, R21.15 and later
UPD VERSION	UPD:VERSION	UNIX RTR R21.11, R21.15 and later
UPD VFY	UPD:VFY-A	UNIX RTR R1.5, R6.4 and R21.3
UPD VFY	UPD:VFY-B	UNIX RTR R21.11, R21.15 and later
UPD VFYBWM	UPD:VFYBWM	UNIX RTR R21.11, R21.15 and later
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, R21.3, R21.11, R21.15 and later
VFY PAUTH	VFY:PAUTH-A	UNIX RTR R1.5 and R6.4
VFY PAUTH	VFY:PAUTH-B	UNIX RTR 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

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Message Name	Message ID	Generic
VFY TAPE	VFY:TAPE-B	UNIX RTR R21.15 and later
VFY TAUTH	VFY:TAUTH	UNIX RTR R1.5, R6.4, R21.3, R2.11, 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 Input

1. PURPOSE

Refreshes the active (incore) output message data base (OMDB) from the OMDB disk file.

2. FORMAT

ACTV:OMDB!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

IP = In Progress. Followed by the ACTV-OMDB output message.

5. REFERENCES

Input Messages
OP:OMDB
UPD:OMDB

Output Message
ACTV-OMDB

Practice 254-341-230 *Craft Interface Software Subsystem Description Lucent Technologies 3B20D
Computer*

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ID ADD:PAUTH
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Adds a new user with its related password to the personal authority (PAUTH) database. It embeds the password into the authority record and links the password to its user identity.

2. FORMAT

ADD:PAUTH:IDENT "a", PSSWDPFX "b", PSSWDSFX "c"!

3. EXPLANATION OF MESSAGE

- a* = Identity of the person or group that uses the password prefix and suffix, in one to eight letters and /or digits.
- b* = Password prefix (PSSWDPFX) in three letters and /or digits.
- c* = Password suffix (PSSWDSFX) in six to 13 characters.

4. SYSTEM RESPONSE

- OK = Good. Password and identity added to database.
- RL = Retry Later.
 - AUTHORITY ADMINISTRATION UNDER UPDATE
Authority information is currently being updated.
- NG = No Good.
 - PERSON IDENTITY NOT UNIQUE
The given person identity already exists in the personal authority administration.
 - PASSWORD PREFIX NOT UNIQUE
The given password prefix already exists in the password authority administration.
 - UNABLE TO ACCESS AUTHORITY ADMINISTRATION
Password or personal authority information is inaccessible.
 - PASSWORD PREFIX ILLEGAL LENGTH
The given password prefix is not equal to three characters in length.
 - PASSWORD SUFFIX ILLEGAL LENGTH
The given password suffix is less than six characters or greater than 13 characters in length.

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5. REFERENCES

Input Messages

CHG:PAUTH

DEL:PAUTH

VFY:PAUTH

RNM:PSSWD

Output Message

VFY-PAUTH

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ID ADD:PCGRP
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Format 1 associates the command groups (COMGRs) with a person identity (IDENT), thus allowing a user to access specific groups of commands. The IDENT must already exist in the personal authority (PAUTH) database.

Format 2 associates a profile (PROFL) with an IDENT, thus allowing a user access to all the commands associated with a set of command groups. The IDENT must already exist in the PAUTH database.

2. FORMAT

This message has two formats.

[1] **ADD:PCGRP:IDENT "a", COMGR b!**

[2] **ADD:PCGRP:IDENT "a", PROFL "c"!**

3. EXPLANATION OF MESSAGE

- a* = Identity of the person or group in one to eight letters and /or digits.
- b* = Command group.
- c* = A profile name which has been previously created, but not assigned to this user.

4. SYSTEM RESPONSE

- OK = Good. Command group added to database.
- RL = Retry Later.
 - AUTHORITY ADMINISTRATION UNDER UPDATE
Authority information is currently being updated.
- NG = No Good.
 - NON-EXISTENT PERSON IDENTITY
The given person identity does not exist in the personal authority administration.
 - NON-EXISTENT PROFILE IDENTITY
The given profile does not exist in the personal authority administration.
 - COMMAND GROUP ALREADY ASSIGNED TO THIS PERSON
The given command group has already been assigned to this person identity.

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- UNABLE TO ACCESS AUTHORITY ADMINISTRATION
Person authority information is inaccessible.
- PASSWORD ENHANCEMENT NOT ACTIVATED
The **PROFL** option with this command is valid only for applications running with the password enhancement feature.

5. REFERENCES

Input Messages

ADD:PAUTH
CHG:PAUTH
DEL:PAUTH
DEL:PCGRP
RNM:PSSWD
VFY:PAUTH
VFY:PCGRP

Output Messages

VFY-PAUTH
VFY-PCGRP

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ID ADD:PROFL
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Adds a new profile to the list of user profiles. A profile is a set of command groups. A maximum of 64 profiles are allowed. These profiles can later be assigned to individual users.

2. FORMAT

ADD:PROFL, IDENT "a"!

3. EXPLANATION OF MESSAGE

a = Identifying name of the profile to be added to the database. A maximum of eight characters may be used.

4. SYSTEM RESPONSE

OK = Good. Profile successfully added to the database.

NG = No Good.

— MAXIMUM NUMBER OF PROFILES EXCEEDED
— PROFILE IDENTITY NOT UNIQUE
— UNABLE TO ACCESS PROFILE ADMINISTRATION
— PASSWORD ENHANCEMENT NOT ACTIVATED

This command is valid only for applications running with the password enhancement feature enabled.

RL = Retry Later.

— PROFILE ADMINISTRATION UNDER UPDATE

5. REFERENCES

Input Messages

ADD:PCGRP

CHG:PROFL

DEL:PCGRP

DEL:PROFL

VFY:PCGRP

VFY:PROFL

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Output Messages
VFY-PCGRP
VFY-PROFL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ADD:TAUTH
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Adds a terminal to the terminal authority (TAUTH) database.

2. FORMAT

ADD:TAUTH:TERM "a"!

3. EXPLANATION OF MESSAGE

a = Terminal identity in four characters, starting with "tty".

4. SYSTEM RESPONSE

OK = Good. Terminal identity added to database.

RL = Retry Later.

— AUTHORITY ADMINISTRATION UNDER UPDATE
Authority information is currently being updated.

NG = No Good.

— TERMINAL IDENTITY ALREADY EXISTS

The given terminal identity already exists in the terminal authority administration.

— INVALID TERMINAL IDENTITY

The given terminal identity is either not four characters in length or does not start with "tty".

— UNABLE TO ACCESS AUTHORITY ADMINISTRATION

Password or personal authority information is inaccessible.

5. REFERENCES

Input Messages

DEL:TAUTH

VFY:TAUTH

Output Message

VFY-TAUTH

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ID ADD:TCGRP
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Associates a command group (COMGR) with a terminal identity (IDENT), thus allowing a user to access only specific groups of commands from that terminal. The IDENT must already exist for the terminal command group (TCGRP) in the terminal authority (TAUTH) database.

2. FORMAT

ADD:TCGRP:IDENT "a", COMGR b!

3. EXPLANATION OF MESSAGE

a = Terminal identity in four characters, starting with "tty".
b = Command group.

4. SYSTEM RESPONSE

OK = Good. Command group added to database.
RL = Retry Later.
— AUTHORITY ADMINISTRATION UNDER UPDATE
Authority information is currently being updated.
NG = No Good.
— INVALID TERMINAL IDENTITY
The given terminal identity is either not four characters in length or does not start with "tty".
— NON-EXISTING TERMINAL IDENTITY
The given terminal identity does not exist in the terminal authority administration.
— COMMAND GROUP ALREADY ASSIGNED TO THIS TERMINAL
The given command group has already been assigned to this terminal identity.
— UNABLE TO ACCESS AUTHORITY ADMINISTRATION
Terminal authority information is inaccessible.

5. REFERENCES

Input Messages
ADD:TAUTH
DEL:TAUTH
DEL:TCGRP
VFY:TAUTH
VFY:TCGRP

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Output Messages
VFY-TAUTH
VFY-TCGRP

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ID ALW:AUD
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Allows the routine execution of one or more audits controlled by the system integrity monitor (SIM) that were previously inhibited. Entering the ALW:AUD input message clears one or more audit inhibits previously set to the manually inhibited or automatically inhibited state.

Separate inhibit states are provided for:

- All audits. When the inhibit state for ALL audits is set, routine audit scheduling is completely turned off. Entering the ALW:AUD input message with the ALL option reinitializes the audit control subsystem and turns on routine audit scheduling, but it has no effect on the inhibit states of individual audits.
- Each audit, identified by audit name and member number. When an audit is inhibited either manually or automatically, it is not scheduled to run routinely or in response to a software request.
- Each instance of an audit. One instance of an audit may be inhibited while other instances are allowed to run routinely.

Audit inhibit states may be displayed by entering the OP:AUD input message.

2. FORMAT

ALW:AUD:{ALL|a[b]|a c,INS "d"}!

3. EXPLANATION OF MESSAGE

ALL = Specifies all audits controlled by SIM.

Clears a master inhibit state which is independent of the inhibit states for individual audits. Causes SIM to attempt to initialize the audit control system if it has not been successfully initialized.

If the control record in the equipment configuration data base for SIM has been modified, ALL causes SIM to reinitialize its internal control parameters according to the new content of the control record.

a = Audit name. Computer audit names are listed in the input Member Numbers Appendix, MEM-NUM-APPB.

If a is specified without b, all members of the audit will be allowed.

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- b* = Member number (see the input Member Numbers Appendix, MEM-NUM-APPB). May be specified as a single number or a list of numbers. See the User Guidelines in this manual for instructions on entering lists of numbers.
- c* = Single member number (see the input Member Numbers Appendix, MEM-NUM-APPB).
- d* = Instance name.

4. SYSTEM RESPONSE

See the appendix, System Responses for Audit System Input Messages, AUD.

5. REFERENCES

Input Appendixes
AUD
MEM-NUM-APPB

Input Messages
INH:AUD
OP:AUD

Output Message
ALW-AUD
OP-AUD

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

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ID ALW:CONFLOG
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Allows logging of all errors for a specified computer unit and any units beneath it that are reported to CONFIG. Error logging continues until the INH:CONFLOG input message is executed.

2. FORMAT

ALW:CONFLOG;*a b*!

3. EXPLANATION OF MESSAGE

- a* = Unit name, as specified in the unit control block (UCB). Computer unit names are listed in the Input Member Numbers Appendix, MEM-NUM-APPC, Table C.
- b* = Unit number, as specified in the UCB. See the Input Member Numbers Appendix, MEM-NUM-APPC, Table C.

4. SYSTEM RESPONSE

- ?I = Message syntax is invalid or the unit name or number does not exist in the equipment configuration database (ECD).
- OK = Good. Request completed.
- PF = Printout Follows. Followed by an ALW-CONFLOG output message.
- RL = Retry Later. ECD access failure.

5. REFERENCES

Input Appendix
MEM-NUM-APPC

Input Message
INH:CONFLOG

Output Message
ALW-CONFLOG

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

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ID ALW:DMQ
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Allows previously inhibited or suspended sources to send automatic maintenance requests to the computer maintenance input request administrator (MIRA).

Format 1 reverses the effect of an inhibit source message (INH:DMQ) for a specified source of automatic maintenance requests.

Format 2 is valid only while the execution of deferred maintenance requests is suspended during system recovery. It allows execution of deferred maintenance requests during system recovery.

2. FORMAT

This message has two formats.

[1] **ALW:DMQ;SRC a!**

[2] **ALW:DMQ;RUN!**

3. EXPLANATION OF MESSAGE

a = Three-character source name. Computer source names are:

- ADP — Automatic diagnostic process.
- ALL — Allows all automatic maintenance requests by clearing the inhibited sources.
- REX — Routine exerciser.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by an ALW-DMQ output message.

RL = Retry Later. The system is in an overload condition.

?I = General syntax error, followed by the parameter position and one of the following reasons.

- EXTRA KEYWORD — Duplicate or extraneous keywords were input.
- MISSING KEYWORD — A required keyword is missing from the input.
- INVALID KEYWORD — The keyword in the stated parameter position is not a valid keyword.

SEE PROPRIETARY NOTICE ON COVER PAGE

?D = General syntax error in the data field, followed by the parameter position and one of the following reasons.

INVALID KEYWORD — The keyword in the stated parameter is not a valid keyword.

?E = Input error of undetermined type.

5. REFERENCES

Input Messages

INH:DMQ

OP:DMQ

Output Messages

ALW-DMQ

OP-DMQ

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:EAIINT
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Allows the logging and processing of emergency action interface (EAI) error interrupts from the 3B21D computer control unit (CU) specified in the identification field. If a CU is not specified with the input command, EAI error interrupts for both CUs are allowed.

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

2. FORMAT

This message has two formats.

[1] **ALW:EAIINT!**

[2] **ALW:EAIINT;CU a!**

3. EXPLANATION OF MESSAGE

a = CU number 0 or 1.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the ALW:EAIINT output message.

?I - INPUT ERROR = Identification field error.

5. REFERENCES

Input Messages
ALW:ERRCHK
INH:EAIINT
OP:ERRCHK

Output Messages
ALW-EAIINT
INH-EAIINT
OP-ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:ERRCHK-A
GENERIC UNIX RTR R1.5 and R6.4
TYPE Input

1. PURPOSE

Allows the logging and processing of all computer error sources. This message causes the inhibit administrator to set the inhibit status to allowed for all computer inhibit sources. These include HDWCHK, SFTCHK, ERRINT, and the ERRSRC representing the control unit (CU) complexes.

2. FORMAT

ALW:ERRCHK!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by ALW-ERRCHK output message.
?I = Identification field error.

5. REFERENCES

Input Messages

ALW:ERRINT
ALW:ERRSRC
ALW:HDWCHK
ALW:SFTCHK
INH:ERRCHK
OP:ERRCHK

Output Messages

ALW-ERRCHK
INH-ERRCHK
OP-ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:ERRCHK-B
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Allows the logging and processing of all computer error sources. This message causes the inhibit administrator to set the inhibit status to allow for all computer inhibit sources. These include HDWCHK, SFTCHK, EAIINT, ERRINT, and the ERRSRC representing the control unit (CU) complexes.

NOTE: The 3B20D computer CUs do not have emergency action interface (EAI) error interrupts (EAIINT).

2. FORMAT

ALW:ERRCHK!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the ALW-ERRCHK output message.
?I = Identification field error.

5. REFERENCES

Input Messages

ALW:EAIINT
ALW:ERRINT
ALW:ERRSRC
ALW:HDWCHK
ALW:SFTCHK
INH:ERRCHK
OP:ERRCHK

Output Messages

ALW-ERRCHK
INH-ERRCHK
OP-ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:ERRINT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests that the logging and processing of error interrupts attached to the unit specified in the identification field be allowed. If a unit name is not specified with the input command, then error interrupts for all computer units are allowed.

2. FORMAT

ALW:ERRINT[;*a b[, c d]*]!

3. EXPLANATION OF MESSAGE

a = Unit name. Computer unit names are listed in the Member Numbers Appendix, MEM-NUM-APPC, Table C.

NOTE: Allowing a control unit (CU) in an active/standby duplex configuration allows both CUs since they must be kept in identical states.

b = Unit number. (See Member Numbers Appendix, MEM-NUM-APPC, Table C.)

c = Subunit name, if *a*=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-APPD, Table D.)

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by ALW-ERRINT output message.

?I = Identification field error. Possibly indicates the unit name and number specified cannot be found in the data base.

NG = No Good. Indicates unit name and number specified was found in the data base, but is unequipped.

5. REFERENCES

Input Appendixes
MEM-NUM-APPC
MEM-NUM-APPD

Input Messages
ALW:ERRCHK
INH:ERRINT
OP:ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
ALW-ERRINT
INH-ERRINT
OP-ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:ERRSRC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests that the logging and processing of errors specific to the pseudo-nodes representing the computer control unit (CU) communities be allowed.

This message causes the inhibit administrator to set the inhibit status to allowed for the CU pseudo-nodes.

2. FORMAT

ALW:ERRSRC [AM]!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by ALW-ERRSRC output message.

?I = Identification field error.

5. REFERENCES

Input Messages

ALW:ERRCHK

INH:ERRSRC

OP:ERRCHK

Output Messages

ALW-ERRSRC

INH-ERRSRC

OP-ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID ALW:F;ACCESS
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Changes the access permissions of a specific file. Permissions allow the owner, group, and others to read, write, and execute a file.

****CAUTION****

Incorrect permission values can prevent the system from accessing needed files or executing commands and processes. The correct or incorrect permission values are determined by the file type. For example; if the execution bits were removed from the command "LS", then the "LS" could not be invoked by the Unix shell.

2. FORMAT

ALW:FILESYS:ACCESS *a*, FN "*b*"!

3. EXPLANATION OF MESSAGE

- a* = A digit giving access permissions for owner, group and others, in that order, should be specified from the list provided below.
- 0 — No permission.
 - 1 — Execute (search in directory) only.
 - 2 — Write only.
 - 3 — Write and execute (search).
 - 4 — Read only.
 - 5 — Read and execute (search).
 - 6 — Read and write.
 - 7 — Read, write, and execute (search).
- b* = Full pathname of the file or directory. See the User Guidelines section of this manual for definitions of pathname, file, and directory.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by the ALW-FILESYS, ACCESS output message.

5. REFERENCES

Input Messages
ALW:F;OWNER
OP:ST;LISTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
ALW-F, ACCESS
OP-ST, LISTDIR

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:F;MOUNT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Allows a removable file system to be mounted.

2. FORMAT

ALW:FILESYS:MOUNT, FN "a", BSDIR "b"[, RO][, AUD]!

3. EXPLANATION OF MESSAGE

- a* = Special device filename of the file system to be mounted. See the User Guidelines in this manual for definitions of special device name and file system.
- b* = The base directory of the mounted file system, from which all file names in that file system must descend.
- RO** = File system is to be mounted read only.
- AUD** = File manager is to audit the file system prior to mounting it.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by the ALW-FILESYS, MOUNT output message and a PRM output message.

5. REFERENCES

Input Messages
INH:F;UMOUNT
OP:ST;FILESYS

Output Messages
ALW-F, MOUNT
OP-ST, FILESYS

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

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID ALW:F;OWNER
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Changes the owner and group of a specific file.

****CAUTION****

Incorrect owner specifications can prevent the system from accessing
needed files.

2. FORMAT

ALW:FILESYS:OWNER "a", FN "b"!

3. EXPLANATION OF MESSAGE

- a* = User ID of the new owner of the file.
- b* = Pathname of the file. See the User Guidelines section in this manual
for definitions of pathname, file and directory.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by the ALW-FILESYS, OWNER output
message.

5. REFERENCES

Input Message
ALW:F;ACCESS

Output Message
ALW-F, OWNER

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:HDWCHK
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Sets the system status register such that a control unit (CU) switch can be implemented as a normal fault recovery procedure, thereby allowing a switch to the standby computer control unit when a fault occurs in the active computer control unit.

2. FORMAT

ALW:HDWCHK!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the ALW-HDWCHK output message.
?I = Identification field error.

5. REFERENCES

Input Messages
ALW:ERRCHK
INH:HDWCHK
OP:ERRCHK

Output Messages
ALW-HDWCHK
INH-HDWCHK
OP-ERRCHK

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:REX-A
GENERIC UNIX RTR R1.5 and R6.4
TYPE Input

1. PURPOSE

Allows routine exercise (REX) for one or more hardware communities. A hardware community consists of a major device controller and its associated subdevices.

2. FORMAT

ALW:REX:{a[b]|ALL}!

3. EXPLANATION OF MESSAGE

a = Unit name of a major community controller. Applications may add additional major controllers which may be allowed by this command. The computer controllers are:

CU — Control unit.

DFC — Disk file controller.

NOTE: In all RTR releases, REX is permanently inhibited from DFCs for reliability reasons. The REX permanent inhibit from DFCs is not affected by this command. In later RTR releases, DFC is not a valid unit name for this command.

IOP — Input/output processor.

b = Unit number (see the Member Numbers Appendix, Table C, MEM-NUM-APPC). If not specified, then all controllers with the specified unit name are allowed.

ALL = Clear the REX inhibits for all major community controllers.

4. SYSTEM RESPONSE

OK = Good. REX is allowed for the unit(s) specified.

?D = Data field error.

RL = Retry later.

5. REFERENCES

Input Appendix
MEM-NUM-APPC

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

ALW:DGN
ALW:DMQ
INH:DGN
INH:DMQ
INH:REX
OP:DGN
OP:DMQ
OP:REXINH

Output Messages

OP-DGN
OP-DMQ
OP-REXINH

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:REX-B
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Allows routine exercise (REX) for one or more hardware communities by clearing the REX temporary inhibit(s). A hardware community consists of a major device controller and its associated subdevices. If a hardware community has REX permanently inhibited, its REX temporary inhibit is not available.

2. FORMAT

ALW:REX:{a[b]|ALL}!

3. EXPLANATION OF MESSAGE

- a* = Unit name of a major community controller. Applications may add additional major controllers which may be allowed by this command. The computer controllers are:
- CU — Control unit.
 - DCI — Dual serial channel/computer interconnect.
 - IOP — Input/output processor.
- b* = Unit number (see the Input Member Numbers Appendix, MEM-NUM-APPC, Table C). If not specified, then all controllers with the specified unit name are allowed.
- ALL** = Clear the temporary REX inhibits for all major community controllers that are not permanently inhibited from REX.

4. SYSTEM RESPONSE

- OK = Good. REX is allowed for the unit specified, or for at least one of the units specified.
- NG = No Good. REX is permanently inhibited for the unit specified, or for all the units specified.
- ?D = Data field error.
- PF = Printout follows. Followed by an ALW-REX output message.
- RL = Retry later. The database manager or a database record could not be opened, try again at a later time. If this persists, seek technical assistance.

5. REFERENCES

Input Appendix
MEM-NUM-APPC

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

ALW:DMQ
INH:DMQ
INH:REX
OP:DMQ
OP:REXINH

Output Messages

ALW-REX
OP-DMQ
OP-REXINH

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:SCSD-A
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Allows transitions of a scanner and signal distributor (SCSD) scan point to be reported. Scan points can be identified by physical location (as in Format 1) or by logical address (as in Format 2).

2. FORMAT

[1] **ALW:SCSD;UNIT** *a*: **PT** {*b*|(*b*,*b*[,*b*,*b*,*b*,*b*,*b*,*b*])}!

[2] **ALW:SCSD;GRPN** *c*, **DUPIID** *d*: **PT** {*e*|(*e*,*e*[,*e*,*e*,*e*,*e*])}!

3. EXPLANATION OF MESSAGE

- a* = SCSD unit member number (0-16).
b = Physical scan point number on an SCSD (0-47).
c = Name of the logical SCSD group. The computer logical scan groups are:

FANALM0
FANALM1
FANACU0
FANACU1
PDF0
PRSWCU0
PRSWCU1
PRSWIOP0
PRSWIOP1
PRSWDFC0
PRSWDFC1
PRSWMHD0
PRSWMHD1
PRSWPD0
PTSWROP
PTSWMCR

The imcatlg will not recognize any other logical scan groups. If an unrecognized logical scan group is used in the input message, the EXC:UCL command must be entered immediately following the message to cause the Craft Shell to accept the input message, thereby allowing the SCSD software to process and execute this input message.

- d* = Duplex point ID (0 or 1).

SEE PROPRIETARY NOTICE ON COVER PAGE

e = Number of a point within a logical group (0-5).

4. SYSTEM RESPONSE

NG = No good. The SCSD administrator process is not active; no communication with SCSD points is possible.

PF = Printout follows. Followed by an ALW-SCSD output message.

RL = Retry later.

5. REFERENCES

Input Messages

EXC:UCL
INH:SCSD
OP:SCSD

Output Messages

ALW-SCSD
RCVRY-SCSDC
REPT-FAN, INHIBIT
REPT-SCSDC

Practice 254-301-110 *Input-Output Processor Peripheral Controllers 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*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:SCSD-B
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Allows transitions of a scanner and signal distributor (SCSD) scan point to be reported. Scan points can be identified by physical location (as in Format 1) or by logical address (as in Format 2).

2. FORMAT

This message has two formats.

- [1] **ALW:SCSD;UNIT** *a*: **PT** {*b*|(*b*,*b*[,*b*,*b*,*b*,*b*,*b*,*b*...])}!
[2] **ALW:SCSD;GRPN** "*c*", **DUPIID** *d*: **PT** {*e*|(*e*,*e*[*e*,*e*,*e*,*e*])}!

3. EXPLANATION OF MESSAGE

- a* = SCSD unit member number (0-16).
b = Physical scan point number on an SCSD (0-47).
c = Name of the logical SCSD group. Examples are:

FANALM0
FANALM1
FANACU0
FANACU1
PDF0
PRSWCU0
PRSWCU1
PRSWIOP0
PRSWIOP1
PRSWDFC0
PRSWDFC1
PRSWMHD0
PRSWMHD1
PRSWPD0
PTSWROP
PTSWMCR

- d* = Duplex point ID (0 or 1).
e = Number of a point within a logical group (0-5).

SEE PROPRIETARY NOTICE ON COVER PAGE

4. SYSTEM RESPONSE

NG = No good. The SCSD administrator process is not active; no communication with SCSD points is possible.

PF = Printout follows. Followed by an ALW-SCSD output message.

RL = Retry later.

5. REFERENCES

Input Messages

INH:SCSD

OP:SCSD

Output Messages

ALW-SCSD

RCVRY-SCSDC

REPT-FAN, INHIBIT

REPT-SCSDC

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation* Lucent Technologies 3B20D Model 1 Computer

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:SFTCHK
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Allows the software error handling routines to incorporate system initialization into their error recovery procedures as a means of handling computer software sanity problems.

2. FORMAT

ALW:SFTCHK!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by an ALW-SFTCHK output message.
?I = Identification field error.

5. REFERENCES

Input Messages

ALW:ERRCHK
INH:SFTCHK
OP:ERRCHK

Output Messages

ALW-SFTCHK
INH-SFTCHK
OP-ERRCHK

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SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID ALW:UMEM
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Causes the computer generic access package (GRASP) transfer trace to start monitoring the flow of execution, as previously set up with an INIT:UMEM message. The transfer trace goes into the running state with successful completion of the message. This message can be used either as an immediate action, or it can be used in the action list of a WHEN command.

****CAUTION****

Use of this GRASP capability can degrade system performance. It should not be used without expert technical assistance.

2. FORMAT

ALW:UMEM{/|!}

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

?I = General syntax error.
IP = In progress. The message has been added to the WHEN action list.
NG = No good. No trace is defined.
PF = Printout follows. Followed by an ALW-UMEM output message.
RL = Retry later or wait for the previous OP:UMEM or OP:UMEM;MLH to complete. The system is in an overload condition.

5. REFERENCES

Input Messages
INH:UMEM
INIT:UMEM
OP:UMEM
OP:UMEM;MLH
OP:UTIL
WHEN:PID
WHEN:UID

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
ALW-UMEM
OP-UTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID ALW:UTIL
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Enables all currently defined computer generic access package (GRASP) breakpoints so that the associated actions are executed when the breakpoint conditions occur.

****CAUTION****

Use of this GRASP capability can degrade system performance. It should not be used without expert technical assistance.

2. FORMAT

ALW:UTIL{!|/}

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

IP = In progress. The message has been added to the WHEN action list.
NG = No good. No GRASP breakpoints are currently defined.
PF = Printout follows. Followed by an ALW-UTIL output message.
RL = Retry later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages
ALW:UTILFLAG
INH:UTIL
OP:UMEM
OP:UMEM;MCH
OP:UTIL
WHEN:PID
WHEN:UID

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
ALW-UTIL
OP-UTIL

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:UTILFLAG
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Enables a specific computer generic access package (GRASP) breakpoint so that the associated actions are executed when the breakpoint condition occurs. The ALW:UTILFLAG message can be used to enable a breakpoint immediately, or as an action associated with a breakpoint.

2. FORMAT

ALW:UTILFLAG *a*{!|/}

3. EXPLANATION OF MESSAGE

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

4. SYSTEM RESPONSE

IP = In progress. The message was added to the WHEN action list.
NG = No good. Identifier does not correspond to a currently defined breakpoint.
PF = Printout follows. Followed by the ALW-UTILFLAG output message.
RL = Retry later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages
ALW:UTIL
INH:UTILFLAG
OP:UMEM
OP:UMEM;MCH
OP:UTIL
WHEN:PID
WHEN:UID

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
ALW-UTILFLAG
OP-UTIL
WHEN-PID
WHEN-UID

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID APPLY:OMDB
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Applies previous updates to the new copy of the output message data base (OMDB) disk file during field update.

2. FORMAT

APPLY:OMDB!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

IP = In progress. Followed by an APPLY-OMDB output message.

5. REFERENCES

Input Messages
ACTV:OMDB
OP:OMDB
UPD:OMDB

Output Message
APPLY-OMDB

Practice 254-341-230 *Craft Interface Software Subsystem Description Lucent Technologies 3B20D Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID AUD:CUMEM-A
GENERIC UNIX RTR R1.5, R6.4 and
R21.3
TYPE Input

1. PURPOSE

Runs the standby control unit memory (CUMEM) 1 audit in the standby control unit (CU), comparing the contents of the online and offline main stores when in the ACT/ACT or ACT/STBY modes.

****CAUTION****

This audit can take more than 90 minutes to run and can degrade the performance of other UNIX® RTR system audits. Excessive audit errors may result in a hardware reconfiguration with one CU being left out of service.

2. FORMAT

AUD:CUMEM 1 [*a* | *b* | *a,b*] !

3. EXPLANATION OF MESSAGE

a = CORR or NCG.

CORR — Audit should correct errors (default).

NCG — Audit does not correct errors.

b = DETL or SUM.

DETL — Generate a raw data report for each error found followed by an audit completion message (default). (A limited number of reports is generated.)

SUM — Generate only an audit completion message when the audit terminates. Raw data reports are not created for any errors that are found.

4. SYSTEM RESPONSE

See the Audit Appendix, AUD-APP.

5. REFERENCES

Input Appendix
AUD-APP

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

OP: AUD
RST: CU
STOP: AUD
STP: AUD

Output Messages

AUD-CUMEM
OP-AUD
OP-00S

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

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID AUD:CUMEM-B
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Runs the standby control unit memory (CUMEM) 1 audit in the standby control unit (CU), comparing the contents of the online and off-line main stores when in the ACT/ACT or ACT/STBY modes.

****CAUTION****

This audit can take more than 180 minutes to run and can degrade the performance of other UNIX® RTR system audits. Excessive audit errors may result in a hardware reconfiguration with one CU being left out of service.

2. FORMAT

AUD:CUMEM 1 [*a* | *b* | *a,b*] !

3. EXPLANATION OF MESSAGE

a = CORR or NCG.

CORR — Audit should correct errors (default).

NCG — Audit does not correct errors.

b = DETL or SUM.

DETL — Generate a raw data report for each error found followed by an audit completion message (default). (A limited number of reports is generated.)

SUM — Generate only an audit completion message when the audit terminates. Raw data reports are not created for any errors that are found.

4. SYSTEM RESPONSE

See the Audit Appendix, AUD-APP.

5. REFERENCES

Input Appendix
AUD-APP

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Input Messages

OP: AUD
RST: CU
STOP: AUD
STP: AUD

Output Messages

AUD-CUMEM
OP-AUD
OP-00S

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID AUD:CUSTAT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Runs the control unit hardware status (CUSTAT) audit in the manual mode.

****CAUTION****

Excessive audit errors may result in a hardware reconfiguration with one control unit (CU) being left out of service.

2. FORMAT

AUD:CUSTAT 1 [*a* | *b* | *a,b*] !

3. EXPLANATION OF MESSAGE

a = CORR or NCG.

CORR — Audit should correct errors (default).

NCG — Audit does not correct errors.

b = DETL or SUM.

DETL — Generate a raw data report for each error found followed by an audit completion message (default). (A limited number of reports is generated.)

SUM — Generate only an audit completion message when the audit terminates. Raw data reports are not created for any errors that are found.

4. SYSTEM RESPONSE

See the Audit Appendix, AUD-APP.

5. REFERENCES

Input Appendix
AUD-APP

Input Messages
OP:AUD
STP:AUD
STOP:AUD

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Output Messages
AUD-CUSTAT
OP-AUD

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID AUD:ECD
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Audits the equipment configuration data base (ECD).

Format 1 audits the incore ECD.

Format 2 runs a structural audit of the minimum configuration ECD.

Format 3 runs a structural audit of the full configuration ECD.

****CAUTION****

Running ECD audit 1 or 3 while diagnostics are running can result in
mutilation of data base records.

2. FORMAT

- [1] **AUD:ECD** *a* [*b* | *c* | *b,c*] !
- [2] **AUD:ECD 2,INS "ecd"** [*b* | *c* | *b,c*] !
- [3] **AUD:ECD 2,INS "appecd"** [*b* | *c* | *b,c*] !

3. EXPLANATION OF MESSAGE

- a* = Specifies the type of incore ECD audit (1 or 3):
 - 1 — Structural audit.
 - 3 — Raw data audit.
- b* = CORR or NCG.
 - CORR — Audit should correct errors (default).
 - NCG — Audit does not correct errors.

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c = DETL or SUM.

DETL — Generate a raw data report for each error found followed by an audit completion message (default). (A limited number of reports is generated.)

SUM — Generate only an audit completion message when the audit terminates. Raw data reports are not created for any errors that are found.

4. SYSTEM RESPONSE

See the Audit Appendix, AUD-APP.

5. REFERENCES

Input Appendix
AUD-APP

Input Messages
OP:AUD
STP:AUD
STOP:AUD

Output Messages
AUD-ECD
OP-AUD

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ID AUD:ECDOWN
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Runs the equipment configuration data base manager (ECDMAN) audit of record ownership. This audit releases reserved records for processes that have died.

2. FORMAT

AUD:ECDOWN 1 [*a* | *b* | *a,b*] !

3. EXPLANATION OF MESSAGE

a = CORR or NCG.

CORR — Audit should correct errors (default).

NCG — Audit does not correct errors.

b = DETL or SUM.

DETL — Generate a raw data report for each error found followed by an audit completion message (default). (A limited number of reports is generated.)

SUM — Generate only an audit completion message when the audit terminates. Raw data reports are not created for any errors that are found.

4. SYSTEM RESPONSE

See the Audit Appendix, AUD-APP.

5. REFERENCES

Input Appendix
AUD-APP

Input Messages
OP:AUD
STOP:AUD
STP:AUD

Output Messages
AUD-ECDOWN
OP-AUD

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ID AUD:FMGR
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Audits the resources of the file manager (FMGR).

2. FORMAT

AUD:FMGR *a* [*b* | *c* | *b,c*] !

3. EXPLANATION OF MESSAGE

a = Specifies the member number (1-9) of the FMGR audit.

- 1 — Task queue audit.
- 2 — Internal inode table audit.
- 3 — Hash table and internal inode pointer table audit.
- 4 — File table audit.
- 5 — Internal capability table audit.
- 6 — Buffer audit.
- 7 — Mount table audit.
- 8 — Delayed queue audit.
- 9 — Message queue audit.

b = CORR or NCG.

CORR — Audit should correct errors (default).
NCG — Audit does not correct errors.

c = DETL or SUM.

DETL — Generate a raw data report for each error found followed by an audit completion message (default). (A limited number of reports is generated.)
SUM — Generate only an audit completion message when the audit terminates. Raw data reports are not created for any errors that are found.

4. SYSTEM RESPONSE

See the Audit Appendix, AUD-APP.

5. REFERENCES

Input Appendix
AUD-APP

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Input Messages

OP: AUD
STOP: AUD
STP: AUD

Output Messages

AUD-FMGR1
AUD-FMGR2
AUD-FMGR3
AUD-FMGR4
AUD-FMGR5
AUD-FMGR6
AUD-FMGR7
AUD-FMGR8
AUD-FMGR9
OP-AUD

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ID AUD:FSBLK-A
GENERIC UNIX RTR R1.5 and R6.4
TYPE Input

1. PURPOSE

Requests that the file system block audit be run. This audit can be run on a mounted or unmounted file system.

2. FORMAT

AUD:FSBLK *a*, **INS** "*b*"[*c*];*d*];*c*,*d*]!

3. EXPLANATION OF MESSAGE

a = Member number of the FSBLK audit. The computer audit member number is 1.

b = Instance to be audited. Computer instance names are:

/dev/bdb
/dev/betc
/dev/broot
/dev/db
/dev/etc
/dev/root
/dev/tmp

c = CORR or NCG.

CORR — Audit should correct errors.

NCG — Audit does not correct errors (default).

d = DETL or SUM.

DETL — Generate a raw data report for each error found followed by an audit completion message (default). (A limited number of reports is generated.)

SUM — Generate only an audit completion message when the audit terminates. Raw data reports are not created for any errors that are found.

4. SYSTEM RESPONSE

See the Audit Appendix, AUD-APP.

5. REFERENCES

Input Appendix
AUD-APP

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Input Messages

AUD:FSLINK

OP:AUD

OP:FNAME

STOP:AUD

STP:AUD

Output Messages

AUD-FSBLK

OP-AUD

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ID AUD:FSBLK-B
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Requests that the file system block audit be run. This audit can be run on a mounted or unmounted file system.

2. FORMAT

AUD:FSBLK *a*, **INS** "*b*"[;*c*|;*d*|;*c*,*d*][:**PARAM** "*e*"]!

3. EXPLANATION OF MESSAGE

- a* = Member number of the FSBLK audit. The computer audit member number is 1.
- b* = Instance to be audited. Computer instance names are:
- /dev/bdb
 - /dev/betc
 - /dev/broot
 - /dev/db
 - /dev/etc
 - /dev/root
 - /dev/tmp
- c* = CORR or NCG.
- CORR — Audit should correct errors.
 - NCG — Audit does not correct errors (default).
- d* = DETL or SUM.
- DETL — Generate a raw data report for each error found followed by an audit completion message (default). (A limited number of reports is generated.)
 - SUM — Generate only an audit completion message when the audit terminates. Raw data reports are not created for any errors that are found.
- e* = Parameter BACKUP is specified if it is desired that the audit check the filesystem for the appropriateness of generating a backup tape. If this is specified, the audit may report, as errors, conditions that normally would not be considered errors, but could result in the creation of an improper backup tape. These errors are not correctable.

4. SYSTEM RESPONSE

See the Audit Appendix, AUD-APP.

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5. REFERENCES

Input Appendix
AUD-APP

Input Messages
AUD:FSLINK
OP:AUD
OP:FNAME
STOP:AUD
STP:AUD

Output Messages
AUD-FSBLK
OP-AUD

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

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ID AUD:FSCMPT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests that the file system compaction audit be run. This audit can be run on a mounted or unmounted file system.

2. FORMAT

AUD:FSCMPT *a*, **INS** "*b*"[*c*];*d*];*c*,*d*][:**PARAM** "{*e*|*f*|*e*,*f*"}!

3. EXPLANATION OF MESSAGE

- a* = Member number of the FSCMPT audit. The computer audit member number is 1.
- b* = Instance to be audited. Instance names are the special device files corresponding to the file system audited.
- c* = CORR or NCG.
CORR — Audit should correct errors, and complete the compaction (default).
NCG — Audit should not correct errors, and should not do the compaction.
- d* = DETL or SUM.
DETL — Generate a raw data report for each error found followed by an audit completion message (default). (A limited number of reports is generated.)
SUM — Generate only an audit completion message when the audit terminates. Raw data reports are not created for any errors that are found.
- e* = MIN or MAX.
MIN — Perform or report for a minimum effort compaction (default).
MAX — Perform or report for a maximum effort compaction.
- f* = COND or UCL.
COND — Limit number of regular file blocks relocated to achieve compaction (default).
UCL — An unlimited number of regular file blocks may be relocated to achieve compaction.

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4. SYSTEM RESPONSE

See the appendix, System Responses for Audit System Input Messages, AUD.

5. REFERENCES

Input Appendix
AUD

Input Messages
AUD:FSBLK
AUD:FSLINK
OP:AUD
OP:FNAME

Output Messages
AUD-FSCMPT
OP-AUD

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ID AUD:FSLINK-A
GENERIC UNIX RTR R1.5 and R6.4
TYPE Input

1. PURPOSE

Requests that the file system link audit be run. This audit can be run on a mounted or unmounted file system.

2. FORMAT

AUD:FSLINK *a*, **INS** "*b*"[*c*];*d*];*c*,*d*]!

3. EXPLANATION OF MESSAGE

a = Member number of the FSLINK audit. The computer audit member number is 1.

b = Instance to be audited. Computer instance names are:

/dev/bdb
/dev/betc
/dev/broot
/dev/db
/dev/etc
/dev/root
/dev/tmp

c = CORR or NCG.

CORR — Audit should correct errors.

NCG — Audit does not correct errors (default).

d = DETL or SUM.

DETL — Generate a raw data report for each error found followed by an audit completion message (default). (A limited number of reports is generated.)

SUM — Generate only an audit completion message when the audit terminates. Raw data reports are not created for any errors that are found.

4. SYSTEM RESPONSE

See the Audit Appendix, AUD-APP.

5. REFERENCES

Input Appendix
AUD-APP

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Input Messages

AUD:FSBLK
OP:AUD
OP:FNAME
STOP:AUD
STP:AUD

Output Messages

OP-AUD
AUD-FSLINK

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ID AUD:FSLINK-B
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Requests that the file system link audit be run. This audit can be run on a mounted or unmounted file system.

2. FORMAT

AUD:FSLINK *a*, **INS** "*b*"[;*c*|;*d*|;*c*,*d*][:**PARAM** "*e*"]!

3. EXPLANATION OF MESSAGE

a = Member number of the FSLINK audit. The computer audit member number is 1.

b = Instance to be audited. Computer instance names are:

/dev/bdb
/dev/betc
/dev/broot
/dev/db
/dev/etc
/dev/root
/dev/tmp

c = CORR or NCG.

CORR — Audit should correct errors.

NCG — Audit does not correct errors (default).

d = DETL or SUM.

DETL — Generate a raw data report for each error found followed by an audit completion message (default). (A limited number of reports is generated.)

SUM — Generate only an audit completion message when the audit terminates. Raw data reports are not created for any errors that are found.

e = Parameter BACKUP is specified if it is desired that the audit check the filesystem for the appropriateness of generating a backup tape. If this is specified, the audit may report as errors conditions that would not normally be considered errors, but could result in the creation of an improper backup tape. These errors are not correctable.

4. SYSTEM RESPONSE

See the Audit Appendix, AUD-APP.

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5. REFERENCES

Input Appendix
AUD-APP

Input Messages
AUD:FSBLK
OP:AUD
OP:FNAME
STOP:AUD
STP:AUD

Output Messages
OP-AUD
AUD-FSLINK

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ID AUD:MMGR
 GENERIC UNIX RTR R1.5, R6.4,
 R21.3, R21.11, R21.15 and
 later
 TYPE Input

1. PURPOSE

Runs the memory manager audits. The first three audits validate the segment descriptor table, page tables and the page descriptor table, and recover lost pages and page tables. The segment release audit completes an interrupted segment breakdown procedure. The segment unlock audit releases old iolocked segments.

The swap space compaction audit runs a complete swap disk space compaction. It should be run, load permitting, in response to repeated REPT-MMGR004 output messages.

NOTE: While the swap space compaction is running, the memory manager will not be able to swap supervisor processes into memory. As a result, the only supervisor processes that will run during this interval will be those already in memory. The real-time interval depends on the level of kernel process activity, or unpredictable things such as the type and number of supervisor segments that are in memory at the time.

2. FORMAT

AUD:MMGR a[;b | ;c | ;b,c] !

3. EXPLANATION OF MESSAGE

- a* = Member number of the audit.
 - 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* = CORR or NCG.
 - CORR — Audit should correct errors (default).
 - NCG — Audit does not correct errors.
- c* = DETL or SUM.
 - DETL — Generate a raw data report for each error found followed by an audit completion message (default). (A limited number of reports is generated.)
 - SUM — Generate only an audit completion message when the audit terminates. Raw data reports are not created for any errors that are found.

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4. SYSTEM RESPONSE

See the Audit Appendix, AUD-APP.

5. REFERENCES

Input Appendix
AUD-APP

Input Messages
OP:AUD
STOP:AUD
STP:AUD

Output Messages
AUD-MMGR
OP-AUD
REPT-MMGR004

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ID AUD:MSGBUF
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Audits the message buffer (MSGBUF) resources.

2. FORMAT

AUD:MSGBUF *a* [*;**b* [*;**c* [*;**b*, *c*]] !

3. EXPLANATION OF MESSAGE

- a* = Member number of the audit:
- 1 — Message buffer queue audit.
 - 2 — Message buffer extender block audit.
- b* = CORR or NCG.
- CORR — Audit should correct errors (default).
 - NCG — Audit does not correct errors.
- c* = DETL or SUM.
- DETL — Generate a raw data report for each error found followed by an audit completion message (default). (A limited number of reports is generated.)
 - SUM — Generate only an audit completion message when the audit terminates. Raw data reports are not created for any errors that are found.

4. SYSTEM RESPONSE

See the Audit Appendix, AUD-APP.

5. REFERENCES

Input Appendix
AUD-APP

Input Messages
OP: AUD
STOP: AUD
STP: AUD

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Output Messages

AUD-MSGBUF

OP-AUD

REPT-KAUDPRC

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ID AUD:PMS
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Runs the plant measurements system (PMS) data base audit.

2. FORMAT

AUD:PMS 1 [*a*;*b*;*a,b*] !

3. EXPLANATION OF MESSAGE

a = CORR or NCG.

CORR — Audit should correct errors (default).

NCG — Audit does not correct errors.

b = DETL or SUM.

DETL — Generate a raw data report for each error found followed by an audit completion message (default). (A limited number of reports is generated.)

SUM — Generate only an audit completion message when the audit terminates. Raw data reports are not created for any errors that are found.

4. SYSTEM RESPONSE

See the Audit Appendix, AUD-APP.

5. REFERENCES

Input Appendix
AUD-APP

Input Messages
OP:AUD
STOP:AUD
STP:AUD

Output Messages
AUD-PMS
OP-AUD

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ID AUD:PROAD
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Audits the DCT extended (DCTEXT), searching for suspended process creations (including forks) and terminations. It also searches for processes which have been suspended from execution for over 30 minutes and terminates them.

2. FORMAT

AUD:PROAD 1 [*a* | *b* | *a,b*] !

3. EXPLANATION OF MESSAGE

a = CORR or NCG.

CORR — Audit should correct errors (default).

NCG — Audit does not correct errors.

b = DETL or SUM.

DETL — Generate a raw data report for each error found followed by an audit completion message (default). (A limited number of reports is generated.)

SUM — Generate only an audit completion message when the audit terminates. Raw data reports are not created for any errors that are found.

4. SYSTEM RESPONSE

See the Audit Appendix, AUD-APP.

5. REFERENCES

Input Appendix
AUD-APP

Input Messages
OP:AUD
STOP:AUD
STP:AUD

Output Messages
AUD-PROAD
OP-AUD

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ID CFR:DUPLEXDISKS
GENERIC UNIX RTR R21.27 and
later
TYPE Input

1. PURPOSE

Configure MHD 0 and MHD 1 to be the duplex boot disks.

This command is only supported on a 3B21D Hardware Platform that is configured to support the Recovery from Alternate Boot Disk feature.

For the command to complete successfully, the 3B21D must be booted with an Alternate Boot Disk (ABD) selected as one of the duplex boot disks and the UCB states of the system and alternate boot disks must meet the following criteria:

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.

2. FORMAT

CFR:DUPLEXDISKS!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the CFR DUPLEXDISKS output message.

5. REFERENCES

Input Message
None.

Output Message
CFR-DUPLEXDISKS

Display / Menu Page Name
COMMON PROCESSOR DISPLAY

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CHG:PAUTH
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Changes the password for a given user identity (IDENT). Either password prefix or password suffix or both must be entered.

2. FORMAT

[1] CHG:PAUTH:IDENT "a",{PSSWDPFX "b"|PSSWDSFX "c"}!

[2] CHG:PAUTH:IDENT "a",PSSWDPFX "b",PSSWDSFX "c"!

3. EXPLANATION OF MESSAGE

- a* = Identity of the person or group that uses the password prefix and suffix, in one to eight letters and /or digits.
- b* = Password prefix (PSSWDPFX) in three letters and /or digits.
- c* = Password suffix (PSSWDSFX) in six to 13 characters.

4. SYSTEM RESPONSE

- OK = Good. Password and identity has been changed in the database.
- RL = Retry Later.
 - AUTHORITY ADMINISTRATION UNDER UPDATE
Authority information is currently being updated.
- NG = No Good.
 - NON-EXISTENT PERSON IDENTITY
The given person identity does not exist in the personal authority administration.
 - PASSWORD PREFIX NOT UNIQUE
The given password prefix already exists in the password authority administration.
 - UNABLE TO ACCESS AUTHORITY ADMINISTRATION
Password or personal authority information is inaccessible.
 - PASSWORD PREFIX ILLEGAL LENGTH
The given password prefix is not equal to three characters in length.
 - PASSWORD SUFFIX ILLEGAL LENGTH
The given password suffix is greater than 13 characters in length.
 - PARAMETER(S) MISSING
Necessary parameters are missing. Either a password prefix or password suffix or both must be entered.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

Input Message(s)

ADD:PAUTH

DEL:PAUTH

VFY:PAUTH

RNM:PSSWD

Output Message(s)

VFY-PAUTH

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CHG:PROFL
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Adds or removes a command group (COMGR) from a profile identity (IDENT). This allows a profile to contain a set of command groups. The IDENT must already exist in the profile (PROFL) database.

2. FORMAT

CHG:PROFL:IDENT "a", **ACTION** b, **COMGR** c,[-d],[-e],[-f],[-g],[-h],[-i],[-j],[-k]
[-l],[-m],[-n],[-o],[-p],[-q],[-r]!

3. EXPLANATION OF MESSAGE

- a = Identity of the profile in one to eight letters and / or digits.
- b = The action to perform on the profile, either INCLUDE or EXCLUDE the given command group(s).
- c-r = Command group.

4. SYSTEM RESPONSE

- OK = Good. Command group successfully added to or removed from profile.
- RL = Retry Later.
- PROFILE ADMINISTRATION UNDER UPDATE
Profile information is currently being updated.
- NG = No Good.
- PROFILE IDENTITY DOES NOT EXIST
The given profile identity does not exist in the profile authority administration.
- UNABLE TO ACCESS PROFILE ADMINISTRATION
Profile authority information is inaccessible.
- PASSWORD ENHANCEMENT NOT ACTIVATED
This command is valid only for applications running with the Password Enhancement feature enabled.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

Input Messages

ADD:PCGRP

ADD:PROFL

DEL:PCGRP

DEL:PROFL

VFY:PCGRP

VFY:PROFL

Output Message

VFY-PROFL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:ACKDB
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Invalidates the segment name of the ACKDB so that the next invocation of either the craft shell or Display Administration Process reinitializes it. Current running process will continue to use the old copy of the ACKDB until they are terminated.

2. FORMAT

CLR:ACKDB!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

IP = In Progress.

5. REFERENCES

Input Message
STOP:EXC

Practice 254-341-230 *Craft Interface Software Subsystem 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 CLR:EMERDMP
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Clears the emergency dump partition status flag. The flag is set whenever an emergency dump is written to disk. Until the flag is cleared, it causes the REPT EMERGENCY DUMP PARTITION FULL output message to be printed periodically and prevents a new emergency dump being written to disk until 12 hours later. The user is thus provided sufficient time to copy out the partition contents onto a tape.

2. FORMAT

CLR:EMERDMP!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

OK = Good. Emergency dump partition is marked empty.

PF = Printout follows. Followed by a CLR-EMERDMP output message.

5. REFERENCES

Input Messages

COPY:T;EMERDMP

OP:EMERSTAT

Output Messages

CLR-EMERDMP

REPT-EMER, DUMP

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

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID CLR:F;DIR
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Removes a directory from the file system. The directory must be empty (no files or subdirectories stored under the directory name) before it can be removed.

****CAUTION****

Incorrect use of this command can result in the removal of needed file system directories.

2. FORMAT

CLR:FILESYS:DIR, FN "a"!

3. EXPLANATION OF MESSAGE

a = Pathname of the directory to be removed. See the User Guidelines in this manual for definitions of pathname and directory.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a CLR-FILESYS,DIR output message.

5. REFERENCES

Input Messages
CLR:F;FILE
IN:F;DIR
OP:ST;LISTDIR

Output Message
CLR-F, DIR

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

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID CLR:F;FILE
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Removes a file from a directory.

****CAUTION****

Incorrect use of this command can result in the removal of needed files and processes.

2. FORMAT

CLR:FILESYS:FILE, FN "*a*"!

3. EXPLANATION OF MESSAGE

a = Pathname of the file. See the User Guidelines section in this manual for definitions of pathname and file.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a CLR-FILESYS,FILE output message.

5. REFERENCES

Input Message
OP:ST;LISTDIR

Output Messages
CLR-F, FILE
OP-ST, LISTDIR

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:FANALM-A
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Performs a remote reset of the computer fan alarm (FANALM). The points are identified by physical location (as in Format 1) or by logical address (as in Format 2).

2. FORMAT

- [1] **CLR:FANALM;UNIT** *a*:**PT** {*b*|(*b*,*b*[,*b*,*b*)}
- [2] **CLR:FANALM;GRPN** *c*,**DUPI****D** *d*: **PT**{*e*|(*e*,*e*[,*e*,*e*)}

3. EXPLANATION OF MESSAGE

- a* = Scanner and signal distributor (SCSD) unit number (0-16).
- b* = Physical point number on SCSD (0-31).
- c* = Computer logical scan groups are:
 FANACU0
 FANACU1

The imcatlg will not recognize any other logical scan groups. If an unrecognized logical scan group is used in the input message, the command **EXC:UCL** must be entered immediately following the message, causing the Craft Shell to accept this input message, thereby allowing the SCSD software to process and execute it.

- d* = Duplex identifier (0-1).
- e* = Logical point number (0-5).

4. SYSTEM RESPONSE

- NG = No good. SCSD administrator process is not active; no communication with SD points is possible.
- PF = Printout follows. Followed by CLR-FANALM output message.
- RL = Retry later.

5. REFERENCES

Input Messages
ALW:SCSD
EXC:UCL
INH:SCSD
OP:SCSD

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

CLR-FANALM

RCVRY-SCSDC

REPT-FF, SING

REPT-FF, MULTI

REPT-SCSDC

Practice 254-301-110 *Input-Output Processor Peripheral Controllers 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*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:FANALM-B
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Performs a remote reset of the computer fan alarm (FANALM). The points are identified by physical location (as in Format 1) or by logical address (as in Format 2).

2. FORMAT

This message has two formats.

[1] **CLR:FANALM;UNIT** *a*:**PT** {*b*|(*b*,*b*[,*b*,*b*...])}

[2] **CLR:FANALM;GRPN** "*c*",**DUPIID** *d*: **PT**{*e*|(*e*,*e*[*e*,*e*])}

3. EXPLANATION OF MESSAGE

- a* = Scanner and signal distributor (SCSD) unit number (0-16).
- b* = Physical point number on SCSD (0-31).
- c* = Name of the logical SCSD group. Logical SCSD group names for fan alarms begin with the prefix FANA. Examples are:

 FANACU0
 FANACU1
- d* = Duplex identifier (0-1).
- e* = Logical point number (0-5).

4. SYSTEM RESPONSE

- NG = No good. SCSD administrator process is not active; no communication with SD points is possible.
- PF = Printout follows. Followed by a CLR-FANALM output message.
- RL = Retry later.

5. REFERENCES

Input Messages
ALW:SCSD
INH:SCSD
OP:SCSD

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

CLR-FANALM

RCVRY-SCSDC

REPT-FF, SING

REPT-FF, MULTI

REPT-SCSDC

Practice 254-341-110 *DMERT Kernel and Basic Services 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 CLR:IMCAT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Invalidates the memory segments of the old input message catalog, forcing the new one to be loaded into the main memory. This message is used during a field update of the input message catalog.

2. FORMAT

CLR:IMCAT!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NG = No good. Includes one of the following:

- FILE INACCESSIBLE
File did not open.
- SEGCODE CANNOT BE DETERMINED
No segment names.
- SEGMENT NAME CANNOT BE CLEARED
Segments not marked invalid.

OK = Good. Segments are marked invalid.

PF = Printout follows. Followed by a CLR-IMCAT output message.

5. REFERENCES

Output Message
CLR-IMCAT

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:IODRV
 GENERIC UNIX RTR R1.5, R6.4,
 R21.3, R21.11, R21.15 and
 later
 TYPE Input

1. PURPOSE

Allows option setting in the input/output processor (IOP) driver to suppress IOP driver messages.

NOTE: Entering this command without the options turns off all severity levels, handler IDs and classes, but leaves the MSGSAVE flag as is.

2. FORMAT

CLR:IODRV[;LVL a|(a,a[,a])][,ID b|(b,b[,b...])][,CLASS c|(c,c[,c...])][,MSGSAVE]]]!

3. EXPLANATION OF MESSAGE

a = Severity level (1-3), where one is the most severe setting and three is the least severe.

b = Administrative module (AM) handler identification:

ALL	— Turns on all IDs.
APH	— Application protocol handler.
APPL1-APPL5	— Reserved for application handlers.
CIH	— Craft interface handler.
DUIH	— Direct user interface handler.
IOP	— Input/output driver.
MAINT	— Maintenance handler.
MTH	— Magnetic tape handler.
NPH	— Network protocol handler.
SCSDH	— Scanner and signal distributor handler.
SDLH	— Synchronous data link handler.
SPH	— Session protocol handler.
TPH	— Transport protocol handler.
PPH	— Presentation protocol handler.

c = Thirty-two classes available.

MSGSAVE = IOP error messages will not be saved in the IODRVLOG logfile.

4. SYSTEM RESPONSE

NG = No good. Conflict with system status.

PF = Printout follows. Followed by a CLR-IODRV output message.

5. REFERENCES

Input Messages
OP: IODRV

SEE PROPRIETARY NOTICE ON COVER PAGE

SET: IODRV

Output Messages

CLR- IODRV

OP- IODRV

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:IOMEM
GENERIC UNIX RTR R21.27 and
later
TYPE Input

1. PURPOSE

Release a file from the Input/Output DRiVers cache memory. This command is used during the installation of a new version of a file which could have been cached in the memory of the IODRV. Upon successful completion of this command, the next time the file is needed by the IODRV, the file will be read from disk.

2. FORMAT

CLR:IOMEM:FN "a"!

3. EXPLANATION OF MESSAGE

a = Full pathname that specifies the file to be released from the IODRV's cached memory.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a CLR-IOMEM output message.

5. REFERENCES

Output Message
CLR-IOMEM

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:MHD;MAEC
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Clears a given MHD's media access error counter (MAEC). The MAEC for a given MHD is set to zero.

A MAEC counts all errors which could be classified as bad disk blocks (media defects). If upon investigation some or all of these errors are attributed to specific bad disk blocks, the bad disk blocks should be mapped out using the `LOAD:MHD;DEFECT` and `INIT:MHD` commands. This procedure will reset the specified MHD's MAEC back to zero.

If upon further investigation none of these errors are attributed to media defects, then mapping bad blocks and formatting the disk is not necessary. In this case, the `CLR:MHD;MAEC` command is used to reset the specified MHD's MAEC back to zero.

2. FORMAT

CLR:MHD *a*;MAEC!

3. EXPLANATION OF MESSAGE

a = MHD member number.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a CLR-MHD, MAEC output message.

5. REFERENCES

Input Messages

INIT:MHD
LOAD:MHD;DEFECT
VFY:MHD

Output Messages

CLR-M, MAEC
REPT-DKDRV

CIP 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System
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SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:PTN
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Clears (initializes with zeroes) partitions on a specified disk. The partitions to be cleared are determined from a specfile (default /etc/clearspec). Both the disk specified and its mate should be active before this message is entered.

This command will be used by the applications that have automatic message accounting (AMA) partitions (on removable media disk packs) which need to be cleared whenever a disk copy is generated.

2. FORMAT

CLR:PTN:MHD *a* [**;****SPECF** "*b*"]!

3. EXPLANATION OF MESSAGE

- a* = Identifies of disk unit to be initialized with zeroes.
- b* = Pathname of specification file containing list of partition names that will be initialized with zeroes. Default will be /etc/clearspec. See the User Guidelines section of this manual for definitions of pathnames and files.

4. SYSTEM RESPONSE

- NG = No good. Process not initiated.
- PF = Printout follows. Followed by an INIT-PTN output message.

5. REFERENCES

Output Message
CLR-PTN

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:UMEM
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Causes the definition of an computer generic access package (GRASP) transfer trace to be removed. The trace goes into the UNDEF state with successful completion of the message.

2. FORMAT

CLR:UMEM [;UCL]!

3. EXPLANATION OF MESSAGE

UCL = Unconditional execution.

4. SYSTEM RESPONSE

?A = INVALID KEYWORD
Message not allowed in a WHEN action list.

?I = General syntax error.

NG = No good. Includes one of the following:

- TRACE NOT DEFINED
The trace is not defined.
- UCERR
The circuit is unavailable.

PF = Printout follows. Followed by a CLR-UMEM output message.

RL = Retry later or wait for previous OP:UMEM or OP:UMEM;MCH to complete. The system is in an overload condition.

5. REFERENCES

Input Messages
INIT:UMEM
OP:UMEM
OP:UMEM;MCH
OP:UTIL

Output Messages
CLR-UMEM
OP-UTIL

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:UTIL-A
GENERIC UNIX RTR R1.5 and R6.4
TYPE Input

1. PURPOSE

Removes all currently defined computer generic access package (GRASP) breakpoints; clears definitions.

2. FORMAT

CLR:UTIL!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NG = No good. No GRASP breakpoints are currently defined.
PF = Printout follows. Followed by a CLR-UTIL output message.
RL = Retry later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.
?A = INVALID KEYWORD
Command not allowed in a WHEN action list.

5. REFERENCES

Input Messages

CLR:UTILFLAG
OP:UMEM
OP:UMEM;MCH
OP:UTIL
WHEN:PID
WHEN:UID

Output Messages

CLR-UTIL
OP-UTIL

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:UTIL-B
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Removes all currently defined computer generic access package (GRASP) breakpoints; clears definitions.

2. FORMAT

CLR:UTIL[;RESET]!

3. EXPLANATION OF MESSAGE

RESET = The **RESET** option causes breakpoint numbering to be reinitialized; the next breakpoint defined will be given the number 1.

4. SYSTEM RESPONSE

NG = No good. No GRASP breakpoints are currently defined.
PF = Printout follows. Followed by a CLR-UTIL output message.
RL = Retry later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.
?A = INVALID KEYWORD
Command not allowed in a WHEN action list.

5. REFERENCES

Input Messages
CLR:UTILFLAG
OP:UMEM
OP:UMEM;MCH
OP:UTIL
WHEN:PID
WHEN:UID

Output Messages
CLR-UTIL
OP-UTIL

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:UTILFLAG-A
GENERIC UNIX RTR R1.5 and R6.4
TYPE Input

1. PURPOSE

Removes the specified computer generic access package (GRASP) breakpoint and clears the definition.

2. FORMAT

CLR:UTILFLAG a!

3. EXPLANATION OF MESSAGE

a = Numeric identifier (one or more decimal digits) for the breakpoint to be cleared.

4. SYSTEM RESPONSE

NG = No good. Identifier does not correspond to a currently defined breakpoint.

PF = Printout follows. Followed by a CLR-UTILFLAG output message.

RL = Retry later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages

CLR:UTIL
OP:UMEM
OP:UMEM;MCH
OP:UTIL
WHEN:PID
WHEN:UID

Output Messages

CLR-UTILFLAG
OP-UTIL
WHEN-PID
WHEN-UID

Practice 254-341-115 *Generic Access Package (GRASP) - Description*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:UTILFLAG-B
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Removes the specified computer generic access package (GRASP) breakpoint and clears the definition.

2. FORMAT

CLR:UTILFLAG *a*[;**RESET**]!

3. EXPLANATION OF MESSAGE

- a* = Numeric identifier (one or more decimal digits) for the breakpoint to be cleared.
- RESET** = If *a* is the last remaining defined breakpoint, then the **RESET** option causes breakpoint numbering to be reinitialized; the next defined breakpoint will be given the number 1. If *a* is not the last defined breakpoint, then the **RESET** keyword is ignored.

4. SYSTEM RESPONSE

- NG = No good. Identifier does not correspond to a currently defined breakpoint.
- PF = Printout follows. Followed by a CLR-UTILFLAG output message.
- RL = Retry later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages
CLR:UTIL
OP:UMEM
OP:UMEM;MCH
OP:UTIL
WHEN:PID
WHEN:UID

Output Messages
CLR-UTILFLAG
OP-UTIL
WHEN-PID
WHEN-UID

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 CMPR:D;CORE
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Compares the text portions of the disk and core images of a non-killable process. Equipment configuration database (ECDLIB), public library (PLIB), and 3bsgen.kern can also be compared.

2. FORMAT

CMPR:DISK,CORE,FN "a"; [, OPTNM "b",MPT "c",MHDNUM "d"]!

3. EXPLANATION OF MESSAGE

- a* = Pathname of the file. See the User Guidelines in this manual for definitions of pathname and file.
- b* = Special device file name on offline partition (e.g., /dev/root).
- c* = Pathname of mount point.
- d* = MHD number.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a CMPR-DISK, CORE output message.

5. REFERENCES

Output Messages
CMPR-D, CORE

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SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID CMPR:MHD-A
GENERIC UNIX RTR R1.5, R6.4 and
R21.3
TYPE Input

1. PURPOSE

Compares the contents of two disks or two disk partitions. A disk partition may reside on the disk of its duplex mate, or on an arbitrary disk. Also, both disk partitions may reside on the same disk.

****CAUTION****

Incorrect use of this command can degrade system performance. This command should not be used without expert technical assistance.

2. FORMAT

CMPR:MHD *a* [,PTN {*b* | *c-d*}] [**MATE** | **MHD** *e*] [,PTN {*f* | *g-h*}] [**BLOCKS** *i*,**RO**]!

3. EXPLANATION OF MESSAGE

- a* = First member number.
- b* and *f* = Partition numbers within a range of (0 to 63), or list of partitions (*r*1, *r*2, *r*3, ..., *r**n*) where the list may include 64 entries.

Default will be all but the FREE, UNASGN, DIAG, SWAP, and PDUMP partitions.
- c-d* = A range of partition numbers where a list of up to 32 ranges (*p*0-*p*1, *p*2-*p*3, *p*4-*p*5, ..., *p**m*-*p**n*) may be specified. A range has the format *c-d* where *d* must be greater than *c*.
- e* = Second member number. If **MHD** *e* or **MATE** is not specified, **MATE** is the default.
- g-h* = A range of partition numbers where a list of up to 32 ranges (*p*0-*p*1, *p*2-*p*3, *p*4-*p*5, ..., *p**m*-*p**n*) may be specified. A range has the format *g-h* where *h* must be greater than *g*.
- i* = An integer value indicating the size of the Input/Output (I/O) buffers as a multiple of disk blocks. The legal values are 1-256. If **BLOCKS** is not specified, the default is 256. However, if **BLOCKS** is not specified, and the **RO** option is used, then the default is 128.
- RO** = All blocks on specified moving head disks (MHDs) or partitions will be read into memory, but no comparison will be performed. If **MHD** *e* or **MATE** is not specified, the reads will only be performed on **MHD** *a*.

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4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a CMPR-MHD output message.
- RL = Retry later. The system has a CMPR:MHD or COPY:DIFF input message in progress.

5. REFERENCES

Input Messages

CMPR:MHD

COPY:DIFF;MHD

DUMP:MHD;BLK

STOP:CMPR;MHD

Output Message

CMPR-MHD

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID CMPR:MHD-B
GENERIC UNIX RTR R21.11 and
R21.15
TYPE Input

1. PURPOSE

Compares the contents of two disks or two disk partitions. A disk partition may reside on the disk of its duplex mate, or on an arbitrary disk. Also, both disk partitions may reside on the same disk.

Only one CMPR:MHD or COPY:DIFF command is allowed to run at one time. If more than one is attempted, the DFC driver will deny the request and output an error code to that effect.

****CAUTION****

Incorrect use of this command can degrade system performance. This command should not be used without expert technical assistance.

2. FORMAT

CMPR:MHD *a* [,PTN {*b* | *c-d*}] [**MATE** | **MHD** *e*] [,PTN {*f* | *g-h*}] [**:BLOCKS** *i*,**RO**]!

3. EXPLANATION OF MESSAGE

- a* = First member number.
- b* and *f* = Partition numbers within a range of (0 to 63), or list of partitions (*r*1, *r*2, *r*3, ..., *r**n*) where the list may include 64 entries.
- Default will be all but the FREE, UNASGN, DIAG, SWAP, and PDUMP partitions.
- c-d* = A range of partition numbers where a list of up to 32 ranges (*p*0-*p*1, *p*2-*p*3, *p*4-*p*5, ..., *p**m*-*p**n*) may be specified. A range has the format *c-d* where *d* must be greater than *c*.
- e* = Second member number. If **MHD** *e* or **MATE** is not specified, **MATE** is the default.
- g-h* = A range of partition numbers where a list of up to 32 ranges (*p*0-*p*1, *p*2-*p*3, *p*4-*p*5, ..., *p**m*-*p**n*) may be specified. A range has the format *g-h* where *h* must be greater than *g*.
- i* = An integer value indicating the size of the Input/Output (I/O) buffers as a multiple of disk blocks. The legal values are 1-256. If **BLOCKS** is not specified, the default is 256. However, if **BLOCKS** is not specified, and the **RO** option is used, then the default is 128.
- RO** = All blocks on specified moving head disks (MHDs) or partitions will be read into memory, but no comparison will be performed. If **MHD** *e*

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or **MATE** is not specified, the reads will only be performed on **MHD a**.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a CMPR-MHD output message.

5. REFERENCES

Input Messages

CMPR:MHD

COPY:DIFF

DUMP:MHD;BLOCK

STOP:CMPR;MHD

Output Message

CMPR-MHD

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

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID CMPR:MHD-C
GENERIC UNIX RTR R21.17 and
later
TYPE Input

1. PURPOSE

Compares the contents of two disks or two disk partitions. A disk partition may reside on the disk of its duplex mate, or on an arbitrary disk. Also, both disk partitions may reside on the same disk.

Only one CMPR:MHD or COPY:DIFF command is allowed to run at one time. If more than one is attempted, the DFC driver will deny the request and output an error code to that effect.

****CAUTION****

Incorrect use of this command can degrade system performance. This command should not be used without expert technical assistance.

2. FORMAT

CMPR:MHD a [,PTN {b | c-d}];[MATE | MHD e] [,PTN {f | g-h}][:BLOCKS i,RO]!

3. EXPLANATION OF MESSAGE

- a* = First member number.
- b* and *f* = Partition numbers within a range of (0 to 63), or list of partitions (*r*1, *r*2, *r*3, ..., *r**n*) where the list may include 64 entries.
- Default will be all but the FREE, UNASGN, DIAG, SWAP, and PDUMP partitions.
- c-d* = A range of partition numbers where a list of up to 32 ranges (*p*0-*p*1, *p*2-*p*3, *p*4-*p*5, ..., *p**m*-*p**n*) may be specified. A range has the format *c-d* where *d* must be greater than *c*.
- e* = Second member number. If MHD *e* or MATE is not specified, MATE is the default.
- g-h* = A range of partition numbers where a list of up to 32 ranges (*p*0-*p*1, *p*2-*p*3, *p*4-*p*5, ..., *p**m*-*p**n*) may be specified. A range has the format *g-h* where *h* must be greater than *g*.
- i* = An integer value indicating the size of the Input/Output (I/O) buffers as a multiple of disk blocks. The legal values are 1-256. If BLOCKS is not specified, the default is 256. However, if BLOCKS is not specified, and the RO option is used, then the default is 128.

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RO = All blocks on specified moving head disks (MHDs) or partitions will be read into memory, but no comparison will be performed. If MHD *e* or MATE is not specified, the reads will only be performed on MHD *a*.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a CMPR-MHD output message.

5. REFERENCES

Input Message(s)

CMPR:MHD

COPY:DIFF;MHD

DUMP:MHD;BLK

STOP:CMPR;MHD

Output Message(s)

CMPR-MHD

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ID COPY:ACTDISK
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Copies a file from an active disk to an offline (OFL) or out-of-service (OOS) disk. The file can be a regular file, a contiguous file (type "C" or "x"), or a block device (type "b", partition or file system). For a regular or contiguous file, the destination file will be created with type, owner, and permission flags similar to those of the source file.

2. FORMAT

COPY:ACTDISK :MHD *a* ,SRC "*b*" ,PTN "*c*" [,DEST "*d*"]!

3. EXPLANATION OF MESSAGE

- a* = Specifies destination disk unit (0-255). This disk should not be active.
- b* = Full pathname of the file to be copied. This file should exist on an active disk. See the User Guidelines in this manual for definitions of pathname and file.
- c* = Special device filename or number of the destination partition on the non-active disk. If a name is specified, then this partition should exist on the active disk.
- d* = A pathname where the file is to be written, on the non-active file system. If this name is not specified, the path name of the source file will be used. If the name starts with a /, then the mount point will be excluded. This name should not be specified if the source is a partition or file system.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a COPY-ACTDISK output message.

5. REFERENCES

Output Message
COPY-ACTDISK

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ID COPY:ADDR
 GENERIC UNIX RTR R1.5, R6.4,
 R21.3, R21.11, R21.15 and
 later
 TYPE Input

1. PURPOSE

Copies data from virtual addresses in main memory to other virtual addresses, registers, or computer generic access package (GRASP) utility variables as a response to a breakpoint.

Indirect addressing may be specified. The first listed offset is added to the value of the source address and the result is used as a virtual address of a location in main memory. The number of offsets specified defines the length of the chain of virtual addresses to be accessed in this way before accessing the desired range of source locations. For example, a single offset with value 0 uses the virtual address found in the source for the location to be copied.

2. FORMAT

COPY:ADDR *a* [, **OFF** *b*] [, **L** *c*] [, **NL** *c*] {; **ADDR** *d* | ; **UVAR** *e* | ; **REG** *f* } [, **WORD**] !

3. EXPLANATION OF MESSAGE

- a* = The starting virtual address for the source data in decimal, octal, or hexadecimal notation.
- b* = A single offset or list of up to five offsets. Omission of the keyword implies no indirect addressing. Offsets are in bytes unless the **WORD** option is specified.
- L** *c* = The length of the copy in bytes unless the **WORD** option is specified. The maximum is 128 bytes or 32 words. The default is 1 word or byte.
- NL** *c* = The operation will use the locations beginning *c* lower than the calculated address and ending at the address. The locations are used in ascending order.
- d* = The virtual address of the destination for the data in decimal, octal, or hexadecimal notation.
- e* = A GRASP utility variable (1-50), in decimal, to be written as the destination copy. Utility variable values are reset to zero at the end of a debugging session.

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f = The name of the register to be written as the destination copy. Valid register names are as follows:

R8	R9	R10	R11
RTC	TIMERS	SDR	PSW
HSR	T0	T1	T2
T3	T4	T5	T6
T7	SCRATCH0	SCRATCH1	ATBSAR
ATBSDR	ATBSCR	ATBQ	ATBPSW
ATBBGR	SBR0	SBR1	SBR2
SBR3	SBR4	SBR5	SBR6
SBR7	SYSBASE	TOPIS	UINTER
UINT0	UINT1	UINT2	UINT3
HG	PPR	BGR	CDR
IM or SM	ISC	CAR	SSRC
ERC	ISS	SSRS	HSRBGC
RNULL	PA	FP	AP
SP			

WORD = All addresses, offsets, and lengths are interpreted in terms of words (including addresses derived in address chains). If this option is omitted, values given are in bytes.

4. SYSTEM RESPONSE

?I = General syntax error or one of the following errors:

- INCONSISTENT KEYWORDS (NL-OFF)
Negative length not allowed without OFF.
- INVALID KEYWORD
ADDR is invalid in an immediate action.
- RANGE ERROR (UVAR)
Invalid utility variable number was specified.
- RANGE ERROR (L or NL)
Length specified is too long.
- INPUT ERROR (OFF COUNT)
Too many offsets listed.

IP = In progress. The message has been added to the WHEN action list.

NG = No good.

- BAD REG NAME
A named register is not a valid destination.

PF = Printout follows. Followed by a COPY-ADDR output message.

RL = Retry later. The system is in an overload condition.

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5. REFERENCES

Input Messages

COPY:PID
COPY:UID
DUMP:ADDR
LOAD:ADDR
WHEN:PID
WHEN:UID

Output Messages

COPY-ADDR
COPY-PID
COPY-REG
COPY-UID
COPY-UVAR

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

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ID COPY:BKDISK-A
GENERIC UNIX RTR R1.5 and R6.4
TYPE Input

1. PURPOSE

Copies selected on-line disk partitions to tape in the load disk from tape (LDFT) format. The partitions must be specified in a specification file. The default for the specification file name is /etc/pdtspec. The full pathname must be given for each partition, and only one partition can appear on each line.

If the system is booted on the primary root file system, for those partitions having backup partitions, the backup partitions are written to tape. If the system is booted on the backup root file system, the primary disk partitions are written to tape. Partitions without backup partitions are written from the primary partitions in both cases.

Format 1 begins copying the boot disk to magnetic tape.

Format 2 acknowledges the mounting of a new tape by the user.

2. FORMAT

[1] **COPY:BKDISK;START:SRC"*a*", TD "*b*", TPSIZE *c***
 [, FN "*d*"][, MRG] [, EXT] [, SKP]!

[2] **COPY:BKDISK;ACK:TPSIZE *c*!**

3. EXPLANATION OF MESSAGE

- a* = Pathname that specifies the boot disk. See the User Guidelines in this manual for a description of special device file names.
- b* = Special device file name of the tape drive to be used. See the User Guidelines in this manual for definitions and examples of tape device names.
- c* = Specifies the size of the tape mounted: 600 - 2400 feet. The format requires entry of the tape size separated from the keyword by a space.
- d* = Specification file name that contains a set of partitions to be written to tape. The full pathname of the file is required.
- MRG = Writes generic and data base partitions as one generic sequence. With this option, the specification file should contain both data base and generic partitions. As the default, if the specification file contains generic and data base partitions, then two sequences will be created.
- EXT = LDFT extended format tapes where the data blocks can be up to 6K bytes. This option cannot be used on a Kennedy tape drive controlled by UN134 PC.

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- SKP = Skip block usage bitmap and unused data blocks when writing file systems to tape. Use of this option is generally recommended, as it will conserve tape, if possible. This will usually be accompanied by time savings, as well. Note, however, that tape reading and writing time may approximately double when this option is used with streaming tape drives (drives without mechanical tensioners or vacuum columns) in a worst-case data scattering scenario.
- NODMTMSG = Upon completion, the DISMOUNT TAPE AND LABEL message will not be printed.

4. SYSTEM RESPONSE

- NG = No good. A fatal error was encountered because the actual disk writer or the user acknowledgement program (invoked by COPY:BKDISK;ACK) could not be initiated. Try to initiate the offending command again. If the process still fails, seek technical assistance.
- PF = Printout follows. Followed by a COPY-BKDISK output message.
- ?D = Error in the data field.

5. REFERENCES

Input Messages

COPY:BKDISK;ACK
STOP:BKDISK

Output Message

COPY-BKDISK

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Lucent Technologies 3B20D Computer

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ID COPY:BKDISK-B
GENERIC UNIX RTR R21.3 and
R21.11
TYPE Input

1. PURPOSE

Copies selected on-line disk partitions to tape in the load disk from tape (LDFT) format. The partitions must be specified in a specification file. The default for the specification file name is /etc/pdtspec. The full pathname must be given for each partition, and only one partition can appear on each line.

If the system is booted on the primary root file system, for those partitions having backup partitions, the backup partitions are written to tape. If the system is booted on the backup root file system, the primary disk partitions are written to tape. Partitions without backup partitions are written from the primary partitions in both cases.

Format 1 begins copying the boot disk to magnetic tape.

Format 2 acknowledges the mounting of a new tape by the user.

2. FORMAT

[1] **COPY:BKDISK;START:SRC"*a*", TD "*b*", TPSIZE *c*
[, FN "*d*"][, MRG] [, EXT] [, SKP] [, NODMTMSG] [, COM]!**

[2] **COPY:BKDISK;ACK:TPSIZE *c*!**

3. EXPLANATION OF MESSAGE

- a* = Pathname that specifies the boot disk. See the User Guidelines in this manual for a description of special device file names.
- b* = Special device file name of the tape drive to be used. See the User Guidelines in this manual for definitions and examples of tape device names.
- c* = Specifies the size of the tape mounted. The tape size for 9-track devices is in feet and in meters for digital audio tapes (DATs). The acceptable range for a 9-track tape size is 600 to 2400, and the acceptable range for a DAT tape size is 30 to 90. The format requires entry of the tape size separated from the keyword by a space.
- d* = Specification file name that contains a set of partitions to be written to tape. The full pathname of the file is required.
- MRG = Writes generic and data base partitions as one generic sequence. With this option, the specification file should contain both data base and generic partitions. As the default, if the specification file contains generic and data base partitions, then two sequences will be created.
- EXT = LDFT extended format tapes where the data blocks can be up to 6K bytes. This option cannot be used on a Kennedy tape drive

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controlled by a UN134 PC.

- SKP = Skip block usage bitmap and unused data blocks when writing file systems to tape. Use of this option is generally recommended, because it will conserve tape, if possible. This will usually save time also. Note, however, that tape reading and writing time may double when this option is used with streaming tape drives (drives without mechanical tensioners or vacuum columns) in a worst-case data scattering scenario.
- NODMTMSG = Upon completion, the DISMOUNT TAPE AND LABEL message will not be printed.
- COM = This option must be used when creating an RTR disk image that contains a common VTOC (a VTOC containing both the 3B20D VLMM and 3B21D lboot paritions) or when creating other generic text tapes that will be shared among 3B20D VLMM and 3B21D processors.

4. SYSTEM RESPONSE

- NG = No good. A fatal error was encountered because the actual disk writer or the user acknowledgement program (invoked by COPY:BKDISK;ACK) could not be initiated. Try the command again. If the process fails again, seek technical assistance.
- PF = Printout follows. Followed by a COPY-BKDISK output message.
- ?D = Error in the data field.

5. REFERENCES

Input Messages

COPY:BKDISK;ACK
COPY:T;TOP
STOP:BKDISK

Output Message

COPY-BKDISK

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Lucent Technologies 3B20D Computer

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ID COPY:BKDISK-C
GENERIC UNIX RTR R21.15 and
later
TYPE Input

1. PURPOSE

Copies selected on-line disk partitions to tape in the load disk from tape (LDFT) format. The partitions must be specified in a specification file. The default for the specification file name is /etc/pdtspec. The full pathname must be given for each partition, and only one partition can appear on each line.

If the system is booted on the primary root file system, for those partitions having backup partitions, the backup partitions are written to tape. If the system is booted on the backup root file system, the primary disk partitions are written to tape. Partitions without backup partitions are written from the primary partitions in both cases. Collectively the partitions make up one logical volume.

Format 1 copies the partitions to magnetic tape in single volume format.

Format 2 acknowledges the mounting of a new tape by the user. Format 2 is only used in conjunction with Format 1.

Format 3 copies partitions to a digital audio tape (DAT) in multi-volume format.

On a 3B21D Computer with a digital audio tape (DAT) drive, Format 3 is used to format the DAT with multiple logical volumes, provided the tape already contains the TOP file at the beginning of tape. (The TOP file is considered to be Session 1 Volume 0 and is written by the COPY:TAPE:TOP command.) One or more of these logical volumes form a backup session. A DAT may be formatted with no more than nine (1-9) backup sessions in sequential order. A backup session may contain any combination of logical volumes meeting the following criterion: the logical volumes within a session must be ordered such that any given volume identified by its logical volume number has a greater number than the previous volume in the session.

See section 3 for the mapping of logical volume numbers to the volume names they represent.

By default, Format 3 will try to append logical volumes to the current end of data mark. There are optional parameters for session and volume position to request that a logical volume be appended to the end of a specific logical volume on the DAT for the purpose of overwriting the DAT from that point forward. This option is only valid for overwriting logical volumes within the most recent backup session or for appending a logical volume for the next session to the last logical volume of the specified positioning session.

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2. FORMAT

- [1] **COPY:BKDISK;START:SRC "a",TD "b",TPSIZE c**
[,FN "d"][,MRG][,EXT][,SKP][,NODMTMSG][,COM]!
- [2] **COPY:BKDISK;ACK:TPSIZE c!**
- [3] **COPY:BKDISK;MULTI:SRC"a",TD "b",SESS e,VOL f**
[,PSESS g, PVOL h][,FN "d"][,MRG][,EXT][,SKP][,NODMTMSG][,COM]!

3. EXPLANATION OF MESSAGE

- a* = Pathname that specifies the boot disk. See the User Guidelines in this manual for a description of special device file names.
- b* = Special device file name of the tape drive to be used. See the User Guidelines in this manual for definitions and examples of tape device names.
- c* = Specifies the size of the tape mounted. The tape size for 9-track devices is in feet and in meters for digital audio tapes (DATs). The acceptable range for a 9-track tape size is 600 to 2400, and the acceptable range for a DAT tape size is 30 to 90. The format requires entry of the tape size separated from the keyword by a space.
- d* = Specification file name that contains a set of partitions to be written to tape. The full pathname of the file is required.
- e* = Backup session number which is used to group one or more logical volumes together. The first backup session on tape must be numbered backup session 1 and increased sequentially thereafter with a maximum value of 9.
- f* = Logical volume number which identifies the group of partitions being written to tape. The logical volume numbers have a range from 1 to 9 with the following association to logical volume names: 1 (AMTEXT), 2 (AMODD), 3 (SMTEXT), 4 (SMODD1), 5 (SMODD2), 6 (SMODD3), 7 (SMODD4), 8 (SMODD5), and 9 (SMODD6).
- g* = Positioning backup session number which identifies a backup session on tape. The range of positioning backup session numbers is 1 to 9. This number is used along with the positioning logical volume number to locate a specific logical volume on tape to which to append the new logical volume. The absence of the positioning fields will result in the logical volume being appended to the current end of data mark on tape.

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- h* = Positioning logical volume number. The range of positioning logical volume numbers is 0 to 9. Note that 0 is included in this range to allow for appending to the TOP file. Refer to the explanation of field *g* for more information.
- MRG = Writes generic and data base partitions as one generic sequence. With this option, the specification file should contain both data base and generic partitions. As the default, if the specification file contains generic and data base partitions, then two sequences will be created. Note that the default action is not supported for a multi-volume LDFT tape. The user must specify this option when the specification file contains both data base and generic partitions and input command Format 3 is being used.
- EXT = LDFT extended format tapes where the data blocks can be up to 6K bytes. This option cannot be used on a Kennedy tape drive controlled by a UN134 PC.
- SKP = Skip block usage bitmap and unused data blocks when writing file systems to tape. Use of this option is generally recommended, because it will conserve tape, if possible. This will usually save time also. Note, however, that tape reading and writing time may double when this option is used with streaming tape drives (drives without mechanical tensioners or vacuum columns) in a worst-case data scattering scenario.
- NODMTMSG = Upon completion, the DISMOUNT TAPE AND LABEL message will not be printed.
- COM = This option must be used when creating an RTR disk image that contains a common VTOC (a VTOC containing both the 3B20D VLMM and 3B21D lboot partitions) or when creating other generic text tapes that will be shared among 3B20D VLMM and 3B21D processors.

4. SYSTEM RESPONSE

- NG = No good. A fatal error was encountered because the actual disk writer or the user acknowledgement program (invoked by COPY:BKDISK;ACK) could not be initiated. Try the command again. If the process fails again, seek technical assistance.
- PF = Printout follows. Followed by a COPY-BKDISK output message.
- ?D = Error in the data field.

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5. REFERENCES

Input Messages

COPY:BKDISK;ACK

STOP:BKDISK

COPY:T;TOP

DUMP:BKTAPE

Output Message

COPY-BKDISK

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ID COPY:BKTAPE
GENERIC UNIX RTR R21.15 and
later
TYPE Input

1. PURPOSE

Copies the contents of a multi-volume formatted digital audio tape (DAT) from a source DAT drive to a destination DAT drive. The default action is to make a complete copy of the source DAT. If the optional session number is specified, then the multi-volume formatted data is copied from the beginning of the specified session on the source DAT and appended to the end of the previous session on the destination DAT.

2. FORMAT

COPY:BKTAPE:SRC "a", DEST "b" [,SESS c]!

3. EXPLANATION OF MESSAGE

- a* = Device filename of the source DAT drive. See the User Guidelines in this manual for definitions and examples of tape device names.
- b* = Device filename of the destination DAT drive. See the User Guidelines in this manual for definitions and examples of tape device names.
- c* = Session number on the source DAT. This session is the starting point for the copy from the source DAT. Valid session numbers are 1 through 9.

4. SYSTEM RESPONSE

PF = Printout follows, followed by a COPY-BKTAPE output message.

5. REFERENCES

Input Messages
COPY-BKDISK
DUMP-BKTAPE

Output Messages
COPY-BKTAPE

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID COPY:DIFF;MHD-A
GENERIC UNIX RTR R1.5, R6.4 and
R21.3
TYPE Input

1. PURPOSE

Compares disk partitions in order to detect differences. When a difference is found, data is copied from the source partition to the destination partition. The input arguments can specify disks or specific partitions. A disk partition may reside on the disk of its duplex mate, or on an arbitrary disk. Also, both partitions may reside on the same disk.

A difference generates a message which identifies the location of the difference. A copy will then be performed to correct the difference. The source argument is considered to contain the correct disk data. The mismatch messages provide an audit trail of corrected disk blocks.

****CAUTION****

Incorrect use of this input message can degrade system performance and result in disk data mutilation. This command should not be used without expert technical assistance.

2. FORMAT

COPY:DIFF;SRC,MHD *a* [,PTN {*b* | *c-d*}] ;DEST,{MATE | MHD *e* },[PTN {*b* | *g-h*}]
[:BLOCKS *i*]!

3. EXPLANATION OF MESSAGE

- a* = Source member number.
- b* and *f* = Partition number within a range of (0 to 63), or list of partitions (*r*1, *r*2, *r*3, ..., *r**n*) where the list may include 64 entries.

Default will be all but the FREE, UNASGN, DIAG, SWAP, and PDUMP partitions.
- c-d* = A range of partition numbers where a list of up to 32 ranges (*p*0-*p*1, *p*2-*p*3, *p*4-*p*5, ..., *p**m*-*p**n*) may be specified. A range has the format *c-d* where *d* must be greater than *c*.
- e* = Destination member number.
- g-h* = A range of partition numbers where a list of up to 32 ranges (*p*0-*p*1, *p*2-*p*3, *p*4-*p*5, ..., *p**m*-*p**n*) may be specified. A range has the format *g-h* where *h* must be greater than *g*.
- g&&h* = A range of partition numbers where a list of up to 32 ranges (*p*0&&*p*1, *p*2&&*p*3, *p*4&&*p*5, ..., *p**m*&&*p**n*) may be specified. A range has the format *g&&h* where *h* must be greater than *g*.

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i = An integer value indicating the size of the Input/Output (I/O) buffers as a multiple of disk blocks. The legal values are 1-256. If **BLOCKS** is not specified, the default number of 128 will be used.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a COPY-DIFF, MHD output message.

RL = Retry later. The system has a CMPR:MHD or COPY:DIFF input message in progress.

5. REFERENCES

Input Messages
CMPR:MHD
STOP: COPY; DIFF

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CAUTION
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INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID COPY:DIFF;MHD-B
GENERIC UNIX RTR 21.17 and later
TYPE Input

1. PURPOSE

Compares disk partitions in order to detect differences. When a difference is found, data is copied from the source partition to the destination partition. The input arguments can specify disks or specific partitions. A disk partition may reside on the disk of its duplex mate, or on an arbitrary disk. Also, both partitions may reside on the same disk.

A difference generates a message which identifies the location of the difference. A copy will then be performed to correct the difference. The source argument is considered to contain the correct disk data. The mismatch messages provide an audit trail of corrected disk blocks.

Only one COPY:DIFF or CMPR:MHD command is allowed to run at one time. If more than one is attempted, the DFC driver will deny the request and output an error code to that effect.

****CAUTION****

Incorrect use of this input message can degrade system performance and result in disk data mutilation. This command should not be used without expert technical assistance.

2. FORMAT

COPY:DIFF;SRC,MHD *a*[,PTN {*b* | *c-d*}]**;DEST,{MATE | MHD** *e*],[PTN {*f* | *g-h*}]
[:BLOCKS *i*]**!**

3. EXPLANATION OF MESSAGE

a = Source member number.

b and *f* = Partition number within a range of (0 to 63), or list of partitions (*r*1, *r*2, *r*3, ..., *r**n*) where the list may include 64 entries.

Default will be all but the FREE, UNASGN, DIAG, SWAP, and PDUMP partitions.

c-d = A range of partition numbers where a list of up to 32 ranges (*p*0-*p*1, *p*2-*p*3, *p*4-*p*5, ..., *p**m*-*p**n*) may be specified. A range has the format *c-d* where *d* must be greater than *c*.

e = Destination member number.

g-h = A range of partition numbers where a list of up to 32 ranges (*p*0-*p*1, *p*2-*p*3, *p*4-*p*5, ..., *p**m*-*p**n*) may be specified. A range has the format *g-h* where *h* must be greater than *g*.

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i = An integer value indicating the size of the Input/Output (I/O) buffers as a multiple of disk blocks. The legal values are 1-256. If BLOCKS is not specified, the default number of 128 will be used.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a COPY-DIFF, MHD output message.

5. REFERENCES

Input Message(s)
CMPR:MHD
STOP: COPY;DIFF

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID COPY:DIFF;MHD-C
GENERIC UNIX RTR 21.17 and later
TYPE Input

1. PURPOSE

Compares disk partitions in order to detect differences. When a difference is found, data is copied from the source partition to the destination partition. The input arguments can specify disks or specific partitions. A disk partition may reside on the disk of its duplex mate, or on an arbitrary disk. Also, both partitions may reside on the same disk.

A difference generates a message which identifies the location of the difference. A copy will then be performed to correct the difference. The source argument is considered to contain the correct disk data. The mismatch messages provide an audit trail of corrected disk blocks.

Only one COPY:DIFF or CMPR:MHD command is allowed to run at one time. If more than one is attempted, the DFC driver will deny the request and output an error code to that effect.

****CAUTION****

Incorrect use of this input message can degrade system performance and result in disk data mutilation. This command should not be used without expert technical assistance.

2. FORMAT

COPY:DIFF;SRC,MHD *a*[,PTN {*b* | *c-d*}] ;DEST,{MATE | MHD *e*},[PTN {*f* | *g-h*}]
[:BLOCKS *i*]!

3. EXPLANATION OF MESSAGE

a = Source member number.

b and *f* = Partition number within a range of (0 to 63), or list of partitions (*r*1, *r*2, *r*3, ..., *r**n*) where the list may include 64 entries.

Default will be all but the FREE, UNASGN, DIAG, SWAP, and PDUMP partitions.

c-d = A range of partition numbers where a list of up to 32 ranges (*p*0-*p*1, *p*2-*p*3, *p*4-*p*5, ..., *p**m*-*p**n*) may be specified. A range has the format *c-d* where *d* must be greater than *c*.

e = Destination member number.

g-h = A range of partition numbers where a list of up to 32 ranges (*p*0-*p*1, *p*2-*p*3, *p*4-*p*5, ..., *p**m*-*p**n*) may be specified. A range has the format *g-h* where *h* must be greater than *g*.

i = An integer value indicating the size of the Input/Output (I/O) buffers as a multiple of disk blocks. The legal values are 1-256. If

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BLOCKS is not specified, the default number of 128 will be used.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a COPY-DIFF, MHD output message.

5. REFERENCES

Input Message(s)

CMPR:MHD

STOP: COPY; DIFF

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ID COPY:OOSDISK
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Copies a specific file from an out-of-service disk to an active system disk. This message is typically used for retrieving a file from a software backup maintained on a spare disk.

2. FORMAT

COPY:OOSDISK;MHD *a*, SRC "*b*", DEST "*c*"[,PTN *d*]!

3. EXPLANATION OF MESSAGE

- a* = Specifies a non-active disk containing the source file (0-255).
- b* = Full pathname that specifies the file to be copied. See the User Guidelines in this manual for definition of pathname and file.
- c* = Pathname of the destination file.
- d* = Specifies partition number, where the source file resides in the out-of-service disk. If not specified, the partition corresponding to the file on the active disk will be used.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the COPY-OOSDISK output message.

5. REFERENCES

Output Message
COPY-OOSDISK

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID COPY:P;ALL-A
GENERIC UNIX RTR R1.5, R6.4,
R21.3 and R21.11
TYPE Input

1. PURPOSE

Copies one set of disk partitions into a corresponding set of partitions.

A duplex disk configuration is a prerequisite for the command to work properly. To ensure data consistency, one of the moving head disks (MHDs) of the duplex pair will be removed from service and the data from its copy of the source partition will be copied to the destination partition on the disk which is left active. After the copy is complete, the MHD which was removed from service will be restored.

****CAUTION****

All existing data in the destination partitions will be destroyed.

2. FORMAT

COPY:PTN:ALL, SRC "a", DEST "b"!

3. EXPLANATION OF MESSAGE

- a* = Full pathname of a file that specifies a list of partitions, or a special device filename of a partition to be copied. See the User Guidelines in this manual for definitions of pathname and file.
- b* = Full pathname of a file that contains the corresponding list of destination partitions, or the special device filename for a destination partition.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a COPY-PTN, ALL output message.

5. REFERENCES

Input Message
CLR:FILESYS;FILE

Output Message
COPY-PTN, ALL

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID COPY:P;ALL-B
GENERIC UNIX RTR R21.15 and
later
TYPE Input

1. PURPOSE

Copies one set of disk partitions into a corresponding set of partitions.

A duplex disk configuration is a prerequisite for the command to work properly. To ensure data consistency, one of the moving head disks (MHDs) of the duplex pair will be removed from service and the data from its copy of the source partition will be copied to the destination partition on the disk which is left active. After the copy is complete, the MHD which was removed from service will be restored.

****CAUTION****

All existing data in the destination partitions will be destroyed.

2. FORMAT

COPY:PTN:ALL, SRC "a", DEST "b" [,ACT]!

3. EXPLANATION OF MESSAGE

- a* = Full pathname of a file that specifies a list of partitions, or a special device filename of a partition to be copied. See the User Guidelines in this manual for definitions of pathname and file.
- b* = Full pathname of a file that contains the corresponding list of destination partitions, or the special device filename for a destination partition.
- ACT = Leaves the system in a duplex disk configuration as it copies the partitions.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a COPY-PTN,ALL output message.

5. REFERENCES

Input Message
CLR:FILESYS;FILE

Output Message
COPY-PTN,ALL

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ID COPY:PID
 GENERIC UNIX RTR R1.5, R6.4,
 R21.3, R21.11, R21.15 and
 later
 TYPE Input

1. PURPOSE

Copies data from virtual addresses in main memory to the computer generic access package (GRASP) utility variables.

Indirect addressing may be specified. The first listed offset is added to the value of the source address and the result is used as a virtual address of a location in main memory. The number of offsets specified defines the length of the chain of virtual addresses to be accessed in this way before accessing the desired range of source locations. For example, a single offset with value 0 uses the virtual address found in the source for the location to be copied.

2. FORMAT

COPY:PID *a*, **ADDR** *b* [, **OFF** *c*] [, **L** *d*] [, **NL** *d*] ; **UVAR** *e* [, **WORD**] !

3. EXPLANATION OF MESSAGE

- a* = Process ID of the target process.
- b* = The starting virtual address for the source data in decimal, octal, or hexadecimal notation.
- c* = A single offset or list of up to five offsets. Omission of the keyword implies no indirect addressing. Offsets are in bytes unless the **WORD** option is specified.
- L** *d* = The length of the file to be copied in bytes unless the **WORD** option is specified. The maximum is 128 bytes or 32 words. The default is 1 byte or 1 word.
- NL** *d* = Indicates that the operation should use the locations beginning *d* lower than the calculated address and ending at the address. The locations are used in ascending order. Usage and limitations are the same as for the **L** option.
- e* = A GRASP utility variable (1-50), in decimal, to be written as the address of the destination of the copy. Utility variable values are reset to zero at the end of a debugging session.
- WORD** = All addresses, offsets, and lengths are to be interpreted in words, including addresses derived in address chains. If this option is omitted, values given are assumed to be in bytes.

4. SYSTEM RESPONSE

- ?I = General syntax error or one of the following errors:
 - EXTRA KEYWORD (PID)

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PID is invalid in a breakpoint.

- INCONSISTENT KEYWORDS (NL-OFF)
Negative length not allowed without OFF.
- INPUT ERROR (OFF COUNT)
Too many offsets listed.
- INVALID KEYWORD
Destination of ADDR or REG not valid outside of a WHEN action list.
- RANGE ERROR (L or NL)
Length specified is too long.
- RANGE ERROR (PID)
Process ID is out of range.
- RANGE ERROR (UVAR)
Invalid utility variable number was specified.

NG = No good.

- BAD PID
The PID specified is for a process for which copies are not allowed.

PF = Printout follows. Followed by a COPY-PID output message.

RL = Retry later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages

COPY:ADDR
COPY:REG
COPY:UID
COPY:UVAR
DUMP:PID
LOAD:ADDR
LOAD:PMEM
LOAD:REG
LOAD:UVAR
OP:ST;PROC
OP:UMEM
OP:UMEM;MCH

Output Messages

COPY-ADDR
COPY-PID
COPY-REG
COPY-UID
COPY-UVAR

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3B20D Processor

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ID COPY:REG
 GENERIC UNIX RTR R1.5, R6.4,
 R21.3, R21.11, R21.15 and
 later
 TYPE Input

1. PURPOSE

Copies data from computer registers to virtual addresses in main memory and in registers as an action associated with a breakpoint. Copies data from registers to computer generic access package (GRASP) utility variables as either an immediate action or as an action associated with a breakpoint.

Indirect addressing may be specified. The first listed offset is added to the value of the source address and the result is used as a virtual address of a location in main memory. The number of offsets specified defines the length of the chain of virtual addresses to be accessed in this way before accessing the desired range of source locations. For example, a single offset with value 0 uses the virtual address found in the source for the location to be copied.

Format 1 is executed as an action associated with a breakpoint.

Format 2 is executed as either an immediate action or as an action associated with a breakpoint.

2. FORMAT

[1] **COPY:REG** *a* [, **OFF** *b*] [, **L** *c*] {;**ADDR** *d* |;**REG** *f* |;**UVAR**=*e*} [;**WORD**]!

[2] **COPY:REG** *a* [, **L** *c*];**UVAR** *e* [;**WORD**]!

3. EXPLANATION OF MESSAGE

a = Specifies a register to be read as the source for the copy.

Valid register names are as follows:

R0	—	General register R0
R1	—	General register R1
R2	—	General register R2
R3	—	General register R3
R4	—	General register R4
R5	—	General register R5
R6	—	General register R6
R7	—	General register R7
R8	—	General register R8
R9	—	Argument pointer AP
R10	—	Frame pointer FP
R11	—	Stack pointer SP
RTC	—	Real time clock
TIMERS	—	Timing circuit

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SDR	— Store data register
PSW	— Program status word
HSR	— Hardware status register
T0	— JE group temp subgroup scratch register T0
T1	— JE group temp subgroup scratch register T1
T2	— JE group temp subgroup scratch register T2
T3	— JE group temp subgroup scratch register T3
T4	— JE group temp subgroup scratch register T4
T5	— JE group temp subgroup scratch register T5
T6	— JE group temp subgroup scratch register T6
T7	— JE group temp subgroup scratch register T7
SCRATCH0	— JE group temp subgroup scratch register SCRATCH0
SCRATCH1	— JE group temp subgroup scratch register SCRATCH1
ATBSAR	— Register used by the ATB miss routine to temporarily store the SAR (store address register) contents
ATBSDR	— Register used by the ATB miss routine to temporarily store the SDR (store data register) contents
ATBSCR	— Register used by the ATB miss routine to temporarily store the SCR (store control register) contents
ATBQ	— Register used by the ATB miss routine to temporarily store the q register
ATBPSW	— Register used by the ATB miss routine to temporarily store the PSW (program status word) register
ATBBGR	— Register used by the ATB miss routine to temporarily store the BGR (bi-directional gating register)
SBR0	— Segment base register SBR0
SBR1	— Segment base register SBR1
SBR2	— Segment base register SBR2
SBR3	— Segment base register SBR3
SBR4	— Segment base register SBR4
SBR5	— Segment base register SBR5
SBR6	— Segment base register SBR6
SBR7	— Segment base register SBR7
SYSBASE	— Beginning address of UNIX® RTR Operating System tab
TOPIS	— Interrupt stack pointer
UINTER	— Shadow error register (uint_er) loaded during an error microinterrupt

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UINT0 — Error microinterrupt handler register UINT0
 UINT1 — Error microinterrupt handler register UINT1
 UINT2 — Error microinterrupt handler register UINT2
 UINT3 — Error microinterrupt handler register UINT3
 HG — Reserved register HG
 PPR — Pulse point register
 BGR — Bi-directional gating register
 CDR — Channel data register
 IM — Interrupt mask register IM
 ISC — IS (interrupt source) register clear
 CAR — Channel address register
 SSR — SSR (system status register) clear
 ERC — ER (error register) clear
 ISS — IS (interrupt source) register set
 SSRS — SSR (system status register) set
 HSRBGC — Bi-directional gating control bits of the HSR
 (hardware status register)
 RNULL — Null register
 PA — Program address register
 FP — Frame pointer FP
 SP — Stack pointer SP
 AP — Argument pointer AP

- b* = A single offset or list of up to five offsets. Omission of the keyword implies no indirect addressing. Offsets are in bytes unless the **WORD** option is specified. (Used as an action associated with a breakpoint.)
- L** *c* = The length of the copy assumed to be in bytes unless the **WORD** option is specified. The maximum is 128 bytes or 32 words. The default for an omitted or zero length is 1.
- d* = Specifies the destination virtual address for the data in decimal, octal, or hexadecimal notation. (Used as an action associated with a breakpoint.)
- e* = Specifies a GRASP utility variable (1-50), in decimal, to be written as the destination copy. Utility variable values are reset to 0 at the end of a debugging session. (Can be used as an immediate action or associated with a breakpoint.)

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f = Specifies the register to be written as the destination copy. (Used as an action associated with a breakpoint.) Valid register names are as follows:

R0	R1	R2	R3
R4	R5	R6	R7
R8	R9	R10	R11
RTC	TIMERS	SDR	PSW
HSR	T0	T1	T2
T3	T4	T5	T6
T7	SCRATCH0	SCRATCH1	ATBSAR
ATBSDR	ATBSCR	ATBQ	ATBPSW
ATBBGR	SBR0	SBR1	SBR2
SBR3	SBR4	SBR5	SBR6
SBR7	SYSBASE	TOPIS	UINTER
UINT0	UINT1	UINT2	UINT3
HG	PPR	BGR	CDR
IM	ISC	CAR	SSRC
ERC	ISS	SSRS	HSRBGC
RNULL	PA	FP	AP
SP			

WORD = All addresses and lengths are in terms of words. If this option is omitted, values given are assumed to be in bytes.

4. SYSTEM RESPONSE

?I = General syntax error or one of the following errors:

- **EXTRA KEYWORD (OFF)** Indirection not allowed except as action of a **WHEN**.
- **INCONSISTENT KEYWORDS (NL-OFF)** Negative length not allowed without **OFF**.
- **INVALID KEYWORD** Destination of **ADDR** or **REG** not valid outside of a **WHEN** action list.
- **RANGE ERROR (UVAR)** Invalid utility variable number was specified.
- **RANGE ERROR (L or NL)** Length specified is too long.

IP = In progress. The message has been added to the **WHEN** action list.

NG = No good.

- **BAD REG NAME**
A named register is not a valid source or destination.

PF = Printout follows. Followed by a **COPY-REG** output message.

RL = Retry later. The system is in an overload condition, or wait for previous **OP:UMEM** or **OP:UMEM;MCH** to complete.

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5. REFERENCES

Input Messages

COPY:ADDR
COPY:PID
COPY:UID
COPY:UVAR
DUMP:REG
LOAD:ADDR
LOAD:REG
LOAD:UVAR
OP:UMEM
OP:UMEM;MCH
WHEN:PID
WHEN:UID

Output Messages

COPY-ADDR
COPY-PID
COPY-REG
COPY-UID
COPY-UVAR

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3B20D Processor

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ID COPY:SPDISK
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Copies a specific partition, or a list of partitions, from one of the system disks to an active spare disk. This command is typically used for generating a backup copy of the software on a system disk. The system disk pair must be duplexed to use this input message.

2. FORMAT

COPY:SPDISK;SRC "a", DEST "b"!

3. EXPLANATION OF MESSAGE

- a* = Full pathname of a file that contains a list of partitions, or a special device file name of a partition, to be copied. See the User Guidelines in this manual for definitions of full pathname and special device file name.
- b* = Filename for the corresponding list of destination partitions, or the special device filename for a destination partition.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a COPY-SPDISK output message.

5. REFERENCES

Output Message
COPY-SPDISK

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ID COPY:T;EMERDMP
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Copies data from the emergency dump partition on a disk to a magnetic tape.

NOTE: If the resulting tape is to be read on a UNIX® system, it must be read using the dd command.

2. FORMAT

COPY:TAPE:EMERDMP, TD "a"!

3. EXPLANATION OF MESSAGE

a = Tape special device file name. See the User Guidelines in this manual for definition and examples of tape device names.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a COPY-TAPE,EMERDMP output message.

5. REFERENCES

Input Messages

CLR:EMERDMP

OP:EMERSTAT

OP:ST;FILESYS

Output Messages

COPY-T, EMERDMP

REPT-EMER, DUMP

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID COPY:T;IN
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Copies files from a magnetic tape containing full or relative pathnames and header information, and places them in their respective directories. This command can also print a table of contents of the tape.

****CAUTION****

If a full pathname is specified on the COPY:TAPE;OUT command line, directory information is retained and the file will be placed in the same directory it was copied from, overwriting any existing version.

NOTE: If the tape to be read was written on a UNIX® system, it must have been written using the cpio message with the -c option.

2. FORMAT

COPY:TAPE:IN, TD "a"[, TOC][[, BSDIR "b"]!

3. EXPLANATION OF MESSAGE

- a* = Tape special device file name. See the User Guidelines in this manual for definitions and examples of tape device names.
- TOC** = Table of contents. Prints a list of the files on the tape with their status information. No files are created.
- b* = Pathname of the base directory into which the files on the tape will be copied. See the User Guidelines in this manual for definitions of pathname and directory.

NOTE: If the relative path is specified on the COPY:TAPE;OUT command line, the default base directory is /cft/shl/cmds. Use the **BSDIR** option to specify an alternate base directory.

Remember, the **BSDIR** option does not apply if the full pathname was specified on the COPY:TAPE;OUT command line. Use the **TOC** option of COPY:TAPE;IN to determine how a file or list of files were copied to tape, that is whether copied by relative pathnames or by full pathnames.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a COPY-TAPE, IN output message.

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5. REFERENCES

Input Message
COPY:T;OUT

Output Messages
COPY-T, IN
COPY-T, OUT

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID COPY:T;OUT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Copies one or more files to a magnetic tape, along with full or relative pathnames and header (status) information.

Format 1 is used to copy one or more files with full pathnames. See the User Guidelines in this manual for a definition of full pathnames.

****CAUTION****

Use extreme caution when invoking this command with full pathnames.
Reading a tape that contains full pathnames may destroy existing data.

Format 2 is used to copy one or more files with relative pathnames. See the User Guidelines in this manual for a definition of relative pathnames.

NOTE: If the resulting tape is to be read on a UNIX® system, it must be read using the `cpio` command with the `-c` options.

2. FORMAT

- [1] **COPY:TAPE:OUT, TD "a" {,FN "b" | ,FLIST "c"}!**
- [2] **COPY:TAPE:OUT, TD "a" {,FN "d" | ,FLIST "e"},BSDIR "f"!**

3. EXPLANATION OF MESSAGE

- a* = Tape special device file name. See the User Guidelines in this manual for definitions and examples of tape device names.
- b* = Full pathname of the single file to be written to the tape. See the User Guidelines in this manual for a definition of full pathname.
- c* = Pathname of a file that contains a list of full pathnames of the files to be written to the tape. Used if two or more files are to be written.
- d* = Relative pathname of the single file to be written to the tape. Specify the base directory via the **BSDIR** option. See the User Guidelines in this manual for a definition of relative pathname.
- e* = Pathname of a file that contains a list of relative pathnames of the files to be written to the tape. Used if two or more files are to be written. Specify the base directory via the **BSDIR** option.

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f = Pathname of the base directory where the file to be copied to tape is located. Relative pathnames are relative to this directory. See the User Guidelines in this manual for definitions of pathname and directory.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a COPY-TAPE, OUT output message.

5. REFERENCES

Input Message
COPY:T;IN

Output Messages
COPY-T, IN
COPY-T, OUT

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ID COPY:T;TEST
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Writes the diagnostic test tape header block onto a magnetic tape. A demand diagnostic phase for the tape unit verifies the tape has this header block (in low density) before using the tape for testing.

2. FORMAT

COPY:TAPE:TEST,TD "a"!

3. EXPLANATION OF MESSAGE

a = Tape special device file name. See User Guidelines for definition and examples of tape device names. Select low density and rewind. The diagnostic phase will not accept the tape if the header block is written in high density.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the COPY-TAPE,TEST output message.

5. REFERENCES

Output Message
COPY-TAPE,TEST

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ID COPY:T;TOP
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Copies a Tape-Only Program (TOP) file(s) from disk to tape. A TOP file contains writable microcode and the load disk from tape (LDFT) program used for a "deadstart." If the **COM** option is specified, the very large main memory (VLMM) TOP file and 3B21D TOP file are copied from disk to tape, strictly in that order. Otherwise, a hardware-platform-specific TOP file is copied. For example, if the current hardware platform is VLMM, /etc/topfile64 or /etc/topfile is copied to tape.

2. FORMAT

COPY:TAPE:TOP,TD "a", [COM]!

3. EXPLANATION OF MESSAGE

- a* = Tape special device file name. See the User Guidelines, in Section 2 of this manual, for definition and examples of tape device names.
- COM** = Option used to create a common TOP tape which consists of both the VLMM TOP file and the 3B21D TOP file.

NOTE: The input message with the **COM** option does not copy the standard main memory (SMM) or extended main memory (EMM) TOP file. If this option is not specified, the TOP file copied to tape will be the one for the current hardware platform. See the example in the **PURPOSE** section.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the COPY-T, TOP output message.

5. REFERENCES

Output Message
COPY-T, TOP

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ID COPY:UID
 GENERIC UNIX RTR R1.5, R6.4,
 R21.3, R21.11, R21.15 and
 later
 TYPE Input

1. PURPOSE

Copies data from virtual addresses in main memory to computer generic access package (GRASP) utility variables as an immediate action.

Indirect addressing may be specified. The first listed offset is added to the value of the source address and the result is used as a virtual address of a location in main memory. The number of offsets specified defines the length of the chain of virtual addresses to be accessed in this way before accessing the desired range of source locations. For example, a single offset with value 0 uses the virtual address found in the source for the location to be copied.

2. FORMAT

COPY:UID *a*, **ADDR** *b* [, **OFF** *c*] [, **L** *d* | , **NL** *d*] ; **UVAR** *e* [:**WORD**] !

3. EXPLANATION OF MESSAGE

- a* = The utility ID of the process from which the source data will be copied.
- b* = The starting virtual address for the data in decimal, octal, or hexadecimal notation.
- c* = A single offset or list of up to five offsets. Omission of the keyword implies no indirect addressing. Offsets are in bytes unless the **WORD** option is specified.
- L** *d* = The length of the copy in bytes unless the **WORD** option is specified. The maximum is 128 bytes or 32 words. The default is 1 byte or 1 word.
- NL** *d* = The operation will use the locations beginning *d* lower than the calculated address and ending at the address. The locations are used in ascending order.
- e* = A GRASP utility variable (1-50), in decimal, to be written as the destination copy. Utility variable values are reset to zero at the end of a debugging session.
- WORD** = All addresses, offsets, and lengths are to be interpreted in words, including addresses derived in address chains. If this option is omitted, values given are assumed to be in bytes.

4. SYSTEM RESPONSE

- ?I = General syntax error or one of the following errors:
 - EXTRA KEYWORD (UID)

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- UID is not valid in a WHEN action list.
- EXTRA KEYWORD (UID)
UID is invalid in a breakpoint.
- INCONSISTENT KEYWORDS (NL-OFF)
Negative length not allowed without OFF.
- INVALID KEYWORD
Destination of ADDR or REG not valid outside of a WHEN action list.
- RANGE ERROR (UID)
Utility ID is out of range.
- RANGE ERROR (UVAR)
Invalid utility variable number was specified.
- RANGE ERROR (L or NL)
Length specified is too long.
- INPUT ERROR (OFF COUNT)
Too many offsets listed.

NG BAD UID = No good. The UID specified is for a process for which copies are not allowed.

PF = Printout follows. Followed by the COPY-UID output message.

RL = Retry later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages

COPY:ADDR
COPY:PID
COPY:REG
COPY:UVAR
DUMP:UID
LOAD:UVAR
OP:UMEM
OP:UMEM;MCH

Output Messages

COPY-ADDR
COPY-PID
COPY-REG
COPY-UID
COPY-UVAR

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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 Input

1. PURPOSE

Copies data from a computer generic access package (GRASP) in utility variable to virtual addresses in main memory and in registers as an action associated with a breakpoint. A UVAR ID (utility variable) is a temporary variable that GRASP maintains. UVAR ID's can be in the range of 1-50 with each UVAR holding no more than four bytes of data. Copies data from another GRASP utility variable as an immediate action or as an action triggered by a breakpoint.

Indirect addressing may be specified. The first listed offset is added to the value of the source address and the result is used as a virtual address of a location in main memory. The number of offsets specified defines the length of the chain of virtual addresses to be accessed in this way before accessing the desired range of source locations. For example, a single offset with value 0 uses the virtual address found in the source for the location to be copied.

Format 1 is required by action to be triggered by a breakpoint; therefore it is not valid as a stand alone MML Command and must be an instruction within a defined breakpoint action list.

Format 2 is either executed immediately or triggered by a breakpoint.

2. FORMAT

[1] **COPY:UVAR** *a* [, **OFF** *b*] [, **L** *c*] [, **NL** *c*] {; **ADDR** *d* | ; **REG** *f*] [; **WORD**]!

[2] **COPY:UVAR** *a* [, **L** *c*] [, **NL** *c*] ; **UVAR** *e* [; **WORD**]!

3. EXPLANATION OF MESSAGE

- a* = A GRASP utility variable (1-50), in decimal, as the source for the copy. Utility variable values are reset to zero at the end of a debugging session.
- b* = A single offset or list of up to five offsets. Omission of the keyword implies no indirect addressing. Offsets are in bytes unless the **WORD** option is specified. (Used as an action associated with a breakpoint.)
- L** *c* = The length of the copy in bytes unless the **WORD** option is specified. The maximum is 128 bytes or 32 words. The default is 1.
- NL** *c* = The operation should use the locations beginning *c* lower than the calculated address and ending at the address. The locations are used in ascending order.

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- d* = The destination virtual address for the data in decimal, octal, or hexadecimal notation. (Used as an action associated with a breakpoint.)
- e* = A GRASP utility variable (1-50), in decimal, to be written as the destination copy. Utility variable values are reset to zero at the end of a debugging session. (Can be used as an immediate action or associated with a breakpoint.)
- f* = The register to be written as the destination of the copy. (Used as an action associated with a breakpoint.) Valid register names are as follows:
- AP — Argument pointer (AP)
 - ATBBGR — Register used by the ATB miss routine to temporarily store the bi-directional gating register (BGR)
 - ATBPSW — Register used by the ATB miss routine to temporarily store the program status word (PSW) register
 - ATBQ — Register used by the ATB miss routine to temporarily store the q register
 - ATBSAR — Register used by the ATB miss routine to temporarily store the store address register (SAR) contents
 - ATBSCR — Register used by the ATB miss routine to temporarily store the store control register (SCR) contents
 - ATBSDR — Register used by the ATB miss routine to temporarily store the store data register (SDR) contents
 - BGR — Bi-directional gating register
 - CAR — Channel address register
 - CDR — Channel data register
 - ERC — Error register (ER) clear
 - FP — Frame pointer (FP)
 - HG — Reserved register HG
 - HSRBGC — Bi-directional gating control bits of the hardware status register (HSR)
 - HSR — Hardware status register
 - IM — Interrupt mask (IM) register
 - ISC — Interrupt source (IS) register clear
 - ISS — IS register set
 - PA — Program address register
 - PPR — Pulse point register
 - PSW — Program status word
 - R0 — General register R0
 - R10 — Frame pointer
 - R11 — Stack pointer (SP)

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R1	— General register R1
R2	— General register R2
R3	— General register R3
R4	— General register R4
R5	— General register R5
R6	— General register R6
R7	— General register R7
R8	— General register R8
R9	— Argument pointer
RNULL	— Null register
RTC	— Real time clock
SBR0	— Segment base register SBR0
SBR1	— Segment base register SBR1
SBR2	— Segment base register SBR2
SBR3	— Segment base register SBR3
SBR4	— Segment base register SBR4
SBR5	— Segment base register SBR5
SBR6	— Segment base register SBR6
SBR7	— Segment base register SBR7
SCRATCH0	— JE group temp subgroup scratch register SCRATCH0
SCRATCH1	— JE group temp subgroup scratch register SCRATCH1
SDR	— Store data register
SP	— Stack pointer
SSRC	— System status register (SSR) clear
SSRS	— SSR set
SYSBASE	— Beginning address of UNIX® RTR Operating System tab
T0	— JE group temp subgroup scratch register T0
T1	— JE group temp subgroup scratch register T1
T2	— JE group temp subgroup scratch register T2
T3	— JE group temp subgroup scratch register T3
T4	— JE group temp subgroup scratch register T4
T5	— JE group temp subgroup scratch register T5
T6	— JE group temp subgroup scratch register T6
T7	— JE group temp subgroup scratch register T7
TIMERS	— Timing circuit
TOPIS	— Interrupt stack pointer
UINT0	— Error microinterrupt handler register UINT0
UINT1	— Error microinterrupt handler register UINT1
UINT2	— Error microinterrupt handler register UINT2
UINT3	— Error microinterrupt handler register UINT3
UINTER	— Shadow error register (uint_er) loaded during an error microinterrupt

WORD = Indicates that all addresses, offsets, and lengths are to be interpreted in terms of words, including addresses derived in address chains. If this option is omitted, values given are assumed to be in bytes.

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4. SYSTEM RESPONSE

- ?I = General syntax error or one of the following errors:
- EXTRA KEYWORD (OFF)
Indirection not allowed except as action of a WHEN.
 - INCONSISTENT KEYWORDS (NL-OFF)
Negative length not allowed without OFF.
 - INVALID KEYWORD
Destination of ADDR or REG not valid outside of a WHEN action list.
 - RANGE ERROR (UVAR)
Invalid utility variable number was specified.
 - RANGE ERROR (L or NL)
Length specified is too long.
- IP = In Progress. The message has been added to the WHEN action list.
- NG = No Good.
- BAD REG NAME 1
A named register is not a valid destination.
- PF = Printout Follows. Followed by a COPY-UVAR output message.
- RL = Retry Later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages

COPY:ADDR
COPY:PID
COPY:REG
COPY:UID
DUMP:UVAR
LOAD:ADDR
LOAD:REG
LOAD:UVAR
OP:UMEM
OP:UMEM;MCH
WHEN:PID
WHEN:UID

Output Messages

COPY-ADDR
COPY-PID
COPY-REG
COPY-UID
COPY-UVAR

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Processor

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ID DEL:LOG-A
GENERIC UNIX RTR R1.5 and R6.4
TYPE Input

1. PURPOSE

Deletes the selected contents of a logfile and cleans corrupt entries from the file. If the filename is the only criterion entered, only corrupt entries are deleted. Otherwise, only entries in the logfile that meet all of the specified criteria are deleted.

2. FORMAT

DEL:LOG;LG "*a*"[:**[DATE** *b*[-*c*],]**[TIME** *d*[-*e*],]**[KW** "*f*",]**[ID** *g*,]**[TYPE** *h*];

3. EXPLANATION OF MESSAGE

- a* = Name of the logfile. Any valid logfile name; for example, ULARP.
- b* = Start date as six-digit format (mmddyy) or ten-digit format (mmddyyhhmm). For example, 100257 = October 2, 1957; 0102571000 = January 2, 1957, at 10:00 a.m.
- c* = End date as six-digit format (mmddyy) or ten-digit format (mmddyyhhmm). The default is the start date. If supplied, this date must be in the same format (six or ten digits) as the start date.
- d* = Start time in hours and minutes format (hhmm). For example, 0110 = 1:10 a.m.
- e* = End time in hours and minutes format (hhmm). For example, 1530 = 3:30 p.m.
The default is the start time.

NOTE: When the six-digit date range is used in conjunction with a time range, the log entries will be deleted from start time to end time for each day in the range of start date through end date.

The ten-digit date allows the user to delete log entries from the start time on start date until end time on end date. Specifying the start time (variable *d*) and end time (variable *e*) with the ten-digit date range is invalid.

- f* = A keyword that appears in all entries that are to be deleted.
- g* = An optional four-digit decimal number which is used to link an item in a logfile with an entry in another file. The ID is filled in by the process that made the logfile entry; for example, 1234, 0017, 0003.

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h = An optional four-digit decimal number that specifies the type of entry on a logfile. This type is filled in by the process that made the logfile entry; for example, 1234, 0945, 0005.

4. SYSTEM RESPONSE

IP = In Progress.

NG = No Good.

— CANNOT ATTACH TO ECD

Could not attach to the equipment configuration data base (ECD).

5. REFERENCES

Input Message
OP: LOG

Output Messages
DEL - LOG
OP - LOG

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ID DEL:LOG-B
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Deletes the selected contents of a logfile and cleans corrupt entries from the file. If the filename is the only criterion entered, only corrupt entries are deleted. Otherwise, only entries in the logfile that meet all of the specified criteria are deleted.

2. FORMAT

DEL:LOG;LG "*a*"[:**DATE** *b*[-*c*],]**TIME** *d*[-*e*],]**KW** "*f*",]**ID** *g*,]**TYPE** *h*];

3. EXPLANATION OF MESSAGE

- a* = Name of the logfile. Any valid logfile name; for example, ULARP.
- b* = Start date as six-digit format (mmddyy) or ten-digit format (mmddyyhhmm). For example, 100257 = October 2, 1957; 0102571000 = January 2, 1957, at 10:00 a.m.
- c* = End date as six-digit format (mmddyy) or ten-digit format (mmddyyhhmm). The default is the start date. If supplied, this date must be in the same format (six or ten digits) as the start date.
- d* = Start time in hours and minutes format (hhmm). For example, 0110 = 1:10 a.m.
- e* = End time in hours and minutes format (hhmm). For example, 1530 = 3:30 p.m.
The default is the start time.

NOTE: When the six-digit date range is used in conjunction with a time range, the log entries will be deleted from start time to end time for each day in the range of start date through end date.
The ten-digit date allows the user to delete log entries from the start time on start date until end time on end date. Specifying the start time (variable *d*) and end time (variable *e*) with the ten-digit date range is invalid.

- f* = A keyword that appears in all entries that are to be deleted.
- g* = An optional decimal number (0 - 9999) which is used to link an item in a logfile with an entry in another file. The ID is filled in by the process that made the logfile entry.

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h = An optional decimal number (0 - 9999) that specifies the type of entry on a logfile. This TYPE is filled in by the process that made the logfile entry.

4. SYSTEM RESPONSE

IP = In Progress.

NG = No Good.

— CANNOT ATTACH TO ECD Could not attach to the equipment configuration data base (ECD).

5. REFERENCES

Input Messages
OP: LOG

Output Messages
DEL - LOG
OP - LOG

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ID DEL:PAUTH
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Deletes a person identity (IDENT) from the personal authority database (PAUTH).

2. FORMAT

DEL:PAUTH:IDENT "a"!

3. EXPLANATION OF MESSAGE

a = Identity of the person or group that uses the password prefix and suffix, in one to eight letters and/or digits.

4. SYSTEM RESPONSE

OK = Good. Personal authority deleted.

RL = Retry Later.

— AUTHORITY ADMINISTRATION UNDER UPDATE
Authority information is currently being updated.

NG = No Good.

— NON_EXISTENT PERSON IDENTITY
The given person identity does not exist in the personal authority administration.

— UNABLE TO ACCESS AUTHORITY ADMINISTRATION
Personal authority information is inaccessible.

5. REFERENCES

Input Messages

ADD:PAUTH

CHG:PAUTH

VFY:PAUTH

Output Message

VFY-PAUTH

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DEL:PCGRP
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Format 1 disassociates the command group (COMGR) from a personal identity (IDENT), thus preventing a user from accessing this group of commands. The IDENT for the personal group (PCGRP) must already exist in the personal authority (PAUTH) database.

Format 2 disassociates a profile from a personal identity. It prevents a user from accessing this group of commands.

2. FORMAT

This message has two formats.

- [1] **DEL:PCGRP:DATA,IDENT "a",COMGR b;**
- [2] **DEL:PCGRP:IDENT "a",PROFL "c";**

3. EXPLANATION OF MESSAGE

- a* = Identity of the person or group in one to eight letters and/or digits.
- b* = Command group.
- c* = A profile name which has been previously created and assigned to this user. The name is one to eight letters and/or digits.

4. SYSTEM RESPONSE

- OK = Good. Command group deleted from database.
- RL = Retry Later.
 - AUTHORITY ADMINISTRATION UNDER UPDATE
Authority information is currently being updated.
- NG = No Good.
 - NON-EXISTENT PERSON IDENTITY
The given person identity does not exist in the personal authority administration.
 - COMMAND GROUP NOT ASSIGNED TO THIS PERSON
The given command group was never assigned to this person identity.
 - PROFILE NOT ASSIGNED
Profile not assigned to the identity.
 - UNABLE TO ACCESS AUTHORITY ADMINISTRATION
Personal authority information is inaccessible.

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- NON-EXISTENT PROFILE IDENTITY
Profile does not exist in the database.
- PASSWORD ENHANCEMENT NOT ACTIVATED
The **PROFL** option with this command is valid only for applications running with the password enhancement feature.

5. REFERENCES

Input Messages

ADD:PAUTH
ADD:PCGRP
CHG:PAUTH
DEL:PAUTH
VFY:PAUTH
VFY:PCGRP

Output Messages

VFY-PAUTH
VFY-PCGRP

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ID DEL:PROFL
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Deletes an existing profile from the list of user profiles. A profile is a set of command groups. The profile is also deleted from any user to which it is assigned.

2. FORMAT

DEL:PROFL:IDENT "a"!

3. EXPLANATION OF MESSAGE

a = Identifying name of the profile to be deleted from the database. A maximum of eight characters may be used.

4. SYSTEM RESPONSE

OK = Good. Profile successfully deleted from the database.
RL - PROFILE ADMINISTRATION UNDER UPDATE = Retry later.
RL - AUTHORITY ADMINISTRATION UNDER UPDATE = Retry later.
NG - PROFILE IDENTITY DOES NOT EXIST = No good.
NG - UNABLE TO ACCESS PROFILE ADMINISTRATION = No good.
NG - PASSWORD ENHANCEMENT NOT ACTIVATED = No good. This command is valid only for applications running with the password enhancement feature enabled.

5. REFERENCES

Input Messages
ADD:PCGRP
ADD:PROFL
CHG:PROFL
DEL:PCGRP
VFY:PCGRP
VFY:PROFL

Output Message
VFY-PROFL

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ID DEL:TAUTH
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Deletes a terminal identity from the terminal authority (TAUTH) database.

2. FORMAT

DEL:TAUTH:TERM "a"!

3. EXPLANATION OF MESSAGE

a = Terminal identity in four characters, starting with tty.

4. SYSTEM RESPONSE

OK = Good. Terminal identity deleted from the database.

RL = Retry Later.

— AUTHORITY ADMINISTRATION UNDER UPDATE
Authority information is currently being updated.

NG = No Good.

— NON-EXISTENT TERMINAL IDENTITY
The given terminal identity does not exist in the terminal authority administration.

— INVALID TERMINAL IDENTITY
The given terminal identity is either not four characters in length or does not start with tty.

— UNABLE TO ACCESS AUTHORITY ADMINISTRATION
Terminal authority information is inaccessible.

5. REFERENCES

Input Messages
ADD:TAUTH
VFY:TAUTH

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ID DEL:TCGRP
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Disassociates the command group (COMGR) from a terminal identity (TERM), thus preventing a user from accessing this group of commands from that terminal. The TERM must already exist in the terminal authority (TAUTH) database.

2. FORMAT

This message has two formats.

- [1] **DEL:TCGRP:TERM "a",COMGR b;**
- [2] **DEL:TCGRP:TERM "a",PROFL "c";**

3. EXPLANATION OF MESSAGE

- a* = Terminal identity in four characters, starting with **tty**.
- b* = Command group.
- c* = A profile name which has been previously created and assigned to this terminal. The name is one to eight letters and /or digits.

4. SYSTEM RESPONSE

- OK = Good. Command group deleted from the database.
- RL = Retry Later.
 - AUTHORITY ADMINISTRATION UNDER UPDATE
Authority information is currently being updated.
- NG = No Good.
 - INVALID TERMINAL IDENTITY
The given terminal identity is either not four characters in length or does not start with **tty**.
 - NON-EXISTENT TERMINAL IDENTITY
The given terminal identity does not exist in the terminal authority administration.
 - NON-EXISTENT PROFILE IDENTITY
Profile does not exist in the database.
 - COMMAND GROUP NOT ASSIGNED TO THIS TERMINAL
The given command group has not been assigned to this terminal identity.
 - UNABLE TO ACCESS AUTHORITY ADMINISTRATION
Terminal authority information is inaccessible.

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5. REFERENCES

Input Messages

ADD:TAUTH

ADD:TCGRP

DEL:TAUTH

VFY:TAUTH

VFY:TCGRP

Output Messages

VFY-TAUTH

VFY-TCGRP

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ID DGN:CU
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Diagnoses the specified computer control unit (CU) complex or a specified unit within the CU complex.

Format 1 diagnoses the specified CU complex.

Format 2 diagnoses the central control (CC) unit.

Format 3 diagnoses the specified channel (CH).

Format 4 diagnoses the cache store unit (CSU).

Format 5 diagnoses the specified direct memory access (DMA) unit.

Format 6 diagnoses the specified main store controller (MASC) unit.

Format 7 diagnoses the store address translator (SAT) circuit pack.

Format 8 diagnoses the utility circuit (UC) circuit pack.

2. FORMAT

- [1] **DGN:CU** *a* [:**RAW**] [, **UCL**] [, **REX** | **DEX**] [:**TLP**]!
- [2] **DGN:CU** *a*, **CC** **0**[:**RPT** *c*][:**RAW**][:**UCL**][:**REX** | **DEX**][:**PH** *d*[-*e*]]
[, **TLP**]]!
- [3] **DGN:CU** *a*, **CH** *b*[:**RPT** *c*][:**RAW**][:**UCL**][:**REX** | **DEX**][:**PH** *d*[-*e*]]
[, **TLP**][, {**DFC** | **IOP**}*f*]]!
- [4] **DGN:CU** *a*, **CSU** **0**[:**RPT** *c*][:**RAW**][:**UCL**][:**REX** | **DEX**][:**PH** *d*[-*e*]]
[, **TLP**]]!
- [5] **DGN:CU** *a*, **DMA** *b*[:**RPT** *c*][:**RAW**][:**UCL**][:**REX** | **DEX**][:**PH** *d*[-*e*]]
[, **CONT**][:**TLP**]]!
- [6] **DGN:CU** *a*, **MASC** *b*[:**RPT** *c*][:**RAW**][:**UCL**][:**REX** | **DEX**][:**PH** *d*[-*e*]]
[, **TLP**]]!
- [7] **DGN:CU** *a*, **SAT** **0**[:**RPT** *c*][:**RAW**][:**UCL**][:**REX** | **DEX**][:**PH** *d*[-*e*]]
[, **TLP**]]!

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[8] **DGN:CU** *a*, **UC** 0[:**RPT** *c*][:**RAW**][:**UCL**][:**REX**|**DEX**][:**PH** *d[-e]*][:**TLP**]]!

3. EXPLANATION OF MESSAGE

a = Member number (0 or 1).

b = Subunit number. See the Member Numbers Appendix, MEM-NUM-APPD, Table D.

c = Number of times diagnostic is repeated. Maximum is 256; default is one.

NOTE: This option does not override early terminations. UCL can also be specified if the diagnostic terminates. Depending upon the tests, more information may be necessary before rerunning the diagnostics.

RAW = Print the diagnostic results of every phase. Default is the first five failures of each failing phase.

UCL = Unconditional execution.

NOTE: This option does not override forced early terminations (a forced termination is a manual input command; such as "STP:DMQ").

REX = Runs routine exercise phases in addition to the normal (automatic) phases. This option will not allow demand exercise phases to be run even if the range of phases specified includes such a phase.

DEX = Runs demand exercise phases in addition to routine exercise and normal (automatic) phases. (The fact that the "DEX" is specified allows the demand exercise phases to run. The "REX" phases are also allowed to run when "DEX" is specified). This option will not allow special demand-only phases which require user interaction to be run even if the range of phases specified includes such a phase. REX, DEX and demand-only phases are listed in the System Maintenance Manual.

d = The number of the first phase to be executed.

e = The number of the last phase to be executed.

PH = Protocol handler.

TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

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- NOTE:** It is recommended that the TLP and UCL parameters not be specified together because it may produce an improper TLP listing.
- f* = Member number of the DFC (0-7) or IOP (0-15) that is to be used as a helper unit. When a helper unit is required but the specified helper unit is inappropriate or unavailable, the helper unit dependent tests are skipped.
- CONT = Include only the specified unit (controller). Units attached to the specified unit will not be included. If the specified unit has no attached units, CONT is ignored. Format 5 is currently used by the DMA. If this parameter is not specified, the DMA controller and all channels connected to it are diagnosed.

4. SYSTEM RESPONSE

- PF = Printout Follows. Followed by a DGN-CU output message.
- RL = Retry Later. The system is in an overload condition.
- ?I = General syntax error, followed by the parameter position and one of the following reasons:
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - MISSING DATA
Data required for a keyword in the stated parameter block was not found.
 - MISSING KEYWORD
A required keyword is missing from the input. Unit to diagnose must be specified.
 - RANGE ERROR
Input is out of the valid range.
- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INCONSISTENT KEYWORD
The combination of keywords is not a valid combination.
 - INVALID DATA
Not a valid value for the phase option.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.

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5. REFERENCES

Input Appendix(es)
MEM-NUM-APPD

Input Message(s)
OP:DMQ
RMV:CU
RST:CU
STOP:DMQ
STP:DMQ

Output Message(s)
ANALY-TLPFILE
DGN-CU
OP-DMQ

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ID DGN:DCI
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Diagnoses the specified dual serial channel/computer interconnect (DCI).

2. FORMAT

DGN:DCI *a*[:**RPT** *b*][:**RAW**][:**UCL**][:**REX**|**DEX**][:**PH** *c*[-*d*][:**TLP**]
]!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

b = Number of times diagnostic is repeated. The maximum is 256. The default is one.

NOTE: This option does not override early terminations. **UCL** can also be specified if the diagnostic terminates. Depending upon the tests, more information may be necessary before rerunning the diagnostics.

RAW = Prints the diagnostic results of every phase. The default is the first five failures of each failing phase.

UCL = Unconditional execution.

NOTE: This option does not override forced early terminations (a forced termination is a manual input command; such as "STP:DMQ").

REX = Runs routine exercise phases in addition to the normal (automatic) phases. This option will not allow demand exercise phases to be run even if the range of phases specified includes such a phase.

DEX = Runs demand exercise phases in addition to routine exercise and normal (automatic) phases. (The fact that the "DEX" is specified allows the demand exercise phases to run. The "REX" phases are also allowed to run when "DEX" is specified). This option will not allow special demand-only phases that require user interaction to be run even if the range of phases specified includes such a phase. REX, DEX and demand-only phases are listed in the System Maintenance Manual.

c = The number of the first phase to be executed.

d = The number of the last phase to be executed.

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TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters should not be used together because additional test results may adversely affect the TLP listing.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by a DGN-DCI output message.

RL = Retry Later. The system is in an overload condition.

?I = General syntax error, followed by the parameter position and one of the following reasons:

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

MISSING DATA - Data required for a keyword in the stated parameter block was not found.

RANGE ERROR - Input is out of the valid range.

MISSING KEYWORD - A required keyword is missing from the input. Unit to diagnose must be specified.

?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

INVALID DATA - Not a valid value for the phase option.

INCONSISTENT KEYWORD - The combination of keywords is not a valid combination.

?E = Input error of undetermined type.

5. REFERENCES

Input Message(s)

OP:DMQ

RMV:DCI

RST:DCI

STOP:DMQ

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Output Message(s)
ANALY-TLPFILE
DGN-DCI
OP-DMQ

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ID DGN:DFC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Diagnoses the specified disk file controller (DFC).

NOTE: The moving head disk (MHD) cannot be diagnosed if the DFC is not in service. Therefore, a controller and its associated disk units cannot be diagnosed with one input message.

2. FORMAT

DGN:DFC *a*[:*RPT* *b*][, *RAW*][, *UCL*][, *REX* | , *DEX*][:*[PH* *c*[-*d*]][, *CONT*][, *TLP*][, *CU* *e*]]!

3. EXPLANATION OF MESSAGE

a = Member number (0-7).

b = Number of times diagnostic is repeated. The maximum is 256. The default is one.

NOTE: This option does not override early terminations. *UCL* can also be specified if the diagnostic terminates. Depending upon the tests, more information may be necessary before rerunning the diagnostics.

RAW = Prints the diagnostic results of every phase. The default is the first five failures of each failing phase.

UCL = Unconditional execution.

NOTE: This option does not override forced early terminations (a forced termination is a manual input command; such as "STP:DMQ").

REX = Runs routine exercise phases in addition to the normal (automatic) phases. This option will not allow demand exercise phases to be run even if the range of phases specified includes such a phase.

DEX = Runs demand exercise phases in addition to routine exercise and normal (automatic) phases. (The fact that the "DEX" is specified allows the demand exercise phases to run. The "REX" phases are also allowed to when "DEX" is specified). This option will not allow special demand-only phases which require user interaction to be run even if the range of phases specified includes such a phase. *REX*, *DEX* and demand-only phases are listed in the System Maintenance Manual.

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- c* = The number of the first phase to be executed.
- d* = The number of the last phase to be executed.
- CONT = Includes only the specified unit (controller). Units attached to the specified unit will not be included. Default is diagnose DFC variable *a* only.
- TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters should not be used together because additional test results may adversely affect the TLP listing.

- e* = Member number of the control unit (CU) helper unit (0 or 1). When a helper unit is not required, the specified helper unit is not used. When a helper unit is required but the specified helper unit is inappropriate or unavailable, the helper unit dependent tests are skipped. The off-line CU is required as a helper unit when demand phase 15 is executed.

NOTE: The helper CU must be out-of-service (OOS) and must be diagnosed as all tests passed (ATP) before it is used as a helper unit.

4. SYSTEM RESPONSE

- PF = Printout Follows. Followed by a DGN-DFC output message.
- RL = Retry Later. The system is in an overload condition.
- ?I = General syntax error, followed by the parameter position and one of the following reasons:

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

MISSING DATA - Data required for a keyword in the stated parameter block was not found.

RANGE ERROR - Input is out of the valid range.

MISSING KEYWORD - A required keyword is missing from the input. Unit to diagnose must be specified.

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?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

INVALID DATA - Not a valid value for the phase option.

INCONSISTENT KEYWORD - The combination of keywords is not a valid combination.

?E = Input error of undetermined type.

5. REFERENCES

Input Message(s)

OP:DMQ
RMV:DFC
RST:DFC
STOP:DMQ

Output Message(s)

ANALY-TLPFILE
DGN-DFC
OP-DMQ

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ID DGN:DUIC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Diagnoses the specified direct user interface controller (DUIC).

NOTE: The input/output processor (IOP) must be in service before the DUIC can be diagnosed.

2. FORMAT

DGN:DUIC *a*[:**RPT** *b*][,**RAW**][,**UCL**][,**REX**]**|**[**DEX**]][:**[PH** *c*[-*d*]]][,**TLP**][,**CONT**]]!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

b = Number of times the diagnostic is repeated. The maximum is 256. The default is one.

NOTE: This option does not override early terminations. UCL can also be specified if the diagnostic terminates. Depending upon the tests, more information may be necessary before rerunning the diagnostics.

RAW = Prints the diagnostic results of every phase. The default is the first five failures of each failing phase.

UCL = Unconditional execution.

NOTE: This option does not override forced early terminations (a forced termination is a manual input command; such as "STP:DMQ).

REX = Runs routine exercise phases in addition to the normal (automatic) phases. This option will not allow demand exercise phases to be run even if the range of phases specified includes such a phase.

DEX = Runs demand exercise phases in addition to routine exercise and normal (automatic) phases. (The fact that the "DEX" is specified allows the demand exercise phases to run. The "REX" phases are also allowed to run when "DEX" is specified). This option will not allow special demand-only phases that require user interaction to be run even if the range of phases specified includes such a phase. REX, DEX and demand-only phases are listed in the System Maintenance Manual.

c = Number of the phase to be executed, or the first number in a range of phases.

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- d* = Specifies the last phase to be executed.
- TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters should not be used together because additional test results may adversely affect the TLP listing.

- CONT = Includes only the specified unit (controller). Units attached to the specified unit will not be included. If the specified unit has no attached units, CONT is ignored.

4. SYSTEM RESPONSE

- PF = Printout Follows. Followed by a DGN-DUIC output message.
- RL = Retry Later. The system is in an overload condition.
- ?I = General syntax error, followed by the parameter position and one of the following reasons:
- INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.
- EXTRA KEYWORD - Duplicate or extraneous keywords were input.
- MISSING DATA - Data required for a keyword in the stated parameter block was not found.
- RANGE ERROR - Input is out of the valid range.
- MISSING KEYWORD - A required keyword is missing from the input. Unit to diagnose must be specified.
- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:
- INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.
- EXTRA KEYWORD - Duplicate or extraneous keywords were input.
- INVALID DATA - Not a valid value for the phase option.
- INCONSISTENT KEYWORD - The combination of keywords is not a valid combination.
- ?E = Input error of undetermined type.

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5. REFERENCES

Input Message(s)

OP:DMQ
RMV:DUIC
RST:DUIC
STOP:DMQ
STP:DMQ

Output Message(s)

ANALY-TLPFILE
DGN-DUIC
OP-DMQ

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ID DGN:HSDC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Diagnoses the specified high-speed synchronous data link controller (HSDC).

NOTE: The input/output processor (IOP) must be in service before the HSDC can be diagnosed.

2. FORMAT

DGN:HSDC *a*[:[**RPT** *b*][, [**RAW**][, [**UCL**][, [**REX**][, [**DEX**]][:[**PH** *c*[-*d*]][, [**TLP**][, [**CONT**]]!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

b = Number of times the diagnostic is repeated. The maximum is 256. The default is one.

NOTE: This option does not override early terminations. UCL can also be specified if the diagnostic terminates. Depending upon the tests, more information may be necessary before rerunning the diagnostics.

RAW = Prints the diagnostic results of every phase. The default is the first five failures of each failing phase.

UCL = Unconditional execution.

NOTE: This option does not override forced early terminations (a forced termination is a manual input command; such as "STP:DMQ").

REX = Runs routine exercise (REX) phases in addition to the normal (automatic) phases. This option will not allow demand exercise phases to be run even if the range of phases specified includes such a phase.

DEX = Runs demand exercise (DEX) phases in addition to routine exercise and normal (automatic) phases. (The fact that the "DEX" is specified allows the demand exercise phases to run. The "REX" phases are also allowed to run when "DEX" is specified). This option will not allow special demand-only phases that require user interaction to be run even if the range of phases specified includes such a phase. REX, DEX and demand-only phases are listed in the System Maintenance Manual.

c = Specifies the first phase to be executed.

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- d* = Specifies the last phase to be executed.
- TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters cannot be used together because additional test results may adversely affect the TLP listing.

- CONT = Includes only the specified unit (controller). Units attached to the specified unit will not be included. If the specified unit has no attached units, CONT is ignored.

4. SYSTEM RESPONSE

- PF = Printout Follows. Followed by a DGN-HSDC output message.
- RL = Retry Later. The system is in an overload condition.
- ?I = General syntax error, followed by the parameter position and one of the following reasons:
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING DATA
Data required for a keyword in the stated parameter block was not found.
 - RANGE ERROR
Input is out of the valid range.
 - MISSING KEYWORD
A required keyword is missing from the input. Unit to diagnose must be specified.
- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID DATA
Not a valid value for the phase option.
 - INCONSISTENT KEYWORD
The combination of keywords is not a valid combination.
- ?E = Input error of undetermined type.

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5. REFERENCES

Input Message(s)

RMV:HSDC

RST:HSDC

RST:IOP

Output Message(s)

ANALY-TLPFILE

DGN-HSDC

RST-IOP

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ID DGN:IOP
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Diagnoses the specified input/output processor (IOP).

NOTE: The peripheral controllers cannot be diagnosed if the IOP is not in service. Therefore, an IOP and its associated peripheral controllers cannot be diagnosed with one input message.

2. FORMAT

DGN:IOP *a*[:**RPT** *b*][,**RAW**][,**UCL**][,**REX** | ,**DEX**][:**[PH** *c*[-*d*]][,**CONT**][,**TLP** [**,CU** *e*]]!

3. EXPLANATION OF MESSAGE

a = Member number (0-15).

b = Number of times diagnostic is repeated. The maximum is 256. The default is one.

NOTE: This option does not override early terminations. **UCL** should also be specified if the diagnostic terminates.

RAW = Prints the diagnostic results of every phase. The default is the first five failures of each failing phase.

UCL = Unconditional execution.

NOTE: This option does not override forced early terminations.

REX = Runs routine exercise phases in addition to the normal (automatic) phases. This option will not allow demand exercise phases to be run even if the range of phases specified includes such a phase.

DEX = Runs demand exercise phases in addition to routine exercise and normal (automatic) phases. This option will not allow special demand exercise phases that require user interaction to be run even if the range of phases specified includes such a phase.

c = The number of the first phase to be executed.

d = The number of the last phase to be executed.

CONT = Includes only the specified unit (controller). Units attached to the specified unit will not be included. Default is diagnose IOP variable *a* only.

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TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters should not be used together because additional test results may adversely affect the TLP listing.

e = Member number of the control unit (CU) helper unit (0 or 1). When a helper unit is not required, the specified helper unit is not used. When a helper unit is required but the specified helper unit is inappropriate or unavailable, the helper unit dependent tests are skipped. The off-line CU is required as a helper unit when demand phase 15 is executed.

NOTE: The helper CU must be out-of-service (OOS) and must be diagnosed as all tests pass (ATP) before it is used as a helper unit.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by a DGN - IOP output message.

RL = Retry Later. The system is in an overload condition.

?I = General syntax error, followed by the parameter position and one of the following reasons:

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

MISSING DATA - Data required for a keyword in the stated parameter block was not found.

RANGE ERROR - Input is out of the valid range.

MISSING KEYWORD - A required keyword is missing from the input. Unit to diagnose must be specified.

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?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

INVALID DATA - Not a valid value for the phase option.

INCONSISTENT KEYWORD - The combination of keywords is not a valid combination.

?E = Input error of undetermined type.

5. REFERENCES

Input Message(s)

OP:DMQ
RMV:IOP
RST:IOP
STOP:DMQ

Output Message(s)

ANALY-TLPFILE
DGN-IOP
OP-DMQ

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ID DGN:MHD
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Diagnoses the specified moving head disk (MHD).

NOTE: The disk file controller (DFC) must be in service before the MHD can be diagnosed.

2. FORMAT

DGN:MHD *a*[:**RPT** *b*][,**RAW**][,**UCL**][,**REX**]**|**,**DEX**][:**[PH** *c*[-*d*]]**[**,**TLP**]**[**,**CONT**]**]**!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

b = Number of times the diagnostic is repeated. The maximum is 256. The default is one.

NOTE: This option does not override early terminations. UCL can also be specified if the diagnostic terminates. Depending upon the tests, more information may be necessary before rerunning the diagnostics.

RAW = Prints the diagnostic results of every phase. The default is the first five failures of each failing phase.

UCL = Unconditional execution.

NOTE: This option does not override forced early terminations (a forced termination is a manual input command; such as "STP:DMQ").

REX = Runs routine exercise (REX) phases in addition to the normal (automatic) phases. This option will not allow demand exercise phases to be run even if the range of phases specified includes such a phase.

DEX = Runs demand exercise (DEX) phases in addition to routine exercise and normal (automatic) phases. (The fact that the "DEX" is specified allows the demand exercise phases to run. The "REX" phases are also allowed to run when "DEX" is specified). This option will not allow special demand-only phases that require user interaction to be run even if the range of phases specified includes such a phase. REX, DEX and demand-only phases are listed in the System Maintenance Manual.

c = Number of the first phase to be executed.

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- d* = Number of the last phase to be executed.
- TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters cannot be used together because additional test results may adversely affect the TLP listing.

- CONT = Includes only the specified unit (controller). Units attached to the specified unit will not be included. If the specified unit has no attached units, CONT is ignored.

4. SYSTEM RESPONSE

- PF = Printout Follows. Followed by a DGN-MHD output message.
- RL = Retry Later. The system is in an overload condition.
- ?I = General syntax error, followed by the parameter position and one of the following reasons:
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - MISSING DATA
Data required for a keyword in the stated parameter block was not found.
 - MISSING KEYWORD
A required keyword is missing from the input. Unit to diagnose must be specified.
 - RANGE ERROR
Input is out of the valid range.
- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INCONSISTENT KEYWORD
The combination of keywords is not a valid combination.
 - INVALID DATA
Not a valid value for the phase option.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.

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5. REFERENCES

Input Message(s)

OP:DMQ
RMV:MHD
RST:MHD
STOP:DMQ
STP:DMQ

Output Message(s)

ANALY-TLPFILE
DGN-MHD
OP-DMQ

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ID DGN:MT
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Diagnoses the specified magnetic tape (MT).

NOTE: The disk file controller (DFC) must be in service before the MT can be diagnosed.

2. FORMAT

DGN:MT *a* [; [**RPT** *b*] [, **RAW**] [, **UCL**] [, **REX** | , **DEX**]] [: [**PH** *c* [- *d*]] [, **TLP**] [, **CONT**]] !

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

b = Number of times the diagnostic is repeated. The maximum is 256. The default is one.

NOTE: This option does not override early terminations. UCL can also be specified if the diagnostic terminates. Depending upon the tests, more information may be necessary before rerunning the diagnostics.

RAW = Prints the diagnostic results of every phase. The default is the first five failures of each failing phase.

UCL = Unconditional (UCL) execution.

NOTE: This option does not override forced early terminations (a forced termination is a manual input command; such as "STP:DMQ").

REX = Runs routine exercise (REX) phases in addition to the normal (automatic) phases. This option will not allow demand exercise (DEX) phases to be run even if the range of phases specified includes such a phase.

DEX = Runs demand exercises phases in addition to routine exercise and normal (automatic) phases. (The fact that the "DEX" is specified allows the demand exercise phases to run. The "REX" phases are also allowed to run when "DEX" is specified). This option will not allow special demand-only phases which require user interaction to run even if the range of phases specified includes such a phase. REX, DEX and demand-only phases are listed in the System Maintenance Manual.

c = Number of the first phase to be executed.

d = Number of the last phase to be executed.

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TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters cannot be used together because additional test results may adversely affect the TLP listing.

CONT = Includes only the specified unit controller (CONT). Units attached to the specified unit will not be included. If the specified unit has no attached units, CONT is ignored.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by a DGN-MT output message.

RL = Retry Later. The system is in an overload condition.

?I = General syntax error, followed by the parameter position and one of the following reasons:

EXTRA KEYWORD — Duplicate or extraneous keywords were input.

INVALID KEYWORD — The keyword in the stated parameter position is not a valid keyword.

MISSING DATA — Data required for a keyword in the stated parameter block was not found.

MISSING KEYWORD — A required keyword is missing from the input. Unit to diagnose must be specified.

RANGE ERROR — Input is out of the valid range.

?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:

EXTRA KEYWORD — Duplicate or extraneous keywords were input.

INCONSISTENT KEYWORD — The combination of keywords is not a valid combination.

INVALID DATA — Not a valid value for the phase option.

INVALID KEYWORD — The keyword in the stated parameter position is not a valid keyword.

?E = Input error of undetermined type.

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5. REFERENCES

Input Message(s)

OP:DMQ

RMV:MT

RST:MT

Output Message(s)

ANALY-TLPFILE

DGN-MT

OP-DMQ

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ID DGN:MTC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Diagnoses the specified magnetic tape controller (MTC).

NOTE: The input/output processor (IOP) must be in service before the MTC can be diagnosed.

2. FORMAT

DGN:MTC *a*[:*RPT* *b*][:*RAW*][:*UCL*][:*REX*|*DEX*][:*PH* *c*[-*d*]][:*TLP*][:*CONT*][:*MT* *e*]]!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

b = Number of times the diagnostic is to be repeated. The maximum is 256. The default is one.

NOTE: This option does not override early terminations. UCL can also be specified if the diagnostic terminates. Depending upon the tests, more information may be necessary before rerunning the diagnostics.

RAW = Prints the diagnostic results of every phase. The default is the first five failures of each failing phase.

UCL = Unconditional execution.

NOTE: This option does not override forced early terminations (a forced termination is a manual input command; such as "STP:DMQ").

REX = Runs routine exercise (REX) phases in addition to the normal (automatic) phases. This option will not allow demand exercise (DEX) phases to be run even if the range of phases specified includes such a phase.

DEX = Runs DEX phases in addition to routine exercise and normal (automatic) phases. (The fact that the "DEX" is specified allows the demand exercise phases to run. The "REX" phases are also allowed to run when "DEX" is specified). This option will not allow special demand-only phases which require user interaction to be run even if the range of phases specified includes such a phase. REX, DEX and demand-only phases are listed in the System Maintenance Manual.

c = Specifies the number of the first phase to be executed.

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d = Specifies the last phase to be executed.

NOTE: Before phase 5 is executed, a diagnostic test tape with a write ring must be mounted on the specified magnetic tape (MT).

TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: It is not recommended that the TLP and UCL parameters be specified together since it may produce an improper TLP listing.

CONT = Includes only the specified unit (controller). Units attached to the specified unit will not be included. If the specified unit has no attached units, CONT is ignored.

e = Member number of the magnetic tape device that is to be used as a helper unit (0-255) needed by Phase 5. (PH=5/parameter "c" would cause Phase 5 to run. When a helper unit is not required, the specified helper unit is ignored. When a helper unit is required but the specified helper unit is inappropriate or unavailable, the helper unit dependent tests are skipped. Member number of the MT device helper unit is required when demand phase 5 is executed.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by a DGN-MTC output message.

RL = Retry Later. The system is in an overload condition.

?I = General syntax error, followed by the parameter position and one of the following reasons:

— EXTRA-KEYWORD

Duplicate or extraneous keywords were input.

— INVALID KEYWORD

The keyword in the stated parameter position is not a valid keyword.

— MISSING DATA

Data required for a keyword in the stated parameter block was not found.

— MISSING KEYWORD

A required keyword is missing from the input. Unit to diagnose must be specified.

— RANGE ERROR

Input is out of the valid range.

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- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INCONSISTENT KEYWORD
The combination of keywords is not a valid combination.
 - INVALID DATA
Not a valid value for the phase option.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.

5. REFERENCES

Input Message(s)

OP:DMQ
RMV:MTC
RST:MTC
STOP:DMQ
STP:DMQ

Output Message(s)

ANALY-TLPFILE
DGN-MTC
OP-DMQ

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ID DGN:MTTYC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Diagnoses the specified maintenance teletypewriter controller (MTTYC).

NOTE: The input/output processor (IOP) must be in service before the MTTYC can be diagnosed.

2. FORMAT

DGN:MTTYC *a*[:**RPT** *b*][:**RAW**][:**UCL**][:**REX**|**DEX**][:**PH** *c*[-*d*][:**TLP**][:**CONT**]]!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

b = Number of times the diagnostic is repeated. The maximum is 256. The default is one.

NOTE: This option does not override early terminations. UCL can also be specified if the diagnostic terminates. Depending upon the tests, more information may be necessary before rerunning the diagnostics.

RAW = Prints the diagnostic results of every phase. The default is the first five failures of each failing phase.

UCL = Unconditional execution.

NOTE: This option does not override forced early terminations (a forced termination is a manual input command; such as "STP:DMQ").

REX = Runs routine exercise (REX) phases in addition to the normal (automatic) phases. This option will not allow demand exercise (DEX) phases to be run even if the range of phases specified includes such a phase.

DEX = Runs DEX phases in addition to routine exercise and normal (automatic) phases. (The fact that the "DEX" is specified allows the demand exercise phases to run. The "REX" phases are also allowed to run when "DEX" is specified). This option will not allow special demand-only phases which require user interaction to be run even if the range of phases specified includes such a phase. REX, DEX and demand-only phases are listed in the System Maintenance Manual.

c = Specifies the first phase to be executed.

d = Specifies the last phase to be entered.

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TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters should not be used together because additional test results may adversely affect the TLP listing.

CONT = Includes only the specified unit (controller). Units attached to the specified unit will not be included. If the specified unit has no attached units, CONT is ignored.

4. SYSTEM RESPONSE

- PF = Printout Follows. Followed by a DGN-MTTYC output message.
- RL = Retry Later. The system is in an overload condition.
- ?I = General syntax error, followed by the parameter position and one of the following reasons:
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - MISSING DATA
Data required for a keyword in the stated parameter block was not found.
 - MISSING KEYWORD
A required keyword is missing from the input. Unit to diagnose must be specified.
 - RANGE ERROR
Input is out of the valid range.
- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INCONSISTENT KEYWORD
The combination of keywords is not a valid combination.
 - INVALID DATA
Not a valid value for the phase option.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.

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5. REFERENCES

Input Message(s)

OP:DMQ
RMV:MTTYC
RST:MTTYC
STOP:DMQ
STP:DMQ

Output Message(s)

ANALY-TLPFILE
DGN-MTTYC
OP-DMQ

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ID DGN:SCSDC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Diagnoses the specified scanner and signal distributor controller (SCSDC).

NOTE: The input/output processor (IOP) must be in service before the SCSDC can be diagnosed.

2. FORMAT

DGN:SCSDC *a*[:**RPT** *b*][,**RAW**][,**UCL**][,**REX**]**|**,**DEX**][:**[PH** *c*[-*d*]] [**,TLP**][,**CONT**]]!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

b = Number of times the diagnostic is repeated. The maximum is 256. The default is one.

NOTE: This option does not override early terminations. UCL can also be specified if the diagnostic terminates. Depending upon the tests, more information may be necessary before rerunning the diagnostics.

RAW = Prints the diagnostic results of every phase. The default is the first five failures of each failing phase.

UCL = Unconditional execution.

NOTE: This option does not override forced early terminations (a forced termination is a manual input command; such as "STP:DMQ").

REX = Runs routine exercise (REX) phases in addition to the normal (automatic) phases. This option will not allow demand exercise (DEX) phases to be run even if the range of phases specified includes such a phase.

DEX = Runs DEX phases in addition to routine exercise and normal (automatic) phases. (The fact that the "DEX" is specified allows the demand exercise phases to run. The "REX" phases are also allowed to run when "DEX" is specified). This option will not allow special demand-only phases that require user interaction to be run even if the range of phases specified includes such a phase. REX, DEX and demand-only phases are listed in the System Maintenance Manual.

c = Specifies the first phase to be executed.

d = Specifies the last phase to be executed.

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TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters cannot be used together because additional test results may adversely affect the TLP listing.

CONT = Diagnoses only the specified controller. Units attached to the specified controller will not be diagnosed.

4. SYSTEM RESPONSE

- PF = Printout Follows. Followed by a DGN-SCSDC output message.
- RL = Retry Later. The system is in an overload condition.
- ?I = General syntax error, followed by the parameter position and one of the following reasons:
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - MISSING DATA
Data required for a keyword in the stated parameter block was not found.
 - MISSING KEYWORD
A required keyword is missing from the input. Unit to diagnose must be specified.
 - RANGE ERROR
Input is out of the valid range.
- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INCONSISTENT KEYWORD
The combination of keywords is not a valid combination.
 - INVALID DATA
Not a valid value for the phase option.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.

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5. REFERENCES

Input Message(s)

OP:DMQ
RMV:SCSDC
RST:IOP
RST:SCSDC
STOP:DMQ
STP:DMQ

Output Message(s)

ANALY-TLPFILE
DGN-SCSDC
OP-DMQ
RST-IOP

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ID DGN:SDLC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Diagnoses the specified synchronous data link controller (SDLC).

NOTE: The input/output processor (IOP) must be in service before the SDLC can be diagnosed.

2. FORMAT

DGN:SDLC *a*[:**RPT** *b*][,**RAW**][,**UCL**][,**REX**]**|**,**DEX**][:**[PH** *c*[-*d*]]][,**TLP**][,**CONT**]]!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

b = Number of times the diagnostic is repeated. The maximum is 256. The default is one.

NOTE: This option does not override early terminations. UCL can also be specified if the diagnostic terminates. Depending upon the tests, more information may be necessary before rerunning the diagnostics.

RAW = Prints the diagnostic results of every phase. The default is the first five failures of each failing phase.

UCL = Unconditional execution.

NOTE: This option does not override forced early terminations (a forced termination is a manual input command; such as "STP:DMQ").

REX = Runs routine exercise (REX) phases in addition to the normal (automatic) phases. This option will not allow demand exercise (DEX) phases to be run even if the range of phases specified includes such a phase.

DEX = Runs DEX phases in addition to routine exercise and normal (automatic) phases. (The fact that the "DEX is specified allows the demand exercise phases to run. The "REX" phases are also allowed to run when "DEX" is specified). This option will not allow special demand-only phases which require user interaction to be run even if the range of phases specified includes such a phase. REX, DEX and demand-only phases are listed in the System Maintenance Manual.

c = Specifies the first phase to be executed.

d = Specifies the last phase to be executed.

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TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters cannot be used together because additional test results may adversely affect the TLP listing.

CONT = Diagnoses only the specified controller. Units attached to the specified controller will not be diagnosed.

4. SYSTEM RESPONSE

- PF = Printout Follows. Followed by a DGN-SDLC output message.
- RL = Retry Later. The system is in an overload condition.
- ?I = General syntax error, followed by the parameter position and one of the following reasons:
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - MISSING DATA
Data required for a keyword in the stated parameter block was not found.
 - MISSING KEYWORD
A required keyword is missing from the input. Unit to diagnose must be specified.
 - RANGE ERROR
Input is out of the valid range.
- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INCONSISTENT KEYWORD
The combination of keywords is not a valid combination.
 - INVALID DATA
Not a valid value for the phase option.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.

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5. REFERENCES

Input Message(s)

OP:DMQ
RMV:SDLC
RST:IOP
RST:SDLC
STOP:DMQ
STP:DMQ

Output Message(s)

ANALY-TLPFILE
DGN-SDLC
OP-DMQ
RST-IOP

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ID DGN:TTYC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Diagnoses the specified teletypewriter controller (TTYC).

NOTE: The input/output processor (IOP) must be in service before the TTYC can be diagnosed.

2. FORMAT

DGN:TTYC *a*[:**RPT** *b*][,**RAW**][,**UCL**][,**REX**]**|**,**DEX**][:**[PH** *c*[-*d*]]][,**TLP**][,**CONT**]]!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

b = Number of times the diagnostic is to be repeated. The maximum is 256. The default is one.

NOTE: This option does not override early terminations. UCL can also be specified if the diagnostic terminates. Depending upon the tests, more information may be necessary before rerunning the diagnostics.

RAW = Prints the diagnostic results of every phase. The default is the first five failures of each failing phase.

UCL = Unconditional execution.

NOTE: This option does not override forced early terminations (a forced termination is a manual input command; such as "STP:DMQ").

REX = Runs routine exercise (REX) phases in addition to the normal (automatic) phases. This option will not allow demand exercise (DEX) phases to be run even if the range of phases specified includes such a phase.

DEX = Runs DEX phases in addition to routine exercise and normal (automatic) phases. (The fact that the "DEX" is specified allows the demand exercise phases to run. The "REX" phases are also allowed to run when "DEX" is specified). This option will not allow special demand-only phases that require user interaction to be run even if the range of phases specified includes such a phase. REX, DEX and demand-only phases are listed in the System Maintenance Manual.

c = Specifies the first phase to be executed.

d = Specifies the last phase to be executed.

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TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters cannot be used together because additional test results may adversely affect the TLP listing.

CONT 1 Includes only the specified unit (controller). Units attached to the specified unit will not be included. If the specified unit has no attached units, CONT is ignored.

4. SYSTEM RESPONSE

- PF = Printout Follows. Followed by a DGN-TTYC output message.
- RL = Retry Later. The system is in an overload condition.
- ?I = General syntax error, followed by the parameter position and one of the following reasons:
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - MISSING DATA
Data required for a keyword in the stated parameter block was not found.
 - MISSING KEYWORD
A required keyword is missing from the input. Unit to diagnose must be specified.
 - RANGE ERROR
Input is out of the valid range.
- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INCONSISTENT KEYWORD
The combination of keywords is not a valid combination.
 - INVALID DATA
Not a valid value for the phase option.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.

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5. REFERENCES

Input Message(s)

OP:DMQ
RMV:TTYC
RST:TTYC
STOP:DMQ
STP:DMQ

Output Message(s)

ANALY-TLPFILE
DGN-TTYC
OP-DMQ

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ID DUMP:ADDR
 GENERIC UNIX RTR R1.5, R6.4,
 R21.3, R21.11, R21.15 and
 later
 TYPE Input

1. PURPOSE

Dumps the contents of a specified range of virtual addresses in the computer main memory as an action associated with a breakpoint. The range is specified by two addresses or an address and a length. The length defaults to a value of one.

If only one address is given, indirect addressing may be specified. In this case, the first offset listed is added to the contents of the given address and the result is interpreted as a virtual address. The number of offsets specified defines the length of the chain of virtual addresses to be accessed in this way before accessing the desired range of dump locations. For example, a single offset with value zero uses the virtual address found in the location specified in the DUMP:ADDR input message for the dump location.

2. FORMAT

DUMP:ADDR {*a-b* | *a* [, OFF *c*] [, L | , NL *d*]} [;WORD] /

3. EXPLANATION OF MESSAGE

- a* = Starting virtual address of the dump in decimal, binary, octal, or hexadecimal notation. Assumed to be a byte address unless the **WORD** option is used.
- b* = Ending virtual address of dump. Assumed to be a byte address unless the **WORD** option is used.
- c* = A single offset or list of up to five offsets. Omission of the keyword implies no indirect addressing. Offsets are in bytes unless the **WORD** option is used.
- L** *d* = The length of the dump, assumed to be in bytes unless the **WORD** option is used. Maximum 128 bytes or 32 words. Default is one, unless a range is explicitly specified. The actual range of addresses dumped will be rounded out to word address boundaries.
- NL** *d* = Indicator that the operation should use the locations beginning *d* lower than the calculated address and ending at the address. The locations are used in ascending order. Usage and limitation are the same as for the **L** option.
- WORD** = Indicates that all addresses, offsets, and lengths are to be interpreted as words, including addresses derived in address chains. If this option is omitted, they are assumed to be byte values.
- e* = Dump direction:
 - L** — Indicator that the operation should add the length *d* to the

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starting address to calculate the ending address.

NL — Indicator that the operation should use the locations beginning *d* lower than the calculated address and ending at the address. The locations are used in ascending order. Usage and limitation are the same as for the **L** option.

f = Addressing increment:

WORD - Indicates that all addresses, offsets, and lengths are to be interpreted in terms of words, including addresses derived in address chains. If this option is omitted, they are assumed to be byte values.

4. SYSTEM RESPONSE

IP = The input message has been added to the WHEN action list.

?I = General syntax error, or one of the following errors:

RANGE ERROR (L or NL)
Length specified is too long or zero.

MISSING KEYWORD
PID or UID must be specified except in a WHEN action list.

INCONSISTENT DATA (ADDR)
Address range must be in ascending order.

INPUT ERROR (OFF COUNT)
Too many offsets listed.

RL = Retry Later. The system is in an overload condition.

5. REFERENCES

Input Messages

DUMP:PID
DUMP:PMEM
DUMP:REG
DUMP:UID
WHEN:PID
WHEN:UID

Output Message

DUMP-ADDR

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ID DUMP:BKTAPE
GENERIC UNIX RTR R21.15 and
later
TYPE Input

1. PURPOSE

Displays the contents of the multi-volume digital audio tape [DAT] logical volume headers and optionally provides an estimate of how full the tape is.

2. FORMAT

DUMP:BKTAPE;TD "a" [,TPSIZE b]!

3. EXPLANATION OF MESSAGE

- a* = Device filename of the DAT drive. See the User Guidelines in this manual for definitions and examples of tape device names.
- b* = Length in meters of the DAT mounted on the specified drive. The length is used to estimate how full the tape is. Valid lengths are 30 through 90 meters.

4. SYSTEM RESPONSE

PF = Printout follows, followed by a DUMP-BKTAPE output message.

5. REFERENCES

Input Messages
COPY-BKDISK
COPY-BKTAPE

Output Messages
DUMP-BKTAPE

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ID DUMP:CACHE
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Dumps the contents of the offline cache into computer processor main memory. The portions of cache dumped are the ones which map to the kernel and interrupt stacks. The command will not be accepted if the other control unit (CU) is in the standby state.

The cache (1K bytes) is placed at virtual address 0x80000 for the interrupt stack portion and at virtual address 0x6a0000 for the kernel stack. In the case of the kernel stack, the address dumped to will not correspond to the actual start of the kernel stack. This offset is necessary to preserve the portions of the kernel stack which are not resident in the cache but which do map to the address range used for the cache kernel stack. Whether a particular stack entry is in cache or main memory is dependent upon whether the hardware is present and enabled, and the state of the ISTK bit in the PSW of the running process. The reconstruction of the kernel stack (both cache and main memory) is left to the user.

2. FORMAT

DUMP: CACHE!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

NG = No good. Could not access or reserve the unit control block (UCB) record of the mate CU, or the mate CU was not out of service.
PF = Printout follows. Followed by a DUMP-CACHE output message.

5. REFERENCES

Output Message
DUMP-CACHE

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ID DUMP:F;ALL
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Dumps the contents of an ASCII file.

2. FORMAT

DUMP:FILE:ALL, FN "a" [,OPL b]!

3. EXPLANATION OF MESSAGE

a = Pathname of the file. See User Guidelines for definitions of pathname and file.

NOTE: Dumps of directories and/or non-ASCII files may produce unpredictable output.

b = Number of segments output, specified in decimal. Default is 10 segments. Maximum number of segments is 999. Each segment has a maximum size of 1000 bytes or 20 lines.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the DUMP-FILE, ALL output message.

5. REFERENCES

Input Messages

DUMP:F;DATA
DUMP:F;PARTL

Output Messages

DUMP-F, ALL
DUMP-F, COMPLETED
DUMP-F, PARTL

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ID DUMP:F,DATA
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Dumps the contents of a file in the specified format. If no format is given, the dump is printed in octal.

2. FORMAT

DUMP:FILE:DATA, FN "a" [,b][,OPL c]!

3. EXPLANATION OF MESSAGE

- a* = Pathname of the file. The pathname is a list of the names of each directory leading to the file, and ends with the name of the specific file. Each name begins with a slash, and the entire pathname is enclosed in quotation marks. For example, /usr/a1/ssw/test means that /usr/a1/ssw represents the list of directory names and /test represents the file name.
- b* = Specifies the output format (default = octal):
- C — Interprets bytes in ASCII notation.
 - D — Interprets words in decimal notation.
 - O — Interprets words in octal notation.
 - X — Interprets words in hexadecimal notation.
- c* = Number of segments to be output: specified in decimal. Default is 10 segments. Maximum number is 999. Each segment has a maximum size of 1000 bytes or 20 lines.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by DUMP-FILE, PARTL output message.

5. REFERENCES

Input Messages
DUMP:F;ALL
DUMP:F;PARTL

Output Messages
DUMP-F,ALL
DUMP-F,PARTL

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ID DUMP:F;FORMAT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Dumps the contents of a file in the specified format. If no format is given, the dump is printed in octal.

2. FORMAT

DUMP:FILE:FORMAT, FN "a" [,b][,OPL c]!

3. EXPLANATION OF MESSAGE

- a* = Pathname of the file. The pathname is a list of the names of each directory leading to the file, and ends with the name of the specific file. Each name begins with a slash, and the entire pathname is enclosed in quotation marks. For example, `usr/a1/ssw/test` means that `/usr/a1/ssw/` represents the list of directory names and `/test` represents the file name.
- b* = Specifies the output format (default = octal):
 - C - Interprets bytes in ASCII notation.
 - D - Interprets words in decimal notation.
 - O - Interprets words in octal notation.
 - X - Interprets words in hexadecimal notation.
- c* = Number of segments output: specified in decimal. Default is 10 segments. Maximum is 999. Each segment has a maximum size of 1000 bytes or 20 lines.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by the DUMP-FILE,FORMAT output message.

5. REFERENCES

Input Messages

DUMP:F;ALL

DUMP:F;PARTL

Output Messages

DUMP-F,ALL

DUMP-F,FORMAT

DUMP-F,PARTL

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ID DUMP:F;PARTL-A
GENERIC UNIX RTR R1.5, R6.4 and
R21.3
TYPE Input

1. PURPOSE

Prints one or more lines of an ASCII file.

NOTE: Specifying a non-ASCII file may produce unpredictable output.

2. FORMAT

DUMP:FILE:PARTL, FN "a", LINE b[-c]!

3. EXPLANATION OF MESSAGE

- a* = Pathname of the file. See User Guidelines for the definition of a pathname.
- b* = Line number to be printed or first line of a range, specified in decimal. If the line number specified (limited to 1 through 131072) is larger than the number of lines in the file, the last line of the file is assumed.
- c* = Last line number of a range (limited to 1 through 131072). If larger than the number of lines in the file, the last line of the file is assumed.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the DUMP-FILE,PARTL output message.

5. REFERENCES

Input Messages
DUMP:F;ALL
DUMP:F;DATA

Output Messages
DUMP-F,ALL
DUMP-F,FORMAT
DUMP-F,PARTL

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ID DUMP:F;PARTL-B
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Prints one or more lines of an ASCII file.

NOTE: Specifying a non-ASCII file may produce unpredictable output.

2. FORMAT

DUMP:FILE:PARTL, FN "a", LINE b[-c][,OPL=d]!

3. EXPLANATION OF MESSAGE

- a* = Pathname of the file. See User Guidelines for the definition of a pathname.
- b* = Line number to be printed or first line of a range, specified in decimal. If the line number specified (limited to 1 through 131072 inclusive) is larger than the number of lines in the file, the last line of the file is assumed.
- c* = Last line number of a range (limited to 1 through 131072 inclusive). If larger then the number of lines in the file, the last line of the file is assumed.
- d* = Output is printed in segments to prevent a large dump from dominating the ROP. The OPL option specifies the decimal number of segments to output (1-999) with the default at 10 segments. Each printed segment will contain up to 800 bytes, which includes formatting space and line numbering.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the DUMP-FILE,PARTL output message.

5. REFERENCES

Input Messages
DUMP:F;ALL
DUMP:F;DATA

Output Messages
DUMP-F,ALL
DUMP-F,FORMAT
DUMP-F,PARTL

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ID DUMP:KERN
 GENERIC UNIX RTR R1.5, R6.4,
 R21.3, R21.11, R21.15 and
 later
 TYPE Input

1. PURPOSE

Dumps the contents of a specified range of virtual addresses in computer kernel as an immediate action. The range is specified by two addresses or an address and a length. The length defaults to a value of 1.

If only one address is given, indirect addressing may be specified. In this case, the first offset listed is added to the content of the given address and the result is interpreted as a virtual address. The number of offsets specified defines the length of the chain of virtual addresses to be accessed in this way before accessing the desired range of dump locations. For example, a single offset with value 0 uses the virtual address found in the location specified in the DUMP:KERN input message for the dump location.

2. FORMAT

DUMP:KERN {*a-b* | *a* [, **OFF** *c*][, {**L** | **NL**} *d*]}!

3. EXPLANATION OF MESSAGE

- a* = Starting virtual byte address of the dump, in decimal, octal, or hexadecimal.
- b* = Ending virtual byte address of the dump.
- c* = A single offset or list of up to five offsets. Omission of the keyword implies no indirect addressing.
- L** *d* = The length of the dump, assumed to be in bytes. The maximum is 128 bytes. The default is 1, unless a range is explicitly specified. The actual range of addresses to be dumped will be rounded out to word address boundaries.
- NL** *d* = Indicator that the operation should use the locations beginning *d* lower than the calculated address and ending at the address. The locations are used in ascending order. Usage and limitations are the same as for the **L** option.

4. SYSTEM RESPONSE

- IP = In progress. The message has been added to the WHEN action list.
- PF = Printout follows. Followed by a WHEN output message.

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- ?I = General syntax error, or one of the following errors:
- RANGE ERROR (L or NL)
Length specified is too long or zero.
 - MISSING KEYWORD
PID or UID must be specified except in a WHEN action list.
 - INCONSISTENT DATA (ADDR)
Address range must be in ascending order.
 - INPUT ERROR (OFF COUNT)
Too many offsets listed.
- RL = Retry later. The system is in an overload condition.

5. REFERENCES

Input Messages

DUMP:PID
DUMP:PMEM
DUMP:REG
DUMP:UID
WHEN:PID
WHEN:UID

Output Messages

DUMP-ADDR
WHEN-PID
WHEN-UID

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

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID DUMP:MHD;BLK-A
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Dumps the contents of a specified single disk block or a range of blocks, in hexadecimal. One disk block contains 512 bytes.

The moving head disk (MHD) does not have to be in the active state for this command to work.

****CAUTION****

Do not input this request at the same time as another request for the same MHD, because errors due to resource limitations may occur.

2. FORMAT

DUMP:MHD *a*;**BLOCK** *b*[-*c*][:**DEST** {**ROP**|"*d*"}]!

3. EXPLANATION OF MESSAGE

- a* = Member number (0-255).
- b* = Disk block offset from the start of the disk, specified in decimal (0-546048). May be the first block of a range of blocks. Block 0 is the first block of a disk.
- c* = Last block of a range of blocks (0-546048).
- DEST** = Destination of the output. Default is the inputting teletypewriter (TTY).
- ROP** = Receive-only printer (ROP). A maximum of five disk blocks can be directed to the ROP by a single input command.
- d* = Pathname of a file to receive the data. See User Guidelines for the definition of pathname. There is no limit on the number of disk blocks that can be directed to a file by a single input command.

4. SYSTEM RESPONSE

- PF** = Printout follows. Followed by the DUMP-MHD,BLOCK output message.

5. REFERENCES

Output Message
DUMP-MHD,BLOCK

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID DUMP:MHD;BLK-B
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Dumps the contents of a specified single disk block or a range of blocks, in hexadecimal. One disk block contains 512 bytes.

The moving head disk (MHD) does not have to be in the active state for this command to work.

****CAUTION****

Do not input this request at the same time as another request for the same MHD, because errors due to resource limitations may occur.

2. FORMAT

DUMP:MHD *a*;**BLOCK** *b*[-*c*][:**DEST** {**ROP**|"*d*"}]!

3. EXPLANATION OF MESSAGE

- a* = Member number (0-255).
- b* = Disk block offset from the start of the disk, specified in decimal (0-2147483646). May be the first block of a range of blocks. Block 0 is the first block of a disk.
- c* = Last block of a range of blocks (0-2147483646).
- DEST** = Destination of the output. Default is the inputting teletypewriter (TTY).
- ROP** = Receive-only printer (ROP). A maximum of five disk blocks can be directed to the ROP by a single input command.
- d* = Pathname of a file to receive the data. See User Guidelines for the definition of pathname. There is no limit on the number of disk blocks that can be directed to a file by a single input command.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by the DUMP-MHD,BLOCK output message.

5. REFERENCES

Output Message
DUMP-MHD,BLOCK

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ID DUMP:MHD;DEF-A
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Dump defect management information for a moving head disk (MHD).

2. FORMAT

DUMP:MHD *a*;**DEFECT** [:**FN** "*b*" | { : [**COMB**] [, **MFGR**] [, **TEMP**] | **ALL** }]!

3. EXPLANATION OF MESSAGE

This command is used to read the defect tables from an MHD. The tables specify the location of media defects. This information is used by the MHD's controller to map around defective areas on the media.

- This command should only be used for disk drives that support defect management; otherwise, the command will abort.
- The MHD does not have to be in the active state to execute this command.

If no options are specified, the COMB (combined) defect table will be output.

MHD = Identifies the MHD used in the message.

a = MHD member number (0-255).

FN = Indicates the filename to which the MFGR defect table will be written.

The file is formatted in a way that can be used as input to the **LOAD:MHD** command.

b = Full pathname that specifies the file to be written.

COMB = Requests the combined defect table.

This table represents the defect list currently being used by the MHD's controller to map around defects. The **COMB** defect table can be updated by using the **INIT:MHD** command with the **NEW** option. The update copies the current **MFGR** defect table to the **COMB** defect table.

MFGR = Requests the manufacturer's defect table.

This table represents the original defects supplied by the disk drive vendor and defects added by the user. This table is used to update the **COMB** defect table.

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TEMP = Requests the temporary defect table.

This table is currently not supported.

ALL = Requests all three defect tables: COMB, MFGR, and TEMP.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the DUMP-MHD, DEF output message.

5. REFERENCES

Input Message(s)

LOAD:MHD

INIT:MHD

Output Message(s)

DUMP-MHD, DEF

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ID DUMP:MHD;DEF-B
GENERIC UNIX RTR R6.4 only
TYPE Input

1. PURPOSE

Dump defect management information for a moving head disk (MHD).

2. FORMAT

DUMP:MHD *a*;**DEFECT** [:FN "*b*" | { : [**COMB**] [, **MFGR**] [, **TEMP**] | **ALL** }]!

3. EXPLANATION OF MESSAGE

This command is used to read the defect tables from an MHD. The tables specify the location of media defects. This information is used by the MHD's controller to map around defective areas on the media.

- This command should only be used for disk drives that support defect management; otherwise, the command will abort.
- The MHD does not have to be in the active state to execute this command.

If no options are specified, the COMB (combined) defect table will be output.

MHD = Identifies the MHD used in the message.

a = MHD member number (0-255).

FN = Indicates the user is specifying a file to which the MFGR defect table will be written.

For storage module device (SMD) MHD, the file is formatted in a way that can be used as input to the **LOAD:MHD** command.

For small computer system interface (SCSI) MHD, the contents of the file is purely informational and cannot be used as input to the **LOAD:MHD** command.

b = Full pathname that specifies the file to be written.

COMB = Requests the combined defect table.

For SMD MHD, this table represents the defect list currently being used by the MHD's controller to map around defects. The **COMB** defect table can be updated by using the **INIT:MHD** command with the **NEW** option. The update copies the current MFGR defect table to the **COMB** defect table.

For SCSI MHD, this table represents the GROWN defect list and contains only those defects added by the user. This list, in conjunction with the **PRIMARY** defect list (see MFGR option below), is used by the MHD's controller to map around media defects.

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MFGR = Requests the manufacturer's defect table.

For SMD MHD, this table represents the original defects supplied by the disk drive vendor and defects added by the user. This table is used to update the COMB defect table.

For SCSI MHD, this table represents the PRIMARY defect list and contains only those defects supplied by the disk drive vendor. This list, in conjunction with the GROWN defect list (see COMB option above), is used by the MHD's controller to map around media defects.

TEMP = Requests the temporary defect table. This table is currently not supported.

ALL = Requests all three defect tables: COMB, MFGR, and TEMP.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the DUMP-MHD, DEF output message.

5. REFERENCES

Input Messages

LOAD:MHD

INIT:MHD

Output Message

DUMP-MHD, DEF

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ID DUMP:MHD;DEF-C
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Dump defect management information for a moving head disk (MHD).

2. FORMAT

DUMP:MHD *a* ;DEFECT [;FN "*b*" | { : [[COMB] [, MFGR]] | ALL }]!

3. EXPLANATION OF MESSAGE

This command is used to read the defect tables from an MHD. The tables specify the location of media defects. This information is used by the MHD's controller to map around defective areas on the media.

- This command should only be used for disk drives that support defect management; otherwise, the command will abort.
- The MHD does not have to be in the active state to execute this command.

If no options are specified, the COMB (combined) defect table will be output.

MHD = Identifies the MHD used in the message.

a = MHD member number (0-255).

FN = Indicates the user is specifying a file to which the MFGR defect table will be written.

For storage module device (SMD) MHD, the file is formatted in a way that can be used as input to the **LOAD:MHD** command.

For small computer system interface (SCSI) MHD, the contents of the file is purely informational and cannot be used as input to the **LOAD:MHD** command.

b = Full pathname that specifies the file to be written.

COMB = Requests the combined defect table.

For SMD MHD, this table represents the defect list currently being used by the MHD's controller to map around defects. The **COMB** defect table can be updated by using the **INIT:MHD** command with the **NEW** option. The update copies the current **MFGR** defect table to the **COMB** defect table.

For SCSI MHD, this table represents the **GROWN** defect list and contains only those defects added by the user. This list, in conjunction with the **PRIMARY** defect list (see **MFGR** option below), is used by the MHD's controller to map around media defects.

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MFGR = Requests the manufacturer's defect table.

For SMD MHD, this table represents the original defects supplied by the disk drive vendor and defects added by the user. This table is used to update the COMB defect table.

For SCSI MHD, this table represents the PRIMARY defect list and contains only those defects supplied by the disk drive vendor. This list, in conjunction with the GROWN defect list (see COMB option above), is used by the MHD's controller to map around media defects.

ALL = Requests both defect tables: COMB and MFGR.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the DUMP-MHD, DEF output message.

5. REFERENCES

Input Messages

LOAD:MHD

INIT:MHD

Output Message

DUMP-MHD, DEF

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID DUMP:MHD;VTO
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Formats and prints the contents of a disk pack's volume table of contents (VTOC). The moving head disk (MHD) does not have to be in the active state for this command to work.

****CAUTION****

Do not input this request at the same time as another DUMP:MHD or VFY:MHD request, because errors may occur.

2. FORMAT

DUMP:MHD *a*; **VTOC** [:**SORT** {**B** | **P**}]!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).
SORT = Specifies the sort algorithm to be used in formatting the output data.
B — Sort by ascending disk block addresses (default).
P — Sort by ascending logical partition numbers.

NOTE: Disk packs used in the UNIX® RTR operating system must have a VTOC starting at block number zero.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the DUMP-MHD, VTOC output message.

5. REFERENCES

Input Message
VFY:MHD

Output Message
DUMP-MHD, VTOC

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ID DUMP:PID
 GENERIC UNIX RTR R1.5, R6.4,
 R21.3, R21.11, R21.15 and
 later
 TYPE Input

1. PURPOSE

Dumps the contents of the specified range of virtual addresses in computer main memory in the address space of the process with the specified process identifier. This message cannot be used as an action associated with a breakpoint. The range is specified by two addresses or as one address and a length. The length defaults to a value of 1.

If only one address is given, indirect addressing may be specified. In this case, the first offset listed is added to the value of the given address and the result is interpreted as another address. The number of offsets specified defines the length of the chain of virtual addresses to be accessed in this way before accessing the desired range of dump locations. For example, a single offset with value 0 uses the virtual address found in the location specified in the DUMP:PID input message for the dump location.

2. FORMAT

DUMP:PID *a*, ADDR {*b-c* | *b* [, OFF *d*][, {L | NL} *e*]} [; WORD] !

3. EXPLANATION OF MESSAGE

- a* = Process ID of the target process.
- b* = Starting virtual address of the dump in decimal, octal, or hexadecimal notation. Assumed to be a byte address unless the **WORD** option is used.
- c* = Ending virtual address of the dump. Assumed to be a byte address unless the **WORD** option is used.
- d* = A single offset or list of up to five offsets. Omission of the keyword implies no indirect addressing. Offsets are in bytes unless the **WORD** option is used.
- L** *e* = The length of the dump, assumed to be in bytes unless the **WORD** option is used. Maximum 128 bytes or 32 words. Default=1, unless a range is explicitly specified. The actual range of addresses to be dumped will be rounded out to word address boundaries.
- NL** *e* = Used to indicate that the operation should use the locations beginning *e* lower than the calculated address and ending at the address. The locations are used in ascending order. Usage and limitations are the same as for the **L** option.
- WORD** = Indicates that all addresses, offsets, and lengths are to be interpreted in terms of words including addresses derived in address chains. If this option is omitted, they are assumed to be byte values.

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4. SYSTEM RESPONSE

- NG = No Good. The PID is for a process for which dumps are not permitted.
- PF = Printout Follows. Followed by the DUMP-PID output message.
- ?A = INVALID KEYWORD Command not allowed in a WHEN action list.
- ?I = General syntax error, or one of the following errors:
- RANGE ERROR (L or NL)
Length specified is too long or zero.
 - MISSING KEYWORD
PID or UID must be specified except in a WHEN action list.
 - INCONSISTENT DATA (ADDR)
Address range must be in ascending order.
 - INPUT ERROR (OFF COUNT)
Too many offsets listed.
- RL = Retry Later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages

DUMP:ADDR
DUMP:PMEM
DUMP:REG
DUMP:UID
OP:ST;PROC
OP:UMEM
OP:UMEM;MCH

Output Message

DUMP-PID

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ID DUMP:PMEM
 GENERIC UNIX RTR R1.5, R6.4,
 R21.3, R21.11, R21.15 and
 later
 TYPE Input

1. PURPOSE

Dumps the contents of a specified range of physical addresses in computer main memory. The range is specified by two addresses or by one address and an optional byte length count. The default length is 4 bytes.

The output will contain formatted fullwords. If the addresses specified did not describe a set of fullwords, the addresses will be rounded out to fullword boundaries. For example, physical memory addresses X'4041-X'405D (in hexadecimal) would be treated as hexadecimal numbers X'4040-X'405F.

This message may be used either as an immediate command or in the action list of a WHEN.

2. FORMAT

DUMP:PMEM {*a-b* | *a* [, {**L** | **NL**} *c*]} {/ | !}

3. EXPLANATION OF MESSAGE

- a* = Starting (if **L** is used) or ending (if **NL** is used) physical address dump in decimal, octal, or hexadecimal notation. Value will be rounded down to a fullword address.
- b* = Ending physical address for dump in decimal, octal, or hexadecimal notation. Value will be rounded up to the next fullword boundary.
- L** *c* = Indicator that the ending address should be calculated by adding the byte length *c* to the starting address *a* and then rounding up to the next fullword boundary.
- NL** *c* = Byte length used to calculate the starting address. The byte length *c* is subtracted from the ending address *a* and then rounded down to a fullword boundary. The address *a* is rounded up to the next fullword boundary and is used as the ending address.

4. SYSTEM RESPONSE

- IP = In Progress. The message has been added to the WHEN action list.
- PF = Printout Follows. Followed by the DUMP-PMEM output message.
- ?I = General syntax error, or:
 - RANGE ERROR (L or NL)
 Length specified is too long or zero.
- RL = Retry Later. The system is in an overload condition.

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5. REFERENCES

Input Messages

DUMP:PID

DUMP:UID

WHEN:PID

WHEN:UID

Output Message

DUMP-PMEM

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ID DUMP:REG
 GENERIC UNIX RTR R1.5, R6.4,
 R21.3, R21.11, R21.15 and
 later
 TYPE Input

1. PURPOSE

Dumps the contents of one or more registers, either as an immediate action, or as an action associated with a breakpoint.

This message can also be used to dump an address range in main memory (by specifying a single register and offsets), but only if the message is part of an action list for a WHEN message.

If offsets are specified, the first offset is added to the contents of the specified register and the result is interpreted as a virtual address. The number of offsets specified defines the length of the chain of virtual addresses to be accessed in this way before accessing the desired range of dump locations. For example, a single offset with value 0 uses the virtual address found in the register for the memory dump location.

NOTE: Offsets can only be used if the DUMP:REG message is used as an action associated with a breakpoint, since that defines a process address space for memory addressing.

2. FORMAT

DUMP:REG *a* [,OFF *b*] [{L |NL} *c*] [:WORD] {/ |!}

3. EXPLANATION OF MESSAGE

a = Single register name or a list of registers to be dumped. See User Guidelines for instructions on entering a list of names. A maximum of five registers may be listed.

The following is a list of acceptable register names:

R0	R1	R2	R3
R4	R5	R6	R7
R8	R9	R10	R11
RTC	TIMERS	SAR	PA
SCR	SDR	SIR	HM
PSW	HSR	DSTBUS	SRCBUS
SSR	ER	ONES	IB
T0	T1	T2	T3
T4	T5	T6	T7
SCRATCH0	SCRATCH1	ATBSAR	ATBSDR
ATBSCR	ATBQ	ATBPSW	ATBBGR
SBR0	SBR1	SBR2	SBR3

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SBR4	SBR5	SBR6	SBR7
SYSBASE	TOPIS	UINTER	UINT0
UINT1	UINT2	UINT3	HG
PPR	BGR	CDR	IM or SM
IS	FP	AP	SP

- b* = Offset. Omission of the keyword implies no indirect addressing. Offsets are only allowed if one register is specified. Offsets are in bytes unless the **WORD** option is used.
- L** *c* = The length of the dump, in bytes unless the **WORD** option is used. The maximum is 128 bytes or 32 words for memory dumps and 4 bytes for register dumps. The default is 1 unless a range is explicitly specified. The actual range of addresses to be dumped will be rounded out to word address boundaries.
- NL** *c* = Indicator that the operation should use the locations beginning *c* lower than the calculated address and ending at the address. The locations are used in ascending order. Usage and limitations are the same as for the **L** option.
- WORD** = Indicates that all addresses, offsets, and lengths are to be interpreted in terms of words, including addresses derived in address chains. If this option is omitted they are assumed to be byte values.

4. SYSTEM RESPONSE

- IP** = In Progress. The message has been added to the **WHEN** action list.
- NG** = No Good.
- **BAD REG NAME**
- PF** = Printout Follows. Followed by the DUMP-REG output message.
- ?I** = General syntax error, or one of the following errors:
- **EXTRA KEYWORD**
Indirection not allowed except as an action of a **WHEN**.
- **INCONSISTENT DATA (REG LIST + OFF)**
No indirection permitted with more than one register listed.
- **INCONSISTENT KEYWORDS (NL-OFF)**
Negative length not allowed without **OFF**.
- **INPUT ERROR (REG COUNT)**
Too many registers listed.
- **INPUT ERROR (OFF COUNT)**
Too many offsets listed.
- **RANGE ERROR (L or NL)**
Length specified is too long or zero.
- RL** = Retry Later. The system is in an overload condition, or wait for previous **OP:UMEM** or **OP:UMEM;MCH** to complete.

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5. REFERENCES

Input Messages

DUMP:ADDR
DUMP:PID
DUMP:PMEM
DUMP:UID
OP:UMEM
OP:UMEM;MCH
WHEN:PID
WHEN:UID

Output Message

DUMP-REG

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ID DUMP:UID
 GENERIC UNIX RTR R6.4, R21.3,
 R21.11, R21.15 and later
 TYPE Input

1. PURPOSE

Dumps the contents of a specified range of virtual addresses in computer main memory in the address space of the process with the specified utility identifier. This message cannot be used as an action associated with a breakpoint.

The range is specified by two addresses or by one address and a length. The length defaults to a value of 1.

If only one address is given, indirect addressing may be specified. In this case, the first offset is added to the value of the given address and the result is interpreted as a virtual address. The number of offsets specified defines the length of the chain of virtual addresses to be accessed in this way before accessing the desired range of dump locations. For example, a single offset with value 0 uses the virtual address found in the location specified in the DUMP:UID message for the dump location.

2. FORMAT

DUMP:UID *a*, **ADDR** {*b-c* | *b* [, **OFF** *d*] [, {**L** | **NL**} *e*] } [:**WORD**] !

3. EXPLANATION OF MESSAGE

- a* = Utility ID number of the target process.
- b* = Starting virtual address of the dump in decimal, binary, octal, or hexadecimal notation. Assumed to be a byte address unless the **WORD** option is used.
- c* = Ending virtual address of dump. Assumed to be a byte address unless the **WORD** option is used.
- d* = Offset. Omission of the keyword implies no indirect addressing. Offsets are in bytes unless the **WORD** option is used.
- L** *e* = The length of the dump, in bytes unless the **WORD** option is used. The maximum is 128 bytes or 32 words. The default is 1, unless a range is explicitly specified. The actual range of addresses to be dumped will be rounded out to word address boundaries.
- NL** *e* = Indicator that the operation should use the locations beginning *e* lower than the calculated address and ending at the address. The locations are used in ascending order. Usage and limitations are the same as for the **L** option.
- WORD** = Indicates that all addresses, offsets, and lengths are to be interpreted in terms of words including addresses derived in address chains. If this option is omitted they are assumed to be byte values.

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4. SYSTEM RESPONSE

- ?A = INVALID KEYWORD Message not allowed in a WHEN action list.
- ?I = General syntax error, or one of the following errors:
- EXTRA KEYWORD (UID)
UID is not valid in a WHEN action list.
 - INCONSISTENT DATA (ADDR)
Address range must be in ascending order.
 - INPUT ERROR (OFF COUNT)
Too many offsets listed.
 - RANGE ERROR (L or NL)
Length specified is too long or zero.
 - RANGE ERROR (UID)
Utility ID is out of range.
- NG = No good. The UID is for a process for which dumps are not permitted.
- PF = Printout follows. Followed by the DUMP-UID output message.
- RL = Retry later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages

DUMP:ADDR
DUMP:PID
DUMP:PMEM
DUMP:REG
OP:UMEM
OP:UMEM;MCH

Output Message

DUMP-UID

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ID DUMP:UVAR
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Dumps the contents of one or more computer generic access package (GRASP) utility variables either as an immediate message or as an action associated with a breakpoint. Utility variables are used to store data temporarily.

This message can also be used to dump an address range in main memory (by specifying a single utility variable and offsets) but only if the message is part of the action list for a WHEN message.

If offsets are specified, the first offset is added to the value of the contents of the utility variable and the result is interpreted as a virtual address. The number of offsets specified defines the length of the chain of virtual addresses to be accessed in this way before accessing the desired range of dump locations. For example, a single offset with value 0 uses the virtual address found in the utility variable for the dump location.

NOTE: Offsets can only be used if the DUMP:UVAR message is used as an action associated with a breakpoint, since that defines a process address space for memory addressing.

2. FORMAT

DUMP:UVAR *a* [, **OFF** *b*][, {**L**|**NL**}*c*][**WORD**]{/|!}

3. EXPLANATION OF MESSAGE

- a* = Utility variable(s) (1-50) to be dumped. See User Guidelines for instructions on entering a list of variable numbers. A maximum of five utility variables may be listed.
- b* = A single offset or list of up to five offsets. Omission of the keyword implies no indirect addressing. Offsets are in bytes unless the **WORD** option is used.
- L** *c* = The length of the dump, assumed to be in bytes unless the **WORD** option is used. The maximum is 128 bytes or 32 words for memory dumps, 4 bytes or 1 word for utility variable dumps. The default is 1 unless a range is explicitly specified. The actual range of addresses to be dumped is rounded out to word address boundaries.
- NL** *c* = Used to indicate that the operation should use the locations beginning *c* lower than the calculated address and ending at the address. The locations are used in ascending order. Usage and limitations are the same as for the **L** option.
- WORD** = Indicates that all addresses, offsets, and lengths are to be interpreted as words including addresses derived in address chains. If this

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option is omitted they are assumed to be byte values.

4. SYSTEM RESPONSE

- ?I = General syntax error, or one of the following errors:
- EXTRA KEYWORD (OFF)
Indirection not allowed except as action of a WHEN.
 - INCONSISTENT DATA (UVAR LIST + OFF)
No indirection permitted with more than one utility variable listed.
 - INCONSISTENT KEYWORDS (NL-OFF)
Negative length not allowed without OFF.
 - INPUT ERROR (OFF COUNT)
Too many offsets listed.
 - INPUT ERROR (UVAR COUNT)
Too many utility variables listed.
 - RANGE ERROR (L OR NL)
Length specified too long or zero.
 - RANGE ERROR (UVAR)
Invalid utility variable number was specified.
- IP = In progress. The message has been added to the WHEN action list.
- PF = Printout follows. Followed by the DUMP-UVAR output message.
- RL = Retry later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages

DUMP:ADDR
DUMP:PID
DUMP:PMEM
DUMP:REG
DUMP:UID
OP:UMEM
OP:UMEM;MCH
WHEN:PID
WHEN:UID

Output Message

DUMP-UVAR

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

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Section 3

Input 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
ADD PAUTH	ADD:PAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ADD PCGRP	ADD:PCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ADD PROFL	ADD:PROFL	UNIX RTR R21.3, R21.11, R21.15 and later
ADD TAUTH	ADD:TAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ADD TCGRP	ADD:TCGRP	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	UNIX RTR R1.5, 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 and R6.4
ALW ERRCHK	ALW:ERRCHK-B	UNIX RTR R21.3, R21.11, R21.15 and later
ALW ERRINT	ALW:ERRINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW ERRSRC	ALW:ERRSRC	UNIX RTR R1.5, 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

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Message Name	Message ID	Generic
ALW HDWCHK	ALW:HDWCHK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW REX	ALW:REX-A	UNIX RTR R1.5 and R6.4
ALW REX	ALW:REX-B	UNIX RTR R21.3, R21.11, R21.15 and later
ALW SCSD	ALW:SCSD-A	UNIX RTR R1.5 only
ALW SCSD	ALW:SCSD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW SFTCHK	ALW:SFTCHK	UNIX RTR R1.5, 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
APPENDIX AUDIT	APP:AUD	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
APPLY OMDB	APPLY:OMDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD CUMEM	AUD:CUMEM-A	UNIX RTR R1.5, R6.4 and R21.3
AUD CUMEM	AUD:CUMEM-B	UNIX RTR R21.11, R21.15 and later
AUD CUSTAT	AUD:CUSTAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD ECD	AUD:ECD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD ECDOWN	AUD:ECDOWN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR	AUD:FMGR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD FSBLK	AUD:FSBLK-A	UNIX RTR R1.5 and R6.4

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Message Name	Message ID	Generic
AUD FSBLK	AUD:FSBLK-B	UNIX RTR R21.3, R21.11, R21.15 and later
AUD FSCMPT	AUD:FSCMPT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD FSLINK	AUD:FSLINK-A	UNIX RTR R1.5 and R6.4
AUD FSLINK	AUD:FSLINK-B	UNIX RTR R21.3, R21.11, R21.15 and later
AUD MMGR	AUD:MMGR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD MSGBUF	AUD:MSGBUF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD PMS	AUD:PMS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD PROAD	AUD:PROAD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CFR DUPLEXDISKS	CFR:DUPLEXDISKS	UNIX RTR R21.27 and later
CHG PAUTH	CHG:PAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CHG PROFL	CHG:PROFL	UNIX RTR R21.3, R21.11, R21.15 and later
CLR ACKDB	CLR:ACKDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 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-A	UNIX RTR R1.5 only
CLR FANALM	CLR:FANALM-B	UNIX RTR 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:MHD;MAEC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
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-A	UNIX RTR R1.5 and R6.4
CLR UTIL	CLR:UTIL-B	UNIX RTR R21.3, R21.11, R21.15 and later
CLR UTILFLAG	CLR:UTILFLAG-A	UNIX RTR R1.5 and R6.4
CLR UTILFLAG	CLR:UTILFLAG-B	UNIX RTR 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 and R21.3
CMPR MHD	CMPR:MHD-B	UNIX RTR R21.11 and R21.15
CMPR MHD	CMPR:MHD-C	UNIX RTR R21.17 and later
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
COPY DIFF MHD	COPY:DIFF;MHD-A	UNIX RTR R1.5, R6.4 and R21.3
COPY DIFF MHD	COPY:DIFF;MHD-B	UNIX RTR R21.11 and R21.15
COPY DIFF MHD	COPY:DIFF;MHD-C	UNIX RTR R21.17 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	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
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
DEL LOG	DEL:LOG-A	UNIX RTR R1.5 and R6.4
DEL LOG	DEL:LOG-B	UNIX RTR R21.3, R21.11, R21.15 and later
DEL PAUTH	DEL:PAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DEL PCGRP	DEL:PCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DEL PROFL	DEL:PROFL	UNIX RTR R21.3, R21.11, R21.15 and later
DEL TAUTH	DEL:TAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DEL TCGRP	DEL:TCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN CU	DGN:CU	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	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 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

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Message Name	Message ID	Generic
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	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN SCSDC	DGN:SCSDC	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
DUMP FILE DATA	DUMP:F;DATA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DUMP FILE FORMAT	DUMP:F;FORMAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, 21.15 and later
DUMP FILE PARTL	DUMP:F;PARTL-A	UNIX RTR R1.5, R6.4 and R21.3
DUMP FILE PARTL	DUMP:F;PARTL-B	UNIX RTR 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	DUMP:MHD;BLK-A	UNIX RTR R1.5 only
DUMP MHD	DUMP:MHD;BLK-B	UNIX RTR R6.4, 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 and later
DUMP MHD	DUMP:MHD;VTO	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
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, 21.11, 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 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
END WHEN	END:WHEN	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, R21.11, 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
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

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Message Name	Message ID	Generic
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, R21.15 and 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	UNIX RTR R21.3, R21.11, R21.15 and later
EXC UCL	EXC:UCL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN DTIME	IN:DTIME	UNIX RTR R1.5, R6.4, R21.3, R21.11, 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 FILESYS DIR	IN:F;DIR	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 REMOTE REPT	IN:REM;REPT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE START	IN:REM;START	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE STOP	IN:REM;STOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN STIME	IN:STIME	UNIX RTR R1.5 only
IN XFER	IN:XFER	UNIX RTR R21.11, R21.15 and later

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Message Name	Message ID	Generic
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 and R6.4
INH ERRCHK	INH:ERRCHK-B	UNIX RTR R21.3, R21.11, R21.15 and later
INH ERRINT	INH:ERRINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH ERRSRC	INH:ERRSRC	UNIX RTR R1.5, 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	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH REX	INH:REX-A	UNIX RTR R1.5 and R6.4
INH REX	INH:REX-B	UNIX RTR R21.3, R21.11, R21.15 and later
INH SCSD	INH:SCSD-A	UNIX RTR R1.5 only
INH SCSD	INH:SCSD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH SFTCHK	INH:SFTCHK	UNIX RTR R1.5, R6.4, R21.3, 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, R21.3, R21.11, R21.15 and later
INIT UC	INIT:UC-A	UNIX RTR R1.5 and R6.4
INIT UC	INIT:UC-B	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

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Message Name	Message ID	Generic
INIT UMEM INIT UMEM	INIT:UMEM-A INIT:UMEM-B	UNIX RTR R1.5 only 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, R21.3 and R21.11
LOAD DFC PUMP	LOAD:DFC;PUMP-B	UNIX RTR R21.15 and later
LOAD DFC RAM	LOAD:DFC;RAM	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
LOAD MHD DEFECT	LOAD:MHD-A	UNIX RTR R1.5 only
LOAD MHD DEFECT	LOAD:MHD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
LOAD MHD FIRMWARE	LOAD:MHD;FIRM	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
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, R21.3, R21.11, R21.15 and later
OP AUDERR	OP:AUDERR	UNIX RTR R1.5, R6.4, 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 R6.4 only
OP DFC INFO	OP:DFC;INFO-B	UNIX RTR R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
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
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	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP GEN	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	UNIX RTR R1.5, R6.4, 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, R21.3, R21.11, R21.15 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
OP OOS	OP:OOS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP PMCR	OP:PMCR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
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-A	UNIX RTR R1.5 only
OP SCSD	OP:SCSD-B	UNIX RTR 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 STATUS 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
OP UTIL	OP:UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP VERSION	OP:VERSION	UNIX RTR R21.11, R21.15 and later

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Message Name	Message ID	Generic
ORD SCSD ORD SCSD	ORD:SCSD-A ORD:SCSD-B	UNIX RTR R1.5 only UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
RCV DMTECD RC	RCV:DMTE;RC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTECD VFY	RCV:DMTE;VFY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTSG RC	RCV:DMTS;RC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTSG VFY	RCV:DMTS;VFY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU BROWSE	RCV:M;BROWSE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU COMPAREDB	RCV:M;CMPRDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU CREATEECD	RCV:M;CREATEECD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU CREATESG	RCV:M;CREATESG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU EVOL	RCV:M;EVOL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU FDIFF	RCV:M;FDIFF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU KEYCMP	RCV:M;KEYCMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU KEYCOMM	RCV:M;KEYCOMM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU KEYS	RCV:M;KEYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU LOADF3B	RCV:M;LOADF3B	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU NEWDB	RCV:M;NEWDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU PRINTDB	RCV:M;PRINTDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU PRINTFRM	RCV:M;PRINTFRM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU RCVECD	RCV:M;RCVECD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU RCVSG	RCV:M;RCVSG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
RCV MENU TRANSGEN	RCV:M;TRANSGEN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU TREEBLD	RCV:M;TREEBLD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU VFYDFLT	RCV:M;VFYDFLT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RFT ABORT	RFT:ABORT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RFT BEGINPOST	RFT:BEGINPOST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RFT FDUMP	RFT:FDUMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RFT PRINT	RFT:PRINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
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-A	UNIX RTR R1.5 only
RMV DFC	RMV:DFC-B	UNIX RTR 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 R1.5 only
RMV MHD	RMV:MHD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
RMV MT	RMV:MT	UNIX RTR R1.5, R6.4, 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

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Message Name	Message ID	Generic
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	UNIX RTR R6.4, R21.3, R21.11, 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
RMV TTY	RMV:TTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV TTYC	RMV:TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RNM PSSWD	RNM:PSSWD	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, R21.11, R21.15 and later
RST DFC	RST:DFC-A	UNIX RTR R1.5 only
RST DFC	RST:DFC-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
RST DUI	RST:DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R1.15 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, R21.15 and later
RST IOP	RST:IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST MHD	RST:MHD-A	UNIX RTR R1.5 only
RST MHD	RST:MHD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
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	UNIX RTR R6.4, 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
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-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.27
SET CLK	SET:CLK-B	UNIX RTR R21.29 and later
SET IODRV	SET:IODRV-A	UNIX RTR R1.5 and R6.4
SET IODRV	SET:IODRV-B	UNIX RTR R21.3, R21.11, R21.15 and later
STOP AUD	STOP:AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP BKDISK	STOP:BKDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP CMPR MHD	STOP:CMPR;MHD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
STOP COPY DIFF	STOP:COPY;DIFF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP DCI	STOP:DCI	UNIX RTR R21.3, 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:E;ANY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP EXC USER	STOP:E;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
SW CU	SW:CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
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 ACKU	TST:ACKU	UNIX RTR R1.5 only
TST ALT	TST:ALT	UNIX RTR R1.5 only
TST SHL	TST:SHL	UNIX RTR R1.5 only
TST SPL	TST:SPL	UNIX RTR R1.5 only
UPD APPLY BYTER	UPD:APPLY;BYTER-A	UNIX RTR R1.5, R6.4 and R21.3
UPD APPLY BYTER	UPD:APPLY;BYTER-B	UNIX RTR R21.11, R21.15 and later
UPD APPLY FILER	UPD:APPLY;FILER-A	UNIX RTR R1.5, R6.4 and R21.3
UPD APPLY FILER	UPD:APPLY;FILER-B	UNIX RTR R21.11, R21.15 and later
UPD APPLY FUNCRC	UPD:APPLY;FUNCRC-A	UNIX RTR R1.5, R6.4 and R21.3
UPD APPLY FUNCRC	UPD:APPLY;FUNCRC-B	UNIX RTR R21.11, R21.15 and later
UPD APPLY UNIXCMD	UPD:APPLY;UNIX	UNIX RTR R21.11, R21.15 and later
UPD AUTO	UPD:AUTO	UNIX RTR R21.11, R21.15 and later
UPD AUTOCHK	UPD:AUTOCHK	UNIX RTR R21.11, R21.15 and later

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Message Name	Message ID	Generic
UPD AUTOPROFILE	UPD:AUTOPROFILE	UNIX RTR R21.11, R21.15 and later
UPD AUTOSCHED	UPD:AUTOSCHED	UNIX RTR R21.11, R21.15 and later
UPD BKOUT	UPD:BKOUT-A	UNIX RTR R1.5, R6.4 and R21.3
UPD BKOUT	UPD:BKOUT-B	UNIX RTR R21.11, R21.15 and later
UPD BLDBOOT	UPD:BLDBOOT-A	UNIX RTR R1.5, R6.4 and R21.3
UPD BLDBOOT	UPD:BLDBOOT-B	UNIX RTR R21.11, R21.15 and later
UPD BLOCK	UPD:BLOCK	UNIX RTR R21.11, R21.15 and later
UPD BOLO	UPD:BOLO	UNIX RTR R21.11, R21.15 and later
UPD CHG APPLY	UPD:CHG;APPLY	UNIX RTR R21.11, R21.15 and later
UPD CHG BKOUT	UPD:CHG;BKOUT	UNIX RTR R21.11, R21.15 and later
UPD CHG INST	UPD:CHG;INST	UNIX RTR R21.11, R21.15 and later
UPD CHG SKTM	UPD:CHG;SKTM	UNIX RTR R21.11, R21.15 and later
UPD CLR	UPD:CLR-A	UNIX RTR R1.5, R6.4 and R21.3
UPD CLR	UPD:CLR-B	UNIX RTR R21.11, R21.15 and later
UPD CLRBWM	UPD:CLRBWM	UNIX RTR R21.11, R21.15 and later
UPD CSCANS REPORT	UPD:CSCANS;REPT	UNIX RTR R21.11, R21.15 and later
UPD CSCANS STOP	UPD:CSCANS;STOP	UNIX RTR 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 DISPLYUPD	UPD:DISPLYUPD	UNIX RTR R21.11, R21.15 and later
UPD EXALL	UPD:EXALL	UNIX RTR R21.11, R21.15 and later

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Message Name	Message ID	Generic
UPD EXNXT	UPD:EXNXT	UNIX RTR R21.11, R21.15 and later
UPD EXPAND	UPD:EXPAND	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, R21.15 and later
UPD GEN RESTORE	UPD:G;RESTR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GENP	UPD:GENP	UNIX RTR R21.11, R21.15 and later
UPD INITPW	UPD:INITPW	UNIX RTR R21.11, R21.15 and later
UPD NXTWNDW	UPD:NXTWNDW	UNIX RTR R21.11, R21.15 and later
UPD OFC	UPD:OFC	UNIX RTR 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 PRINT	UPD:PRINT	UNIX RTR R21.11, R21.15 and later
UPD PRINT BWMFILE	UPD:PRINT;BWM	UNIX RTR R21.11, R21.15 and later
UPD PRINT SKTM	UPD:PRINT;SKTM	UNIX RTR R21.11, R21.15 and later
UPD PRVWNDW	UPD:PRVWNDW	UNIX RTR R21.11, R21.15 and later
UPD PURGE	UPD:PURGE	UNIX RTR R1.5, R6.4 and R21.3
UPD RCVRY	UPD:RCVRY	UNIX RTR R21.11, R21.15 and later
UPD REBOOT	UPD:REBOOT	UNIX RTR R21.11, R21.15 and later
UPD RECLAIM	UPD:RECLAIM	UNIX RTR R1.5, R6.4 and R21.3

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Message Name	Message ID	Generic
UPD RECOVERY	UPD:RECOVERY	UNIX RTR R21.11, R21.15 and later
UPD REDUCE	UPD:REDUCE	UNIX RTR R21.11, R21.15 and later
UPD RESET	UPD:RESET-A	UNIX RTR R1.5, R6.4 and R21.3
UPD RESET	UPD:RESET-B	UNIX RTR R21.11, R21.15 and later
UPD START EASYBWM	UPD:START;EASY	UNIX RTR R21.11, R21.15 and later
UPD STOP EXC	UPD:STOP;EXC	UNIX RTR R21.11, R21.15 and later
UPD STOP SOAK	UPD:STOP;SOAK	UNIX RTR R21.11, R21.15 and later
UPD UPDCON	UPD:UPDCON	UNIX RTR R21.11, R21.15 and later
UPD UPDDSPY	UPD:UPDDSPY	UNIX RTR R21.11, R21.15 and later
UPD UPNAME	UPD:UPNAME	UNIX RTR R21.11, R21.15 and later
UPD VERSION	UPD:VERSION	UNIX RTR R21.11, R21.15 and later
UPD VFY	UPD:VFY-A	UNIX RTR R1.5, R6.4 and R21.3
UPD VFY	UPD:VFY-B	UNIX RTR R21.11, R21.15 and later
UPD VFYBWM	UPD:VFYBWM	UNIX RTR R21.11, R21.15 and later
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, R21.3, R21.11, R21.15 and later
VFY PAUTH	VFY:PAUTH-A	UNIX RTR R1.5 and R6.4
VFY PAUTH	VFY:PAUTH-B	UNIX RTR 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

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Message Name	Message ID	Generic
VFY TAPE	VFY:TAPE-B	UNIX RTR R21.15 and later
VFY TAUTH	VFY:TAUTH	UNIX RTR R1.5, R6.4, R21.3, R2.11, 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 END:WHEN
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Marks the end of a list of computer generic access package (GRASP) messages to be performed when a specified breakpoint condition exists.

2. FORMAT

END:WHEN!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

?A = Only allowed in a WHEN action list.
?I = General syntax error or:
— PUNCTUATION ERROR
Exclamation point was expected.
PF = Printout follows. Followed by a WHEN output message.
RL = Retry later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages
OP:UMEM
OP:UMEM;MCH
WHEN:PID
WHEN:UID

Output Messages
WHEN-PID
WHEN-UID

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ID EX:CU
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests that a computer control unit (CU) be exercised in an interactive diagnostic mode.

Format 1 starts the interactive diagnostic mode.

Format 2 pauses or suspends the diagnostic execution at a specified statement number within a diagnostic phase.

Format 3 puts the diagnostic in a loop between the specified statement numbers.

Format 4 steps the diagnostic and suspends at the specified statement number. It is similar to Format 2, but also prints the command buffer contents being passed to the diagnostic driver.

Format 5 can only be used with main store diagnostic phase 95 or 96. It executes the main store diagnostic phase with user-supplied address range, refresh rate, number of failures to be collected, data pattern (phase 95), words per array to copy (phase 96), and refresh parity check time.

Format 6 stops the looping started by EX: LOOP.

NOTE: To use Formats 2 through 6, first execute Format 1.

2. FORMAT

- [1] **EX:CU** *a*,CH=*b*[:[RAW][,UCL]]:PH *c*[:,TLP][,{DFC|IOP} *d*]!
- [2] **EX:PAUSE;CU** *a*,CH=*b*:ST *e*!
- [3] **EX:LOOP;CU** *a*,CH=*b*:ST *f-g*!
- [4] **EX:STEP;CU** *a*:ST *e*!
- [5] **EX:LDPARM;CU** *a*,MASC *a*[:[SA *h*][,EA *i*][,REF *j*][,FNUM *k*][,PAT *l*][,WPA *m*][,TIME *n*]!
- [6] **EX:STOP;CU** *a,b*!

3. EXPLANATION OF MESSAGE

- a* = Member number (0 or 1).
- b* = Unit type and member number of the subunit beneath the CU. Valid subunit names and member numbers are listed in the Member

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Numbers Appendix, MEM-NUM-APPD, Table D.

- RAW** = Print all the diagnostic failures. Default is to print the first five failures.
- UCL** = Execute unconditionally.
- NOTE:** This option does not override forced early terminations.
- c* = Execute the specified phase
- NOTE:** The phase will not be executed until subsequent commands from Formats 2 through 5 are input.
- TLP** = Execute the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.
- NOTE:** It is not recommended that the **TLP** and **UCL** parameters be specified together, as it may produce an improper TLP listing.
- d* = Member number of the DFC (0-7), IOP (0-15) or ring peripheral controller node (RPCN) to be used as a helper unit. When a helper unit is not required, the specified helper unit is ignored. When a helper unit is required but the specified helper unit is inappropriate or not available, the helper unit dependent tests are skipped.
- e* = Statement number that is the target of the action. This statement is not executed.
- f* = Lower statement boundary of an exercise loop.
- g* = Upper statement boundary of an exercise loop.
- h* = Starting address for the MAS exercise, in hexadecimal notation. Default is 0.
- i* = End address for the MAS exercise, in hexadecimal notation. Default is all equipped memory in controller under test.
- j* = Memory refresh rate in decimal.
For **3B20D**, default is 4 ms. Possible values are 2, 4, 6, 8, 10, 12, 14, 16, 32, 36, 40, 44, 48, 52, 56, or 60 ms.
For **3B21D** default is 16 ms. Possible values are 16, 18, 20, 22, 24, 26, 28, 30 ms.
- k* = Number of failures for which data is to be collected. Default is 100.
- l* = 32-bit data pattern used in the MAS exercise (phase 95), in hexadecimal notation. Default is 0xffffffff.
- m* = Number of words per memory array to copy from the online CU, in hexadecimal notation (phase 96). Default is all words in each array.

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- n* = Duration of time, in seconds, for which refresh data parity checks should be run to scan for errors in the MASC under test (phase 96). Default = 34 seconds for TN14 MASAs, 68 seconds for TN28, TN56, TN2012 MASAs, 136 seconds for TN56 MASAs with either an extended main memory or very large main memory features, 136 seconds for TN2012 MASAs with an extended main memory feature, or 272 seconds for TN2012 MASAs with a very large main memory feature.
This parameter is not used for **3B21D**.

4. SYSTEM RESPONSE

- PF = Printout Follows. Followed by the EX CU output message.
- RL = Retry Later. The system is in an overload condition.
- ?I = General syntax error, followed by the parameter position and one of the following reasons:
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - MISSING DATA
Data required for a keyword in the stated parameter block was not found.
 - MISSING KEYWORD
A required keyword is missing from the input.
- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - MISSING DATA
Data required for the statement keyword was not found on the input line.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - RANGE ERROR
Not a valid value for the statement parameter.
- ?E = Input error of undetermined type.

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5. REFERENCES

Input Appendix
MEM-NUM-APPD

Input Messages
DGN:CU
EX:LOOP
STOP:DMQ
STP:DMQ

Output Messages
ANALY TLPFILE
DGN CU
EX CU

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ID EX:DCI
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Exercises a dual serial channel/computer interconnect (DCI) in an interactive diagnostic mode.

Format 1 starts the interactive diagnostic mode.

Format 2 pauses or suspends the diagnostic execution at a specified statement number within a diagnostic phase.

Format 3 puts the diagnostic in a loop between the specified statement numbers.

Format 4 steps the diagnostic and suspends at the specified statement number. It is similar to Format 2.

Format 5 stops the looping started by EX: LOOP.

NOTE: To use Formats 2 through 5, first execute Format 1.

2. FORMAT

- [1] **EX:DCI** *a* [:**RAW**] [, **UCL**]: **PH** *b* [, **TLP**] !
- [2] **EX:PAUSE; DCI** *a*: **ST** *d* !
- [3] **EX:LOOP; DCI** *a*: **ST** *e-f* !
- [4] **EX:STEP; DCI** *a*: **ST** *d* !
- [5] **EX:STOP; DCI** *a* !

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

RAW = Prints all the diagnostic failures. Default is the first five failures.

UCL = Executes unconditionally.

NOTE: This option does not override forced early terminations.

PH = Executes the specified phase.

b = Number of the phase to be executed.

NOTE: The phase will not be executed until subsequent messages from Formats 2 through 5 Formats 3 through 6 are input.

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TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: It is not recommended that the **TLP** and **UCL** parameters be specified together, as it may produce an improper TLP listing.

d = Statement number that is the target of the action. This statement is not executed.

e = Lower statement boundary of an exercise loop.

f = Upper statement boundary of an exercise loop.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the EX-DCI output message.

RL = Retry Later. The system is in an overload condition.

?I = General syntax error, followed by the parameter position and one of the following reasons:

- **EXTRA KEYWORD**

- Duplicate or extraneous keywords were input.

- **INVALID KEYWORD**

- The keyword in the stated parameter position is not a valid keyword.

- **MISSING KEYWORD**

- A required keyword is missing from the input.

?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:

- **EXTRA KEYWORD**

- Duplicate or extraneous keywords were input.

- **INVALID KEYWORD**

- The keyword in the stated parameter position is not a valid keyword.

- **MISSING DATA**

- Data required for the statement keyword was not found on the input line.

- **MISSING KEYWORD**

- A required keyword is missing from the input.

- **RANGE ERROR**

- Not a valid value for the statement parameter.

?E = Input error of undetermined type.

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5. REFERENCES

Input Messages

DGN:DCI

EX:LOOP

STOP:DMQ

STP:DMQ

Output Messages

ANALY-TLPFILE

DGN-DCI

EX-DCI

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ID EX:DFC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Exercises a disk file controller (DFC) in an interactive diagnostic mode.

Format 1 starts the interactive diagnostic mode.

Format 2 pauses or suspends the diagnostic execution at a specified statement number within a diagnostic phase.

Format 3 puts the diagnostic in a loop between the specified statement numbers.

Format 4 steps the diagnostic and suspends at the specified statement number. It is similar to Format 2.

Format 5 stops the looping started by EX: LOOP.

NOTE: To use Formats 2 through 5, first execute Format 1.

2. FORMAT

- [1] **EX:DFC** *a* [:**RAW**] [, **UCL**]: **PH** *b* [, **TLP**] [, **CU** *c*]!
- [2] **EX:PAUSE; DFC** *a*: **ST** *d* !
- [3] **EX:LOOP; DFC** *a*: **ST** *e-f* !
- [4] **EX:STEP; DFC** *a*: **ST** *d* !
- [5] **EX:STOP;DFC** *a* !

3. EXPLANATION OF MESSAGE

a = Member number (0-7).

RAW = Prints all the diagnostic failures. Default is to print the first five failures.

UCL = Executes unconditionally.

NOTE: This option does not override forced early terminations.

b = Executes the specified phase.

NOTE: The phase will not be executed until subsequent messages from Formats 2 through 5 are input.

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TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: It is not recommended that the **TLP** and **UCL** parameters be specified together as it may produce an improper TLP listing.

c = (0 or 1) Member number of the CU helper unit. When a helper unit is not required, the specified helper unit is not used. When a helper unit is required but the specified helper unit is inappropriate or unavailable, the helper unit dependent tests are skipped. The off-line CU is required as a helper unit when demand phase 15 is executed.

NOTE: The helper CU must be out-of-service (OOS) and must be diagnosed as all tests pass (ATP) before it is used as a helper unit.

d = Statement number that is target of the action. This statement is not executed.

e = Lower statement boundary of an exercise loop.

f = Upper statement boundary of an exercise loop.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the EX-DFC output message.

RL = Retry Later. The system is in an overload condition.

?I = General syntax error, followed by the parameter position and one of the following reasons:

- EXTRA KEYWORD

- Duplicate or extraneous keywords were input.

- INVALID KEYWORD

- The keyword in the stated parameter position is not a valid keyword.

- MISSING KEYWORD

- A required keyword is missing from the input.

?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:

- EXTRA KEYWORD

- Duplicate or extraneous keywords were input.

- INVALID KEYWORD

- The keyword in the stated parameter position is not a valid keyword.

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- MISSING DATA
Data required for the statement keyword was not found on the input line.
- MISSING KEYWORD
A required keyword is missing from the input.
- RANGE ERROR
Not a valid value for the statement parameter.

?E = Input error of undetermined type.

5. REFERENCES

Input Messages

DGN:DFC
EX:LOOP
STOP:DMQ
STP:DMQ

Output Messages

ANALY-TLPFILE
DGN-DFC
EX-DFC

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ID EX:DUIC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Exercises a direct user interface controller (DUIC) in an interactive diagnostic mode.

Format 1 starts the interactive diagnostic mode.

Format 2 pauses or suspends the diagnostic execution at a specified statement number within a diagnostic phase.

Format 3 puts the diagnostic in a loop between the specified statement numbers.

Format 4 steps the diagnostic and suspends at the specified statement number. It is similar to Format 2.

Format 5 stops the looping started by EX: LOOP.

NOTE: To use Formats 2 through 5, first execute Format 1.

2. FORMAT

- [1] **EX:DUIC** *a* [:**RAW**] [, **UCL**]: **PH** *b* [, **TLP**] [, **CONT**]!
- [2] **EX:PAUSE; DUIC** *a*: **ST** *c*!
- [3] **EX:LOOP; DUIC** *a*: **ST** *d-e*!
- [4] **EX:STEP; DUIC** *a*: **ST** *c*!
- [5] **EX:STOP; DUIC** *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

RAW = Prints all the diagnostic failures. Default is the first five failures.

UCL = Executes unconditionally.

NOTE: This option does not override forced early terminations.

b = Number of the phase to be executed.

NOTE: The phase will not be executed until subsequent messages from Formats 2 through 5 are input.

TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty

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equipment.

NOTE: It is not recommended that the **TLP** and **UCL** parameters be specified together, as it may produce an improper TLP listing.

- c* = Statement number that is the target of the action. This statement is not executed.
- d* = Lower statement boundary of an exercise loop.
- e* = Upper statement boundary of an exercise loop.

4. SYSTEM RESPONSE

- PF = Printout Follows. Followed by the EX-DUIC output message.
- RL = Retry Later. The system is in an overload condition.
- ?I = General syntax error, followed by the parameter position and one of the following reasons:
 - EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - MISSING KEYWORD
A required keyword is missing from the input.
- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:
 - EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - MISSING DATA
Data required for the statement keyword was not found on the input line.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - RANGE ERROR
Not a valid value for the statement parameter.
- ?E = Input error of undetermined type.

5. REFERENCES

Input Messages
DGN:DUIC
EX:LOOP
STOP:DMQ
STP:DMQ

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Output Messages
ANALY-TLPFILE
DGN-DUIC
EX-DUIC

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ID EX:HSDC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Exercises a high-speed synchronous datalink controller (HSDC) in an interactive diagnostic mode.

Format 1 starts the interactive diagnostic mode.

Format 2 pauses or suspends the diagnostic execution at a specified statement number within a diagnostic phase.

Format 3 puts the diagnostic in a loop between the specified statement numbers.

Format 4 steps the diagnostic and suspends at the specified statement number. It is similar to Format 2.

Format 5 stops the looping started by EX: LOOP.

NOTE: To use Formats 2 through 5, first execute Format 1.

2. FORMAT

[1] **EX:HSDC** *a* [:**RAW**] [, **UCL**]: **PH** *b* [, **TLP**]!

[2] **EX:PAUSE; HSDC** *a*: **ST** *c*!

[3] **EX:LOOP; HSDC** *a*: **ST** *d-e*!

[4] **EX:STEP; HSDC** *a*: **ST** *c*!

[5] **EX:STOP; HSDC** *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

RAW = Prints all the diagnostic failures. Default is the first five failures.

UCL = Executes unconditionally.

NOTE: This option does not override forced early terminations.

PH = Executes the specified phase.

b = Number of the phase to be executed.

NOTE: The phase will not be executed until subsequent messages from Formats 2 through 5 are input.

TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty

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equipment.

NOTE: It is not recommended that the **TLP** and **UCL** parameters be specified together, as it may produce an improper TLP listing.

- c* = Statement number that is the target of the action. This statement is not executed.
- d* = Lower statement boundary of an exercise loop.
- e* = Upper statement boundary of an exercise loop.

4. SYSTEM RESPONSE

- PF = Printout Follows. Followed by the EX-HSDC output message.
- RL = Retry Later. The system is in an overload condition.
- ?I = General syntax error, followed by the parameter position and one of the following reasons:
 - EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - MISSING KEYWORD
A required keyword is missing from the input.
- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:
 - EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - MISSING DATA
Data required for the statement keyword was not found on the input line.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - RANGE ERROR
Not a valid value for the statement parameter.
- ?E = Input error of undetermined type.

5. REFERENCES

Input Messages
DGN:HSDC
EX:LOOP
STOP:DMQ
STP:DMQ

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Output Messages
ANALY-TLPFILE
DGN-HSDC
EX-HSDC

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ID EX:IOP
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Exercises an input/output processor (IOP) in an interactive diagnostic mode.

Format 1 starts the interactive diagnostic mode.

Format 2 pauses or suspends the diagnostic execution at a specified statement number within a diagnostic phase.

Format 3 puts the diagnostic in a loop between the specified statement numbers.

Format 4 steps the diagnostic and suspends at the specified statement number. It is similar to Format 2.

Format 5 stops the looping started by EX: LOOP.

NOTE: To use Formats 2 through 5, first execute Format 1.

2. FORMAT

- [1] **EX: IOP** *a* [:**RAW**] [, **UCL**]: **PH** *b* [, **TLP**] [, **CU** *c*]!
- [2] **EX: PAUSE; IOP** *a*: **ST** *d* !
- [3] **EX: LOOP; IOP** *a*: **ST** *e-f* !
- [4] **EX: STEP; IOP** *a*: **ST** *d* !
- [5] **EX: STOP; IOP** *a* !

3. EXPLANATION OF MESSAGE

a = Member number (0-15). Number (0 or 1).

RAW = Prints all the diagnostic failures. Default is the first five failures.

UCL = Executes unconditionally.

NOTE: This option does not override forced early terminations.

PH = Executes the specified phase.

b = Number of the phase to be executed.

NOTE: The phase will not be executed until subsequent messages from Formats 2 through 5 Formats 3 through 6 are input.

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TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: It is not recommended that the **TLP** and **UCL** parameters be specified together, as it may produce an improper TLP listing.

c = Member number of the CU helper unit (0 or 1). When a helper unit is not required, the specified helper unit is not used. When a helper unit is required but the specified unit is inappropriate or unavailable, the helper unit dependent tests are skipped. The off-line CU is required as a helper unit when demand phase 15 is executed.

NOTE: The helper CU must be out-of-service (OOS) and must be diagnosed as all tests pass (ATP) before it is used as a helper unit.

d = Statement number that is the target of the action. This statement is not executed.

e = Lower statement boundary of an exercise loop.

f = Upper statement boundary of an exercise loop.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the EX-IOP output message.

RL = Retry Later. The system is in an overload condition.

?I = General syntax error, followed by the parameter position and one of the following reasons:

- EXTRA KEYWORD

- Duplicate or extraneous keywords were input.

- INVALID KEYWORD

- The keyword in the stated parameter position is not a valid keyword.

- MISSING KEYWORD

- A required keyword is missing from the input.

?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:

- EXTRA KEYWORD

- Duplicate or extraneous keywords were input.

- INVALID KEYWORD

- The keyword in the stated parameter position is not a valid keyword.

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- MISSING DATA
Data required for the statement keyword was not found on the input line.
- MISSING KEYWORD
A required keyword is missing from the input.
- RANGE ERROR
Not a valid value for the statement parameter.

?E = Input error of undetermined type.

5. REFERENCES

Input Messages

DGN: IOP
EX: LOOP
STOP: DMQ
STP: DMQ

Output Messages

ANALY-TLPFILE
DGN- IOP
EX- IOP

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ID EX:LDPARM
 GENERIC UNIX RTR R1.5, R6.4,
 R21.3, R21.11, R21.15 and
 later
 TYPE Input

1. PURPOSE

Inputs user-supplied parameters to main store phases 95 and 96.

NOTE: To use this input command, first invoke the interactive diagnostics. For example:

EX:CU *a*,**MASC** *b*:*ph c*!

2. FORMAT

This format can only be used with main store diagnostic phase 95 or 96. It executes the main store (MAS) diagnostic phase with user-supplied address range, refresh rate, number of failures to be collated, data pattern (phase 95), words per array to copy (phase 96), and refresh parity check time (phase 96).

EX:LDPARM;CU *a*,**MASC** *b*:[**SA** *h*][,**EA** *i*][,**REF** *j*][,**FNUM** *k*]
 [,**PAT** *l*][,**WPA** *m*][,**TIME** *n*]]!

3. EXPLANATION OF MESSAGE

- a* = Member number (0 or 1).
- b* = Member number of the main store controller (MASC) beneath the CU (0 or 1).
- c* = Executes the specified phase.
- h* = Starting address for the MAS exercise, in hexadecimal notation. Default is 0.
- i* = End address for the MAS exercise, in hexadecimal notation. Default is all equipped memory in controller under test.
- j* = Memory refresh rate used in the MAS exercise, in decimal. Default is 4 ms. Possible values are 2, 4, 6, 8, 10, 12, 14, 16, 32, 36, 40, 44, 48, 52, 56, or 60 ms. Memory devices are guaranteed to work at a refresh rate of 4 ms or less when the memory device case temperature is between 0°C and 85°C.
- k* = Number of failures for which data is to be collected. Default is 100.
- l* = 32-bit data pattern used in the MAS exercise (phase 95), in hexadecimal notation. Default is 0xffffffff.
- m* = Number of words per memory array to copy from the on-line CU, in hexadecimal notation (phase 96). Default is all words in each array.

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- n* = Duration of time, in seconds, for which refresh data parity checks should be run to scan for errors in the MASC under test (phase 96). Default is 34 seconds for TN14 MASAs, 68 seconds for TN28, TN56, TN2012 MASAs, 136 seconds for TN56 MASAs with either extended main memory or very large main memory features, 136 seconds for TN2012 MASAs with extended main memory feature, or 272 seconds for TN2012 MASAs with very large main memory feature.

4. SYSTEM RESPONSE

- PF = Printout Follows. Followed by the EX-LDPARM output message.
- RL = Retry Later. The system is in an overload condition.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - MISSING KEYWORD
A required keyword is missing from the input.
- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - MISSING DATA
Data required for the statement keyword was not found on the input line.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - RANGE ERROR
Not a valid value for the statement parameter.
- ?E = Input error of undetermined type.

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5. REFERENCES

Input Messages

DGN:CU

EX:CU

STOP:DMQ

STP:DMQ

Output Messages

ANALY-TLPFILE

DGN-CU

EX-CU

EX-LDPARM

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ID EX:LOOP
 GENERIC UNIX RTR R1.5, R6.4,
 R21.3, R21.11, R21.15 and
 later
 TYPE Input

1. PURPOSE

Performs a specified group of diagnostic tasks repeatedly.

NOTE: To use this input command, first invoke the interactive diagnostics. For example:

EX:*a*, [*b*];**ph c!**

2. FORMAT

This format puts the diagnostic in a loop between the specified statement numbers.

EX: **LOOP**; *a*, [*b*]; **ST** *f-g!*

3. EXPLANATION OF MESSAGE

- a* = Unit type and member number of the unit on which interactive diagnostics was started. Valid unit names and member numbers are listed in the Member Numbers Appendix, MEM-NUM-APPC, Table C.
- b* = Unit type and member number of the subunit, if any. Valid subunit names and member numbers are listed in the Member Numbers Appendix, MEM-NUM-APPD, Table D.
- c* = Executes the specified phase.
- f* = Statement lower boundary of an exercise loop.
- g* = Statement upper boundary of an exercise loop.

4. SYSTEM RESPONSE

- PF = Printout Follows. Followed by the EX-LOOP output message.
- RL = Retry Later. The system is in an overload condition.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
 - EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - MISSING KEYWORD
A required keyword is missing from the input.

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- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - MISSING DATA
Data required for the statement keyword was not found on the input line.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - RANGE ERROR
Not a valid value for the statement parameter.
- ?E = Input error of undetermined type.

5. REFERENCES

Input Appendix
MEM-NUM-APPC
MEM-NUM-APPD

Input Messages

EX:CU
EX:DCI
EX:DFC
EX:DUIC
EX:HSDC
EX:IOP
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE
EX:SCSDC
EX:SDLC
EX:STEP
EX:STOP
EX:TTYC
STOP:DMQ
STP:DMQ

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Output Messages
ANALY-TLPFILE
EX-LOOP

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ID EX:MHD
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Exercises a moving head disk (MHD) in an interactive diagnostic mode.

Format 1 starts the interactive diagnostic mode.

Format 2 pauses or suspends the diagnostic execution at a specified statement number within a diagnostic phase.

Format 3 puts the diagnostic in a loop between the specified statement numbers.

Format 4 steps the diagnostic and suspends at the specified statement number. It is similar to Format 2.

Format 5 stops the looping started by EX: LOOP.

NOTE: To use Formats 2 through 5, first execute Format 1.

2. FORMAT

- [1] **EX:MHD** *a*[:**RAW**][:**UCL**]:**PH** *b*[,**TLP**]!
- [2] **EX:PAUSE;MHD** *a*:**ST** *c*!
- [3] **EX:LOOP;MHD** *a*:**ST** *d-e*!
- [4] **EX:STEP;MHD** *a*:**ST** *c*!
- [5] **EX:STOP;MHD** *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

RAW = Print all the diagnostic failures. Default is the first five failures.

UCL = Execute unconditionally.

NOTE: This option does not override forced early terminations.

b = Execute the specified phase.

NOTE: The phase will not be executed until subsequent messages from Formats 2-5 are input.

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TLP = Execute the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: It is not recommended that the **TLP** and **UCL** parameters be specified together, as it may produce an improper TLP listing

c = Statement number that is the target of the action. This statement is not executed.

d = Lower statement boundary of an exercise loop.

e = Upper statement boundary of an exercise loop.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the EX-MHD output message.

RL = Retry Later. The system is in an overload condition.

?I = General syntax error, followed by the parameter position and one of the following reasons:

— **EXTRA KEYWORD**

Duplicate or extraneous keywords were input.

— **INVALID KEYWORD**

The keyword in the stated parameter position is not a valid keyword.

— **MISSING KEYWORD**

A required keyword is missing from the input.

?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:

— **EXTRA KEYWORD**

Duplicate or extraneous keywords were input.

— **INVALID KEYWORD**

The keyword in the stated parameter position is not a valid keyword.

— **MISSING DATA**

Data required for the statement keyword was not found on the input line.

— **MISSING KEYWORD**

A required keyword is missing from the input.

— **RANGE ERROR**

Not a valid value for the statement parameter.

?E = Input error of undetermined type.

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5. REFERENCES

Input Messages

DGN:MHD

EX:LOOP

STOP:DMQ

STP:DMQ

Output Messages

ANALY-TLPFILE

DGN-MHD

EX-MHD

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ID EX:MT
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Exercises a magnetic tape (MT) in an interactive diagnostic mode.

Format 1 starts the interactive diagnostic mode.

Format 2 pauses or suspends the diagnostic execution at a specified statement number within a diagnostic phase.

Format 3 puts the diagnostic in a loop between the specified statement numbers.

Format 4 steps the diagnostic and suspends at the specified statement number.

Format 5 stops the looping started by EX: LOOP.

NOTE: To use formats 2 through 5, first execute format 1.

2. FORMAT

This message has five formats.

- [1] **EX:MT** *a*[:**RAW**][:**UCL**]:**Ph** *b*[:**TLPI**]!
- [2] **EX:PAUSE;MT** *a*:**ST** *c*!
- [3] **EX:LOOP;MT** *a*:**ST** *d-e*!
- [4] **EX:STEP;MT** *a*:**ST** *c*!
- [5] **EX:STOP;MT** *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).
RAW = Print all diagnostic failures. Default is the first five failures.
UCL = Execute unconditionally.

NOTE: This option does not override forced early terminations.

b = Execute the specified phase.

NOTE: The phase will not be executed until subsequent messages from formats 2 through 5 or formats 3 through 5 are input.

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TLP = Execute the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: It is not recommended that the **TLP** and **UCL** parameters be specified together, because it may produce an improper **TLP** listing.

c = Statement number that is the target of the action. This statement is not executed.

d = Lower statement boundary of an exercise loop.

e = Upper statement boundary of an exercise loop.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by EX-MT output message.

RL = Retry Later. The system is in an overload condition.

?I = General syntax error, followed by the parameter position and one of the following reasons:

EXTRA KEYWORD — Duplicate or extraneous keywords were input.

INVALID KEYWORD — The keyword in the stated parameter position is not a valid keyword.

MISSING KEYWORD — A required keyword is missing from the input. Unit to diagnose must be specified.

?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:

EXTRA KEYWORD — Duplicate or extraneous keywords were input.

INVALID KEYWORD — The keyword in the stated parameter position is not a valid keyword.

MISSING DATA — Data required for a keyword in the stated parameter block was not found.

MISSING KEYWORD — A required keyword is missing from the input. Unit to diagnose must be specified.

RANGE ERROR — Input is out of the valid range.

?E = Input error of undetermined type.

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5. REFERENCES

Input Messages

DGN:MT
EX:LOOP

Output Messages

ANALY-TLPFILE
DGN-MT
EX-MT

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ID EX:MTC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Exercises a magnetic tape controller (MTC) in an interactive diagnostic mode. This message has five formats.

Format 1 starts the interactive diagnostic mode.

Format 2 pauses or suspends the diagnostic execution at a specified statement number within a diagnostic phase.

Format 3 puts the diagnostic in a loop between the specified statement numbers.

Format 4 steps the diagnostic and suspends at the specified statement number. It is similar to Format 2.

Format 5 stops the looping started by EX: LOOP.

NOTE: To use Formats 2 through 5, first execute Format 1.

2. FORMAT

- [1] **EX:MTC** *a* [:**RAW**] [, **UCL**]:**PH** *b* [, **TLP**][:, **MT** *c*]!
- [2] **EX:PAUSE;MTC** *a*:**ST** *d*!
- [3] **EX:LOOP;MTC** *a*:**ST** *e-f*!
- [4] **EX:STEP;MTC** *a*:**ST** *e*!
- [5] **EX:STOP;MTC** *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

NOTE: The phase will not be executed until subsequent messages from Formats 2 through 5 are input.

RAW = Print all the diagnostic failures. Default is to print the first five failures.

UCL = Execute unconditionally.

NOTE: This option does not override forced early terminations.

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b = Number of the phase to be executed.

NOTE: The phase will not be executed until subsequent messages from Formats 2 through 5 are input.

TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: It is not recommended that the **TLP** and **UCL** parameters be specified together, as it may produce an improper TLP listing.

c = Member number of the magnetic tape device that is to be used as a helper unit (0-255). When a helper unit is not required, the specified helper unit is ignored. When a helper unit is required but the specified helper unit is inappropriate or unavailable, the helper unit dependent tests are skipped.

d = Statement number that is the target of the action. This statement is not executed.

e = Lower statement boundary of an exercise loop.

f = Upper statement boundary of an exercise loop.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the EX-MTC output message.

RL = Retry Later. The system is in an overload condition.

?I = General syntax error, followed by the parameter position and one of the following reasons:

- EXTRA KEYWORD

- Duplicate or extraneous keywords were input.

- INVALID KEYWORD

- The keyword in the stated parameter position is not a valid keyword.

- MISSING KEYWORD

- A required keyword is missing from the input.

?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:

- EXTRA KEYWORD

- Duplicate or extraneous keywords were input.

- INVALID KEYWORD

- The keyword in the stated parameter position is not a valid keyword.

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- MISSING DATA
Data required for the statement keyword was not found on the input line.
- MISSING KEYWORD
A required keyword is missing from the input.
- RANGE ERROR
Not a valid value for the statement parameter.

?E = Input error of undetermined type.

5. REFERENCES

Input Messages

DGN:MTC
EX:LOOP
STOP:DMQ
STP:DMQ

Output Messages

ANALY-TLPFILE
DGN-MTC
EX-MTC

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ID EX:MTTYC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Exercises a maintenance teletypewriter controller (MTTYC) in an interactive diagnostic mode.

Format 1 starts the interactive diagnostic mode.

Format 2 pauses or suspends the diagnostic execution at a specified statement number within a diagnostic phase.

Format 3 puts the diagnostic in a loop between the specified statement numbers.

Format 4 steps the diagnostic and suspends at the specified statement number. It is similar to Format 2.

Format 5 stops the looping started by EX: LOOP.

NOTE: To use Formats 2 - 5, first execute Format 1.

2. FORMAT

- [1] **EX:MTTYC** *a*[:**RAW**][:**UCL**]:**PH** *b*[,**TLP**]!
- [2] **EX:PAUSE;MTTYC** *a*:**ST** *c*!
- [3] **EX:LOOP;MTTYC** *a*:**ST** *d-e*!
- [4] **EX:STEP;MTTYC** *a*:**ST** *c*!
- [5] **EX:STOP;MTTYC** *a*!

3. EXPLANATION OF MESSAGE

- a* = Member number (0-255).
- RAW** = Print all the diagnostic failures. The default is to print the first five failures.
- UCL** = Execute unconditionally.
- b* = Executes the specified phase.

NOTE: This option does not override forced early terminations.

NOTE: The phase will not be executed until subsequent messages from Formats 2-5 are input.

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TLP = Execute the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters should not be used together, as additional test results may adversely affect the TLP listing.

c = Statement number that is the target of the action. This statement is not executed.

d = Lower statement boundary of an exercise loop.

e = Upper statement boundary of an exercise loop.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the EX-MTTYC output message.

RL = Retry later. The system is in an overload condition.

?I = General syntax error, followed by the parameter position and one of the following reasons:

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

MISSING KEYWORD - A required keyword is missing from the input.

?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

MISSING KEYWORD - A required keyword is missing from the input.

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

MISSING DATA - Data required for the statement keyword was not found on the input line.

RANGE ERROR - Not a valid value for the statement parameter.

?E = Input error of undetermined type.

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5. REFERENCES

Input Messages

DGN:MTTYC

EX:LOOP

STOP:DMQ

Output Messages

ANALY-TLPFILE

DGN-MTTYC

EX-MTTYC

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ID EX:PAUSE
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Runs to a specified point in a diagnostic command, and then stops.

NOTE: To use this input command, first invoke the interactive diagnostics. For example:

EX:*a*, [*b*];**ph c!**

2. FORMAT

This format pauses or suspends the diagnostic execution at a specified statement number within a diagnostic phase.

EX: PAUSE;*a*, [*b*];**ST e!**

3. EXPLANATION OF MESSAGE

- a* = Unit type and member number of the unit on which interactive diagnostics was started. Valid unit names and member numbers are listed in the Member Numbers Appendix, MEM-NUM-APPC, Table C.
- b* = Unit type and member number of the subunit, if any. Valid subunit names and member numbers are listed in the Member Numbers Appendix, MEM-NUM-APPD, Table D.
- c* = Executes the specified phase.
- e* = Statement number that is the target of the action. This statement is not executed.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by the EX-PAUSE output message.
- RL = Retry later. The system is in an overload condition.
- ?I = General syntax error, followed by the parameter position and one of the following reasons:

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

MISSING KEYWORD - A required keyword is missing from the input.

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?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

MISSING KEYWORD - A required keyword is missing from the input.

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

MISSING DATA - Data required for the statement keyword was not found on the input line.

RANGE ERROR - Not a valid value for the statement parameter.

?E = Input error of undetermined type.

5. REFERENCES

Input Appendix

MEM-NUM-APPC

MEM-NUM-APPD

Input Messages

EX:CU

EX:DCI

EX:DFC

EX:DUIC

EX:HSDC

EX:IOP

EX:MHD

EX:MTC

EX:MTTYC

EX:SCSDC

EX:SDLC

EX:STEP

EX:TTYC

STOP:DMQ

STP:DMQ

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Output Messages
ANALY-TLPFILE
EX-PAUSE

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ID EX:SCSDC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Exercises a scanner and signal distributor controller (SCSDC) in an interactive diagnostic mode.

Format 1 starts the interactive diagnostic mode.

Format 2 pauses or suspends the diagnostic execution at a specified statement number within a diagnostic phase.

Format 3 puts the diagnostic in a loop between the specified statement numbers.

Format 4 steps the diagnostic and suspends at the specified statement number. This format is similar to Format 2.

Format 5 stops the looping started by EX: LOOP.

NOTE: To use Formats 2 - 5, first execute Format 1.

2. FORMAT

[1] **EX:SCSDC** *a*[:**RAW**][**UCL**]:**PH** *b*[,**TLP**]!

[2] **EX:PAUSE;SCSDC** *a*:**ST** *c*!

[3] **EX:LOOP;SCSDC** *a*:**ST** *d-e*!

[4] **EX:STEP;SCSDC** *a*:**ST** *c*!

[5] **EX:STOP;SCSDC** *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

RAW = Print all the diagnostic failures. Default is the first five failures.

UCL = Execute unconditionally.

NOTE: This option does not override forced early terminations.

b = Execute the specified phase.

NOTE: The phase will not be executed until subsequent messages from Formats 2-5 are input.

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TLP = Execute the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: It is not recommended that the TLP and UCL parameters be specified together, as it may produce an improper TLP listing.

c = Statement number that is the target of the action. This statement is not executed.

d = Statement lower boundary of an exercise loop.

e = Statement upper boundary of an exercise loop.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the EX-SCSDC output message.

RL = Retry later. The system is in an overload condition.

?I = General syntax error, followed by the parameter position and one of the following reasons:

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

MISSING KEYWORD - A required keyword is missing from the input.

?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

MISSING KEYWORD - A required keyword is missing from the input.

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

MISSING DATA - Data required for the statement keyword was not found on the input line.

RANGE ERROR - Not a valid value for the statement parameter.

?E = Input error of undetermined type.

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5. REFERENCES

Input Messages

DGN:SCSDC

EX:LOOP

STOP:DMQ

Output Messages

ANALY-TLPFILE

DGN-SCSDC

EX-SCSDC

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ID EX:SDLC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Exercises a synchronous data link controller (SDLC) in an interactive diagnostic mode.

Format 1 starts the interactive diagnostic mode.

Format 2 pauses or suspends the diagnostic execution at a specified statement number within a diagnostic phase.

Format 3 puts the diagnostic in a loop between the specified statement numbers. This format is similar to Format 2 but also prints the message buffer contents being passed to the diagnostic driver.

Format 4 steps the diagnostic and suspends at the specified statement number. This format is similar to Format 2.

Format 5 stops the looping started by EX: LOOP.

NOTE: To use formats 2 - 5, first execute format 1.

2. FORMAT

- [1] **EX:SDLC** *a* [; [**RAW**] [, **UCL**]] : **PH** *b* [, **TLP**] !
- [2] **EX:PAUSE;SDLC** *a* : **ST** *c* !
- [3] **EX:LOOP;SDLC** *a* : **ST** *d-e* !
- [4] **EX:STEP;SDLC** *a* : **ST** *c* !
- [5] **EX:STOP;SDLC** *a* !

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

RAW = Print all the diagnostic failures. Default is to print the first five failures.

UCL = Execute unconditionally.

NOTE: This option does not override forced early terminations.

b = Execute the specified phase.

NOTE: The phase will not be executed until subsequent messages from formats 2-5 are input.

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TLP = Execute the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: It is not recommended that the TLP and UCL parameters be specified together, as it may produce an improper TLP listing.

c = Statement number that is the target of the action. This statement is not executed.

d = Statement lower boundary of an exercise loop.

e = Statement upper boundary of an exercise loop.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the EX-SDLC output message.

RL = Retry Later. The system is in an overload condition.

?I = General syntax error, followed by the parameter position and one of the following reasons:

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

MISSING KEYWORD - A required keyword is missing from the input.

?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

MISSING KEYWORD - A required keyword is missing from the input.

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

MISSING DATA - Data required for the statement keyword was not found on the input line.

RANGE ERROR - Not a valid value for the statement parameter.

?E = Input error of undetermined type.

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5. REFERENCES

Input Messages

DGN:SDLC

EX:LOOP

STOP:DMQ

Output Messages

ANALY-TLPFILE

DGN-SDLC

EX-SDLC

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ID EX:STEP
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Steps through diagnostic commands.

NOTE: To use this input command, first invoke the interactive diagnostics. For example:

EX:*a[,b];ph c!*

2. FORMAT

This command steps the diagnostic and suspends at the specified statement number. It is similar to the EX:PAUSE input command, but in the case of a CU diagnostic, it will also print the command buffer contents being passed to the diagnostic driver.

EX:STEP;*a[,b]:ST e!*

3. EXPLANATION OF MESSAGE

- a* = Unit type and member number of the unit on which interactive diagnostics was started. Valid unit names and member numbers are listed in the Member Numbers Appendix, MEM-NUM-APPC, Table C.
- b* = Unit type and member number of the subunit, if any. Valid subunit names and member numbers are listed in the Member Numbers Appendix, MEM-NUM-APPD, Table D.
- c* = Executes the specified phase.
- e* = Statement number that is the target of the action. This statement is not executed.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by an EX-STEP output message.
- RL = Retry later. The system is in an overload condition.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
 - EXTRA KEYWORD — Duplicate or extraneous keywords were input.
 - INVALID KEYWORD — The keyword in the stated parameter position is not a valid keyword.
 - MISSING KEYWORD — A required keyword is missing from the input.

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?D = General syntax error in the data field, followed by the parameter position and one of the following reasons.

EXTRA KEYWORD — Duplicate or extraneous keywords were input.

INVALID KEYWORD — The keyword in the stated parameter position is not a valid keyword.

MISSING DATA — Data required for the statement keyword was not found on the input line.

MISSING KEYWORD — A required keyword is missing from the input.

RANGE ERROR — Not a valid value for the statement parameter.

?E = Input error of undetermined type.

5. REFERENCES

Appendix

MEM-NUM-APPC

MEM-NUM-APPD

Input Messages

EX:CU

EX:DCI

EX:DFC

EX:DUIC

EX:HSDC

EX:IOP

EX:MHD

EX:MTC

EX:MTTYC

EX:PAUSE

EX:SCSDC

EX:SDLC

EX:TTYC

STOP:DMQ

STP:DMQ

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
ANALY-TLPFILE
EX-STEP

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID EX:STOP
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Exits from the interactive diagnostics mode. This input message only stops the EX:LOOP command.

NOTE: To use this input command, first invoke the interactive diagnostics and the EX:LOOP command. For example:

EX: *a[, b];ph c!*
EX:LOOP; *a[, b]:st f-g!*

2. FORMAT

This command stops the looping started by EX:LOOP.

EX:STOP; *a[, b]!*

3. EXPLANATION OF MESSAGE

- a* = Unit type and member number of the unit on which interactive diagnostics was started. Valid unit names and member numbers are listed in the Member Numbers Appendix, MEM-NUM-APPC, Table C.
- b* = Unit type and member number of the subunit, if any. Valid subunit names and member numbers are listed in the Member Numbers Appendix, MEM-NUM-APPD, Table D.
- c* = Executes the specified phase.
- f* = Statement lower boundary of an exercise loop.
- g* = Statement upper boundary of an exercise loop.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by an EX-STEP output message.
- RL = Retry later. The system is in an overload condition.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
 - EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

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- MISSING KEYWORD
A required keyword is missing from the input.
- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons.
 - EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - MISSING DATA
Data required for the statement keyword was not found on the input line.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - RANGE ERROR
Not a valid value for the statement parameter.
- ?E = Input error of undetermined type.

5. REFERENCES

Input Appendix
MEM-NUM-APPC
MEM-NUM-APPD

Input Messages

EX:CU
EX:DCI
EX:DFC
EX:DUIC
EX:HSDC
EX:IOP
EX:LOOP
EX:MHD
EX:MTC
EX:MTTYC
EX:SCSDC
EX:SDLC
EX:TTYC
STOP:DMQ
STP:DMQ

Output Messages
ANALY-TLPFILE
EX-STEP

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System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID EX:TTYC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Exercises a teletypewriter controller (TTYC).

Format 1 starts the interactive diagnostic mode.

Format 2 pauses or suspends the diagnostic execution at a specified statement number within a diagnostic phase.

Format 3 puts the diagnostic in a loop between the specified statement numbers.

Format 4 steps the diagnostic and suspends at the specified statement number. It is similar to Format 2.

Format 5 stops the looping started by EX: LOOP.

NOTE: To use Formats 2 - 5, first execute Format 1.

2. FORMAT

[1] **EX: TTYC** *a*[:**RAW**][:**UCL**]:**PH** *b*[:**TLP**]!

[2] **EX: PAUSE; TTYC** *a*:**ST** *c*!

[3] **EX: LOOP; TTYC** *a*:**ST** *d-e*!

[4] **EX: STEP; TTYC** *a*:**ST** *c*!

[5] **EX: STOP; TTYC** *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

RAW = Print all the diagnostic failures. Default is to print the first five failures.

UCL = Execute unconditionally.

NOTE: This option does not override forced early terminations.

b = Execute the specified phase.

NOTE: The phase will not be executed until subsequent messages from Formats 2-5 are input.

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TLP = Execute the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: It is not recommended that the TLP and UCL parameters be specified together, as it may produce an improper TLP listing.

c = Statement number that is the target of the action. This statement is not executed.

d = Lower statement boundary of an exercise loop.

e = Upper statement boundary of an exercise loop.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the EX-TTYC output message.

RL = Retry later. The system is in an overload condition.

?I = General syntax error, followed by the parameter position and one of the following reasons:

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

MISSING KEYWORD - A required keyword is missing from the input.

?D = General syntax error in the data field, followed by the parameter position and one of the following reasons:

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

MISSING KEYWORD - A required keyword is missing from the input.

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

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MISSING DATA - Data required for the statement keyword was not found on the input line.

RANGE ERROR - Not a valid value for the statement parameter.

?E = Input error of undetermined type.

5. REFERENCES

Input Messages

DGN:TTYC

EX:LOOP

STOP:DMQ

Output Messages

ANALY-TLPFILE

DGN-TTYC

EX-TTYC

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID EXC:E;PROC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Executes a task as either a kernel or supervisor process. Although this command can execute user processes, EXC:ENVIR:UPROC.

****CAUTION****

Incorrect use of this message can cause unpredictable system damage or degradation. It should not be used without expert technical assistance unless it is part of a prescribed procedure.

2. FORMAT

EXC:ENVIR:PROC, FN "a"!

3. EXPLANATION OF MESSAGE

a = Pathname of the file to be executed. See User Guidelines for a description of pathname.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the EXC-ENVIR,PROC output message.

5. REFERENCES

Input Messages
EXC:E;UPROC
OP:ST;PROC

Output Messages
EXC-E, PROC
REPT-PMGR, ERR

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

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID EXC:E;UPROC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Executes a task as a user process.

****CAUTION****

Incorrect use of this message can cause unpredictable system damage or degradation. It should not be used without expert technical assistance unless it is part of a prescribed procedure.

2. FORMAT

EXC:ENVIR:UPROC, FN "a"[, ARGS b][, BKG][, OPL c]!

3. EXPLANATION OF MESSAGE

- a* = Full pathname of the file to be executed. See the User Guidelines for a description of pathnames.
- b* = A single argument or a list of up to six arguments for the user process. See the User Guidelines for instructions on entering a list of arguments. Any argument containing lowercase letters or special characters must be enclosed in quotation marks.
- BKG** = Run the process in the background, freeing the terminal for further input messages. The default is foreground execution.
- c* = Number of segments to be output; specified in decimal. The default is 10 segments; maximum is 999. Each segment has a maximum size of 1000 bytes or 20 lines.

4. SYSTEM RESPONSE

- PF = Printout Follows. Followed by the EXC-ENVIR,UPROC output message.

5. REFERENCES

Input Messages
EXC:E;PROC
OP:ST;PROC

Output Message
EXC-E, UPROC

SEE PROPRIETARY NOTICE ON COVER PAGE

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

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID EXC:OFLBOOT
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Initiates the off-line boot procedure. This may be used to verify the integrity of boot files and data, or as the prelude for the side switch.

There are some restrictions the user must follow for this input message to execute successfully:

- The primary or secondary disk must be selected manually.
- Both Input / Output Processors (IOPs) 0 and 1 cannot be selected for the off-line side.
- There should be no RCV activities running.
- There should be no diagnostic activities running.
- The MTTY and ROP port selector switches must be in the AUTO position and the portswitch controller must be powered on.

****CAUTION****

Incorrect use of this command may interrupt operations of the system, or degrade its performance or availability.

Off-line boot requires a logical split of the system during which one CU and all its subunits will not be available.

Note that the boot signal generated in the off-line side will result in the yellow CRITICAL alarm indicator being lit. This is the expected behavior of the indicator in all bootstraps (including offline boot). The indicator will be cleared automatically within 30 seconds.

2. FORMAT

EXC:OFLBOOT: [, TTY *a*][, APARM *b*][, INITLVL *c*][, IOP_x [MAX]]
[, HDWCHK][, SFTCHK][, ERRINT][, BROOT][, MINCONFIG]
[, UCL *d*][, MONITOR][, RETROFIT][, OOS][, TRACE]!

3. EXPLANATION OF MESSAGE

a = The TTY *a* option is used as a pseudo Receive-Only Printer (ROP) on the off-line side. All of the off-line side output directed to the ROP is sent to this TTY. The valid range is 0 to 254.

If the selected TTY is a UNIX system TTY, the output sent to it may be unformatted until someone logs in.

The default is no TTY; the off-line ROP output will not be sent to any

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output device.

CAUTION:

By selecting the Teletypewriter (TTY) option, the Input/Output Processor (IOP) associated with it is implicitly assigned to the off-line side.

- b* = The APARM *b* option is used as an application parameter for the off-line side. The range is a single alphanumeric character. This is equivalent to the function of poke 42 on the EAI page during normal boot.

The default is no APARM option set for off-line side.

- c* = The INITLVL *c* option is used as the UNIX RTR operating system bootstrap initialization level for the off-line side.

- 2** — The initial CU system configuration must be **ACT** or **STBY**. The OOS option will not override this requirement.

- 3** — Boot and load new ECD.

- 4** — (default) Boot and load new ECD and clear Protected Application Segment (PAS).

CAUTION:

These levels apply to RTR initialization. Different applications may or may not support all of them.

- IOP_x** = The IOP will be removed from service in the on-line side and remain on the original off-line side until OFLBOOT is stopped. Side switching does not affect this assignment. The range (*x*) can be 0 through 7.

If MAX is specified, all of the devices under this IOP will be equipped and made available to the off-line side except the ROP, Maintenance Teletypewriter (MTTY), and Switching Control Center (SCC). The ROP, MTTY, and SCC will be unequipped on the off-line side.

CAUTION:

Even with the SCC unequipped, it may perform a link switch. In this case, all EAI capabilities are functional.

If MAX is not specified, only peripheral controllers under this IOP will be equipped. Peripheral units under this IOP will not be equipped.

If the default option and TTY *a* option are selected, only TTY *a* will be equipped under this IOP in addition to the peripheral controllers.

If oflboot is a prelude to the software release transition procedure, *x* has to be either 0 or 1.

The default is IOP_x without MAX.

- HDWCHK** = Hardware checks will be inhibited for the off-line side. The default is *allowed*.

- SFTCHK** = Software checks will be inhibited for the off-line side. The default is

SEE PROPRIETARY NOTICE ON COVER PAGE

allowed.

ERRINT = Error interrupts will be inhibited for the off-line side. The default is allowed.

BROOT = Backup partitions will be used for the off-line side.
The default is the primary partitions.

CAUTION:

If a side switch is done and then the oflboot procedure stopped, the system will be running on the backup partitions. A boot will be needed afterward to return to the primary (ROOT) partition.

MINCONFIG = Minimum configuration database will be used for the off-line side. Any subsequent side switch will not be allowed.
The default is the full configuration database.

d = By selecting the UCL option some application prechecks will be overridden. The default enforces all prechecks.

CAUTION:

Application initiated aborts will be ignored. Because the UCL option inhibits system recovery actions, it should be used only in a software release transition procedure under technical guidance. Misuse can cause call processing downtime.

NOTE:

Using the UCL option requires a password (*d*); to obtain it, seek technical assistance. The value *d* will change every time the UCL option is entered; thus, using the UCL option always requires contacting technical assistance.

MONITOR = All off-line Processor Recovery Messages (PRMs) will be directed to the on-line ROP.

The default case will have only off-line PRMs up to Step 4 (KBOOT) directed to the on-line ROP.

RETROFIT = Recovery strategy will be modified to accommodate the software release transition.

The default is normal recovery strategy.

CAUTION:

The RETROFIT option should be used only during a manual software release transition scenario. It has a strong impact during the side switch: allows the side switch to occur even if the switch precheck fails. This can result in a level 3 boot depending on the nature of switch precheck failure. Misuse of this option can cause call processing downtime.

OOS = If specified, units selected for the off-line side may be initially Out of Service (OOS). The default requires those units to be ACT or STBY.

SEE PROPRIETARY NOTICE ON COVER PAGE

TRACE = This option should be used by authorized technical personnel only. It is for trouble shooting purposes, and will generate a significant amount of undocumented trace messages.

The default is no trace message generated.

4. SYSTEM RESPONSE

?A = Action field contains error.

?D = Data field contains error.

?E = Error exists in the message.

?I = Identification field contains error.

IP = In progress.

NG = No good.

RL = Retry later. Some activity is running, that is incompatible with EXC:OFLBOOT; for example, rcvcd.

5. REFERENCES

Input Messages

STOP:OFLBOOT

SW:OFLBOOT

Output Messages

EXC-OFLBOOT

REPT-OFLBOOT

STOP-OFLBOOT

SW-OFLBOOT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID EXC:UCL
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Causes the user shell to accept an input message that it previously rejected because it was not represented in the input message catalog data base.

When operating in the full capability mode, the user shell will reject any input message that is not represented in the input message (IM) catalog data base, with an error acknowledgement. Consequently, a missing or erroneous entry in the IM catalog will cause the user shell to reject the associated input message, even if it is typed correctly. If this should occur, the user can force the user shell to accept the message and attempt to execute it by entering the EXC:UCL command immediately following the error acknowledgement. This command affects only the message immediately preceding the rejected input message. It will not cause the user shell to re-execute a successful message or a message with a syntax error, and it has no effect on any subsequent message. If it is used to force the user shell to execute an invalid input message, the invalid message will be rejected by the program that processes it.

This command may be used only when the shell is operating in the full capability mode. It will be rejected if the shell is operating in the partial capability mode or limp mode.

2. FORMAT

EXC:UCL!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

NG = No good. The command has been rejected for one of the following reasons:

'EXC:UCL' INVALID IN PART MODE
CFTSHL CANNOT EXECUTE 'EXC:UCL' ITSELF
PREVIOUS COMMAND HAD A SYNTAX ERROR
NO PREVIOUS COMMAND AVAILABLE

OK = OK. Followed by the command to be executed, its acknowledgement, and any resulting output messages. Refer to the manual page for the previous command.

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5. 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 IN:DTIME
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Overrides the default computer generic access package (GRASP) dynamic real-time limit with a specified limit until the specified clock time or the end of the debugging session, whichever occurs first.

2. FORMAT

IN:DTIME *a*;**UNTIL** *b*!

3. EXPLANATION OF MESSAGE

- a* = Real time allowed to GRASP (specified in decimal). Values = 1-10000.
- b* = Clock time when override will expire; specified as a 24-hour clock time (for example, 1535 = 3:35 p.m.).

4. SYSTEM RESPONSE

- ?A = INVALID KEYWORD.
Not a valid action in a WHEN action list.
- ?I = General syntax error, or one of the following errors:
- RANGE ERROR (DTIME)
Dynamic time value is out of range.
- RANGE ERROR (UNTIL)
Invalid 24-hour clock time is specified.
- OK = Good. The request was received and has been processed.
- RL = Retry Later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages
IN:STIME
OP:UMEM
OP:UMEM;MCH

Output Message
REPT-GRASP

SEE PROPRIETARY NOTICE ON COVER PAGE

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

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID IN:F;APND
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Appends one line of user-supplied text at a specified location in a regular ASCII file. Directory and special device files cannot be edited.

NOTE: All file editing should proceed from the highest numbered line toward the lowest numbered line; otherwise, multiple edits could cause errors.

****CAUTION****

Insertion of incorrect data may make the file unusable.

2. FORMAT

**IN:FILE:APND, FN "a", LINE b/
"c"!**

3. EXPLANATION OF MESSAGE

- a* = Full pathname that specifies the file. Upon successful completion of the edit, a file called *a.bk*, where *a* is the file name entered, will contain the data in file *a* prior to the edit. Should the edit be unsuccessful, the *a.bk* file will either contain the same data as the original file, or it will not exist. See User Guidelines for a full description of pathnames.
- b* = Number of the line at which the input is to be appended. If the line number specified is larger or smaller than the number of lines in the file, the new line will be appended at the end of the file. Entering zero as the line number will insert the line of text before the first line of the file. If the file does not exist, entering zero in the line number will create the file.
- c* = User-supplied text. Entered on a separate line after entering the continuation character and receiving the acknowledgement IP. The maximum length is 511 characters.

The text must be enclosed in quotation marks, otherwise data may be lost and misleading error messages printed.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. SYSTEM RESPONSE

IP = In Progress. The request was received and has been initiated.
PF = Printout Follows. Followed by the IN-FILE, APND output message.

5. REFERENCES

Input Messages

DUMP:F;ALL

DUMP:F;PARTL

IN:F;DELT

IN:F;REPL

Output Message

IN-F, APND

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

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID IN:F;DEL
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Deletes one or more lines from a regular ASCII file. Directory files and special device files cannot be edited.

NOTE: All file editing should proceed from the highest-numbered line toward the lowest-numbered line; otherwise multiple edits could cause errors.

****CAUTION****

All existing data in the targeted lines of the file will be destroyed.

2. FORMAT

IN:FILE:DEL, FN "a", LINE b[-c]!

3. EXPLANATION OF MESSAGE

- a* = Full pathname of the file. Upon successful completion of the edit, a file called *a.bk*, where *a* is the filename entered, will contain the data in file *a* prior to the edit. Should the edit be unsuccessful, the *a.bk* file will either contain the same data as the original file, or it will not exist. See User Guidelines for a description of pathnames.
- b* = Number of the first (or only) line to be deleted. If the line number specified is larger than the number of lines in the file, the last line of the file is assumed.
- c* = Last line number of a range of lines to be deleted. If the line number specified is out of the range, the last line of the file is assumed.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the IN-FILE, DEL output message.

5. REFERENCES

Input Messages
DUMP:F;ALL
DUMP:F;PARTL
IN:F;REPL

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

DUMP-F, ALL
DUMP-F, PARTL
IN-F, APND
IN-F, DEL
IN-F, REPL

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID IN:F;DIR
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Creates a specified directory with read, write, and execute permissions for the owner, group and others (mode 777).

2. FORMAT

IN:FILESYS:DIR, FN "a"!

3. EXPLANATION OF MESSAGE

a = Full pathname of the directory to be created. See the User Guidelines in this manual for definitions of pathname and directory.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the IN-FILESYS,DIR output message.

5. REFERENCES

Input Message(s)
CLR:F;DIR
CLR:F;FILE

Output Message(s)
IN-F, DIR

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

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID IN:F;REPL
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Replaces one or more lines of a regular ASCII file with one line of user-supplied text. Directory files and special device files cannot be edited.

NOTE: All file editing should proceed from the highest-numbered line toward the lowest-numbered line; otherwise, multiple edits could cause errors.

****CAUTION****

All existing data in the targeted lines of the file will be destroyed. Insertion of incorrect data may make the file unusable.

2. FORMAT

IN:FILE:REPL, FN "a", LINE b[-c]/
"d" !

3. EXPLANATION OF MESSAGE

- a* = Full pathname of the file. Upon successful completion of the edit, a file called *a.bk*, where *a* is the file name entered, will contain the data in file *a* prior to the edit. Should the edit be unsuccessful, the *a.bk* file will either contain the same data as the original file, or it will not exist. See User Guidelines for a description of pathnames.
- b* = First or only line number of the lines to be replaced. If the line number specified is out of the range, the last line in the file will be replaced by the line *d*.
- c* = Last line number of a range of lines to be replaced. If out of range, the last line of the file is assumed.
- d* = User-supplied text. Entered on a separate line after entering the continuation character and receiving the acknowledgement *IP*. Terminated by the execution character. Maximum length is 511 characters.

The text must be enclosed in quotation marks; otherwise, data may be lost and misleading error messages printed.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. SYSTEM RESPONSE

IP = In progress. The request was received and has been initiated.
PF = Printout follows. Followed by the IN-FILE, REPL output message.

5. REFERENCES

Input Messages

DUMP:F;ALL
DUMP:F;PARTL
IN:F;DEL

Output Messages

DUMP-F, ALL
DUMP-F, PARTL
IN-F, APND
IN-F, DEL
IN-F, REPL

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID IN:REM;REPT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests a report about the current status of the active file receiving process.

2. FORMAT

IN:REMOTE:REPT!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. The message was successfully invoked; the REPT-IN, REMOTE output message will follow.

RL_BAD MEMORY ALLOCATION = Retry later. Request cannot be executed due to insufficient memory.

5. REFERENCES

Input Messages

IN:REM;START
IN:REM;STOP
UPD:CLR
UPD:VFY

Output Messages

IN-REM,ERROR
IN-REM,INIT
IN-REM,START
IN-REM,STOP
REPT-IN,REMOTE
UPD-CLR
UPD-VFY

SEE PROPRIETARY NOTICE ON COVER PAGE

ID IN:REM;START
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Puts the computer in the remote-file-receive mode. This message should be entered immediately before ordering delivery of broadcast warning message (BWM) files from the Software Change Administration and Notification System (SCANS-2), so that the transaction ID displayed in the IN-REMOTE output message can be supplied in the order to SCANS-2. BWMs must begin to arrive at the computer within 24 hours. Response messages are printed when they are initially received or when this time limit is reached.

2. FORMAT

IN:REMOTE:START[,BSDIR "a"][,BLOCKS b][,VLEV c]!

3. EXPLANATION OF MESSAGE

- a* = Full pathname of the base directory into which the received files are stored. See User Guidelines for definitions of pathname and directory. Default = /etc/bwm.
- b* = Number of blocks. The base directory is checked to ensure that at least *b* blocks of space are available. Default = 100.
- c* = Verbose level (0-546048). The only value of *c* that has any effect is 1, which prints the version number of the file receive process. Default = 0.

4. SYSTEM RESPONSE

PF = Printout follows. The message has been successfully invoked. Followed by an IN-REMOTE, INITIALIZED output message.

RL_BAD MEMORY
ALLOCATION = Retry later. Request cannot be executed due to insufficient memory.

5. REFERENCES

Input Messages
IN:REM;REPT
IN:REM;STOP
UPD:CLR
UPD:VFY

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

IN-REM, ERROR

IN-REM, INIT

IN-REM, START

IN-REM, STOP

UPD-CLR

UPD-VFY

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 Input

1. PURPOSE

Requests that the input of update files be terminated from a remote source. If file transmission has begun, a session-disconnect message is sent to the remote end to notify the Software Change Administration and Notification System (SCANS-2) of the termination.

2. FORMAT

IN:REMOTE:STOP!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

PF = Printout follows. The message has been successfully invoked. Followed by IN-REMOTE, STOPPED or IN-REMOTE, ERROR output message.

RL_BAD MEMORY ALLOCATION = Retry later. Request cannot be executed now due to insufficient memory.

5. REFERENCES

Input Messages

IN:REM;REPT
IN:REM;START
UPD:CLR
UPD:VFY

Output Messages

IN-REMOTE, ERROR
IN-REM, INIT
IN-REM, START
IN-REM, STOP
UPD-CLR
UPD-VFY

SEE PROPRIETARY NOTICE ON COVER PAGE

ID IN:STIME
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Overrides the default computer generic access package (GRASP) static time limit with a specified limit until the specified clock time or at the end of the debugging session, whichever occurs first.

2. FORMAT

IN:STIME *a*;**UNTIL** *b*!

3. EXPLANATION OF MESSAGE

- a* = Time limit per individual breakpoint, specified in milliseconds (1 - 20).
- b* = Clock time when override will expire, specified as 24-hour clock time (in the limit hhmm).

4. SYSTEM RESPONSE

- ?A = INVALID KEYWORD. Not a valid action in a WHEN action list.
- ?I = General syntax error, or one of the following errors:
- RANGE ERROR (STIME)
Static time value is out of range.
 - RANGE ERROR (UNTIL)
Invalid 24-hour clock time is specified.
- OK = Good. The request was received and has been processed.
- RL = Retry later. The system is in an overload condition.

5. REFERENCES

Input Message
IN:DTIME

Output Message
REPT-GRASP

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID IN:XFER
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests that the remote file transfer system be either started or stopped. The remote file transfer system resides in the 3B processor. When this system is running, files may be transferred between it and a specific support computer.

2. FORMAT

IN:XFER:{START|STOP}!

3. EXPLANATION OF MESSAGE

START = Start the remote file transfer system. Once started, the system is active for one transaction, 24 hours, or until stopped, whichever occurs first.

STOP = Stop the remote file transfer system.

4. SYSTEM RESPONSE

NG = No good. Valid values are:

NOT ACTIVATED = System is not running.

PREVIOUS PASSWORD HAS EXPIRED = System was previously started, but the 24-hour time limit expired without an attempt to use it.

OK = Good. System has been stopped. Valid values are:

PASSWD = *a* = System has been started. Report the password *a* to the support person who requested this command be entered.

PASSWD = *b*, EXPIRES *c* = System is running. Report the password *b* and the expiration time *c* to the support person who requested this command be entered.

PF = Printout follows. An IN:XFER output message follows.

5. REFERENCES

Output Message(s):
IN-XFER

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID INH:AUD
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Inhibits the routine execution of one or more audits that are controlled by the system integrity monitor (SIM). Entering the INH:AUD command sets one or more audit inhibits to the manually inhibited state. This state can be removed only by entering an ALW:AUD command. Every audit inhibit is removed by a phase 3 bootstrap.

Separate inhibit states are provided for:

- All audits. Entering the INH:AUD command with the ALL option turns off routine audit scheduling completely, but has no effect on the inhibit states of individual audits.
- Each audit identified by audit name and member number. When an audit is inhibited it is not scheduled to run routinely. However, if it is permitted to run manually, it may be run by entering an AUD command.
- One instance of an audit may be inhibited while other instances are allowed to run routinely.

Audit inhibit states may be displayed by entering the OP:AUD command. The REPT-AUDSTAT output message periodically reports which audits are inhibited.

****CAUTION****

Inhibiting audits may result in degradation of associated operating system resources.

2. FORMAT

INH:AUD:{ALL|a[b]|a c, INS d}!

3. EXPLANATION OF MESSAGE

ALL = Specifies all audits controlled by the SIM. Sets a master inhibit state which is independent of the inhibit states for individual audits.

a = Audit name. Computer audit names can be found in the Member Numbers Appendix, MEM-NUM-APPB.

NOTE: If a is specified without b, all members of the audit will be inhibited.

b = Member number. May be specified as a single number or a list of numbers. (See the Member Numbers Appendix, MEM-NUM-APPB.) See the User Guidelines in this manual for instructions on entering lists of numbers.

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- c* = Single member number. (See the Member Numbers Appendix, MEM-NUM-APPB.)
- d* = Instance name. See the System Audits chapter in the System Maintenance Manual.

4. SYSTEM RESPONSE

See the input Audit Appendix, AUD.

5. REFERENCES

Input Appendix(es)
AUD
MEM-NUM-APPB

Input Message(s)
ALW:AUD
OP:AUD

Output Message(s)
OP-AUD
INH-AUD
REPT-AUDSTAT

PA-4C006-01 *System Audit Guide*

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:CONFLOG
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Inhibits error logging on the CONFLOG error logfile for all specified computer units.
Error logging does not occur for any unit beneath the unit specified.

2. FORMAT

INH:CONFLOG;*a b*!

3. EXPLANATION OF MESSAGE

- a* = Unit name, as specified in the unit control block (UCB). Computer names are listed in the Members Numbers Appendix, MEM-NUM-APPC, Table C.
- b* = Unit number, as specified in the unit control block. (See Member Numbers Appendix, MEM-NUM-APPC, Table C.)

4. SYSTEM RESPONSE

- OK = Good. Request accepted.
- PF = Printout Follows. Followed by an INH-CONFLOG output message.
- RL = Retry Later.
- ?I = Message syntax is invalid or the unit name or number does not exist in the equipment configuration database (ECD).

5. REFERENCES

Input Appendix
MEM-NUM-APPC

Input Message
ALW:CONFLOG

Output Message
INH-CONFLOG

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID INH:DMQ
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Inhibits the specified source of automatic maintenance requests. Any process that sends a restore, remove, or diagnose request to the computer maintenance input request administrator can be prevented from doing so for the amount of time specified. A reminder that a specific inhibit is in effect is output at the specified intervals.

****CAUTION****

Inhibiting automatic maintenance requests may result in hardware units remaining out-of-service (OOS) longer than necessary.

NOTE: The automatic maintenance requests will remain inhibited until the appropriate ALW:DMQ or, in the case of routine exerciser (REX), an ALW:REX input message is issued.

2. FORMAT

INH:DMQ;SRC *a*[, TINH *b*][, AINH *c*]!

3. EXPLANATION OF MESSAGE

- a* = Three-character source name. Computer source names are:
- ADP — Automatic diagnostic process.
 - ALL — Inhibits all automatic maintenance requests by changing the inhibited sources to ALL.
 - ARR — Automatic ring recovery.
 - REX — Routine exerciser.
- b* = The amount of time, in minutes (1 - 32767), that the requests will be inhibited. The default is infinity. Specifying zero is the same as defaulting.
- c* = Alarm interval in minutes (1 - 32767). Each time this period elapses, a REPT-DMQ output message will be printed, indicating the inhibit that is in effect. The default is five minutes.

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4. SYSTEM RESPONSE

- OK = Good. Request accepted.
- RL = Retry later. The system is in an overload condition.
- ?I = General syntax error, followed by the parameter position and one of the following keywords:
- MISSING KEYWORD
A required keyword is missing from the input.
 - EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID DATA
Not a valid value for the AINH or TINH value.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?D = General syntax error in the data field, followed by the parameter position and the following reason:
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.

5. REFERENCES

Input Messages

ALW:DMQ
ALW:REX
OP:DMQ

Output Messages

INH-DMQ
OP-DMQ
REPT-DMQ

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID INH:EAIINT
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Inhibits the logging and processing of emergency action interface (EAI) error interrupts from the 3B21D computer control unit (CU) specified in the identification field. If a CU is not specified with the input command, EAI error interrupts for both CUs are inhibited.

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

****CAUTION****

Inhibiting EAI error interrupts can prevent the system from recovering automatically from hardware faults.

2. FORMAT

This message has two formats.

[1] **INH:EAIINT!**

[2] **INH:EAIINT;CU a!**

3. EXPLANATION OF MESSAGE

a = CU number 0 or 1.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the INH-EAIINT output message.

?I - INPUT ERROR = Identification field error.

5. REFERENCES

Input Messages
ALW:ERRCHK
INH:EAIINT
INH:ERRCHK

Output Messages
ALW-EAIINT
INH-EAIINT
OP-ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID INH:ERRCHK-A
GENERIC UNIX RTR R1.5 and R6.4
TYPE Input

1. PURPOSE

Inhibits the logging and processing of all computer error sources. This message causes the inhibit administrator to set the inhibit status to inhibited for all UNIX® RTR inhibit sources. These include HDWCHK, SFTCHK, ERRINT, and the ERRSRC pseudo-nodes representing the control unit (CU) complexes.

****CAUTION****

Inhibiting hardware checks, software checks, and error interrupts can prevent the system from recovering automatically from hardware or software faults.

2. FORMAT

INH:ERRCHK!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the INH-ERRCHK output message.
?I = Identification field error.

5. REFERENCES

Input Messages

ALW:ERRCHK
INH:ERRINT
INH:ERRSRC
INH:HDWCHK
INH:SFTCHK
OP:ERRCHK

Output Messages

ALW-ERRCHK
INH-ERRCHK
OP-ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID INH:ERRCHK-B
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Inhibits the logging and processing of all computer error sources. This message causes the inhibit administrator to set the inhibit status to inhibited for all computer inhibit sources. These include HDWCHK, SFTCHK, EAIINT, ERRINT, and the ERRSRC pseudo-nodes representing the control unit (CU) complexes.

NOTE: The 3B20D computer CUs do not have emergency action interface (EAI) error interrupts (EAIINT).

****CAUTION****

Inhibiting hardware checks, software checks, and error interrupts can prevent the system from recovering automatically from hardware or software faults.

2. FORMAT

INH:ERRCHK!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the INH-ERRCHK output message.
?I = Identification field error.

5. REFERENCES

Input Messages
ALW:ERRCHK
INH:EAIINT
INH:ERRINT
INH:ERRSRC
INH:HDWCHK
INH:SFTCHK
OP:ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

ALW-ERRCHK

INH-ERRCHK

OP-ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID INH:ERRINT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Inhibits the logging and processing of error interrupts attached to the computer unit specified in the identification field. If a unit name is not specified, then error interrupts for all computer units are inhibited.

****CAUTION****

Inhibiting error interrupts can prevent the system from recovering automatically from hardware faults.

2. FORMAT

INH:ERRINT[;*a b[,c d]*]!

3. EXPLANATION OF MESSAGE

a = Unit name. Computer unit names are listed in the Member Numbers Appendix, MEM-NUM-APPC, Table C.

NOTE: Inhibiting a control unit (CU) in an active/standby duplex configuration inhibits both CUs since they must be kept in identical states.

b = Unit number. (See Member Numbers Appendix, MEM-NUM-APPC, Table C.)

c = Subunit name, if *a*=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-APPD, Table D.)

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the INH-ERRINT output message.

?I - INPUT ERROR = Identification field error. Possibly indicates the unit name and number specified cannot be found in the data base.

NG - UNEQUIPPED UNIT = No Good. Indicates unit name and number specified was found in the data base, but is unequipped.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

Input Appendixes
MEM-NUM-APPC
MEM-NUM-APPD

Input Messages
ALW:ERRCHK
INH:ERRCHK
INH:ERRINT

Output Messages
ALW-ERRINT
INH-ERRINT
OP-ERRCHK

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ID INH:ERRSRC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Inhibits the logging and processing of errors specific to the pseudo-nodes representing the computer control unit (CU) communities. This message causes the inhibit administrator to set the inhibit status to inhibited for the CU pseudo-nodes.

2. FORMAT

INH:ERRSRC!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the INH-ERRSRC output message.
?I = Identification field error.

5. REFERENCES

Input Messages
ALW:ERRSRC
INH:ERRCHK
OP:ERRCHK

Output Messages
ALW-ERRSRC
INH-ERRSRC
OP-ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID INH:F;UMOUNT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Inhibits the use of a previously mounted file system. It informs the system that the removable file system previously mounted is to be removed.

****CAUTION****

Incorrect use of this command can prevent the system from accessing needed files.

2. FORMAT

INH:FILESYS:UMOUNT, FN "a"!

3. EXPLANATION OF MESSAGE

a = Special device name of the file system to be unmounted. See User Guidelines for definitions of special device name and pathname.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the INH-FILESYS,UMOUNT output message.

5. REFERENCES

Input Message(s)
ALW:F;MOUNT
OP:ST;FILESYS

Output Message(s)
INH-F,UMOUNT
OP-ST,FILESYS

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

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID INH:HDWCHK
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Sets the system status register such that a control unit (CU) switch is not implemented as a normal fault recovery action. This inhibits a switch to the standby computer control unit when a fault occurs in the active computer control unit.

****CAUTION****

Inhibiting hardware checks can prevent the system from recovering automatically from hardware faults in the active CU.

2. FORMAT

INH:HDWCHK!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the INH-HDWCHK output message.
?I = Identification field error.

5. REFERENCES

Input Messages
ALW:HDWCHK
INH:ERRCHK
OP:ERRCHK

Output Messages
ALW-HDWCHK
INH-HDWCHK
OP-ERRCHK

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:REX-A
GENERIC UNIX RTR R1.5 and R6.4
TYPE Input

1. PURPOSE

Inhibits routine exercise (REX) for one or more hardware communities. A hardware community consists of a major device controller and its associated subdevices.

2. FORMAT

INH:REX:{*a*[*b*]|**ALL**}!

3. EXPLANATION OF MESSAGE

a = Unit name of a major community controller. Applications may add additional major controllers which may be inhibited by this command. Computer controllers are:

CU — Control unit.

DFC — Disk file controller.

NOTE: In all RTR releases, REX is permanently inhibited from DFCs for reliability reasons. The REX permanent inhibit from DFCs is not affected by this command. In later RTR releases, DFC is not a valid unit name for this command.

IOP — Input/output processor.

b = Unit number (see the Member Numbers Appendix, MEM-NUM-APPC, Table C). If not specified, then all controllers with the specified unit name are inhibited.

ALL = Set the REX inhibits for all major community controllers.

4. SYSTEM RESPONSE

OK = Good. REX is inhibited for the unit(s) specified.

?D = Data field error.

RL = Retry Later.

5. REFERENCES

Input Appendix
MEM-NUM-APPC

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

ALW:DGN
ALW:DMQ
ALW:REX
INH:DGN
INH:DMQ
OP:DGN
OP:DMQ
OP:REXINH

Output Messages

OP-DGN
OP-DMQ
OP-REXINH

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:REX-B
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Inhibits routine exercise (REX) for one or more hardware communities by setting the REX temporary inhibit(s). A hardware community consists of a major device controller and its associated subdevices. If a hardware community has REX permanently inhibited, its REX temporary inhibit is not available.

2. FORMAT

INH:REX:{a[b]|ALL}!

3. EXPLANATION OF MESSAGE

- a* = Unit name of a major community controller. Applications may add additional major controllers which may be inhibited by this command. Computer controllers are:
- CU — Control unit.
 - DCI — Dual serial channel/computer interconnect. Input/output processor.
 - IOP — Input/output processor.
- b* = Unit number (see the Member Numbers Appendix, MEM-NUM-APPC, Table C). If not specified, then all controllers with the specified unit name are inhibited.
- ALL** = Set the temporary REX inhibits for all major community controllers that are not permanently inhibited from REX.

4. SYSTEM RESPONSE

- OK = Good. REX is temporarily inhibited for the unit specified, or for at least one of the units specified.
- NG = No Good. REX is permanently inhibited for the unit specified, or for all the units specified.
- ?D = Data field error.
- PF = Printout Follows. Followed by the INH-REX output message.
- RL = Retry Later. The database manager or a database record could not be opened, try again at a later time. If this persists, seek technical assistance.

5. REFERENCES

Input Appendix
MEM-NUM-APPC

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

ALW:DMQ
ALW:REX
INH:DMQ
OP:DMQ
OP:REXINH

Output Messages

INH-REX
OP-DMQ
OP-REXINH

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:SCSD-A
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Inhibits reporting of transitions of a scanner and signal distributor (SCSD) scan point. Scan points can be identified by physical location (as in Format 1) or by logical address (as in Format 2).

2. FORMAT

[1] **INH:SCSD;UNIT** *a*:PT{*b*|(*b*,*b*[,*b*,*b*,*b*,*b*,*b*])}!

[2] **INH:SCSD;GRPN** *c*,**DUPI***D* *d*:PT{*e*|(*e*,*e*[,*e*,*e*,*e*,*e*])}!

3. EXPLANATION OF MESSAGE

- a* = Member number of the SCSD unit (0-16).
b = Physical scan point number on an SCSD (0-47).
c = Name of the logical SCSD group. Computer logical scan groups are:

FANACU0
FANACU1
PDF0
PRSWCU0
PRSWCU1
PRSWIOP0
PRSWIOP1
PRSWDFC0
PRSWDFC1
PRSWMHD0
PRSWMHD1
PTSWROP
PTSWMCR

The `imcatlg` will not recognize any other logical scan groups. If an unrecognized logical scan group is used in the input message, the command `EXC:UCL` must be entered immediately following the message. This will cause the craft shell to accept this input message, thereby allowing the SCSD software to process and execute it.

- d* = Duplex point ID (0 or 1).
e = Number of a point within a logical group (0-5).

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4. SYSTEM RESPONSE

NG = No Good. SCSD administrator process is not active; no communication with SCSD points is possible.

PF = Printout Follows. Followed by the INH-SCSD output message.

RL = Retry Later.

5. REFERENCES

Input Messages

ALW:SCSD
OP:SCSD
EXC:UCL

Output Messages

INH-SCSD
RCVRY-SCSDC
REPT-FAN, INHIBIT
REPT-SCSDC

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

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ID INH:SCSD-B
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Inhibits reporting of transitions of a scanner and signal distributor (SCSD) scan point. Scan points can be identified by physical location (as in Format 1) or by logical address (as in Format 2).

2. FORMAT

This message has two formats.

[1] **INH:SCSD;UNIT** *a*:**PT**{*b*|(*b*,*b*[,*b*,*b*,*b*,*b*,*b*,*b*...])}!

[2] **INH:SCSD;GRPN** "*c*",**DUPI***d*:**PT**{*e*|(*e*,*e*[*e*,*e*,*e*,*e*])}!

3. EXPLANATION OF MESSAGE

- a* = Member number of the SCSD unit (0-16).
- b* = Physical scan point number on an SCSD (0-47).
- c* = Name of the logical SCSD group. Examples are:

FANACU0
FANACU1
PDF0
PRSWCU0
PRSWCU1
PRSWIOP0
PRSWIOP1
PRSWDFC0
PRSWDFC1
PRSWMHD0
PRSWMHD1
PTSWROP
PTSWMCR

- d* = Duplex point ID (0 or 1).
- e* = Number of a point within a logical group (0-5).

4. SYSTEM RESPONSE

- NG = No good. SCSD administrator process is not active; no communication with SCSD points is possible.
- PF = Printout follows. Followed by the INH-SCSD output message.
- RL = Retry later.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

Input Messages

ALW:SCSD

OP:SCSD

Output Messages

INH-SCSD

RCVRY-SCSDC

REPT-FAN, INHIBIT

REPT-SCSDC

Practice 254-341-110 *DMERT Kernel and Basic Services 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

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID INH:SFTCHK
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Inhibits the use of system initialization when handling computer software errors.

****CAUTION****

Inhibiting software checks can prevent the system from recovering automatically from software faults, data corruption, or overload conditions.

2. FORMAT

INH:SFTCHK!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the INH-SFTCHK output message.

5. REFERENCES

Input Messages
ALW:SFTCHK
INH:ERRCHK
OP:ERRCHK

Output Messages
ALW-SFTCHK
INH-SFTCHK
OP-ERRCHK

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:UMEM
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Causes the computer generic access package (GRASP) transfer trace to stop monitoring the flow of execution. The transfer trace goes into the STOPPED state with successful completion of the message. This message can be called as an immediate action, or it can be used in the action list of a WHEN.

2. FORMAT

INH:UMEM{/|!}

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

IP = In progress. The message has been added to the WHEN action list.
NG = No good. No trace is defined.
PF = Printout follows. Followed by an INH-UMEM output message.
RL = Retry later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.
?I = General syntax error.

5. REFERENCES

Input Messages
ALW:UMEM
INIT:UMEM
OP:UMEM
OP:UMEM;MCH
OP:UTIL
WHEN:PID
WHEN:UID

Output Messages
INH-UMEM
OP-UTIL

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:UTIL
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Disables (but leaves defined) all computer generic access package (GRASP) breakpoints. Inhibits the associated actions normally executed when the breakpoint conditions occur.

2. FORMAT

INH:UTIL{! | /}

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

IP = In Progress. The message has been added to the WHEN action list.
NG = No Good. No GRASP breakpoints are currently defined.
PF = Printout Follows. Followed by an INH-UTIL output message.
RL = Retry Later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages

ALW:UTIL
INH:UTILFLAG
OP:UTIL
OP:UMEM
OP:UMEM;MCH
WHEN:PID
WHEN:UID

Output Messages

INH-UTIL
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 Input

1. PURPOSE

Disables (but leaves defined) a specific computer generic access package (GRASP) breakpoint. Inhibits the associated actions that normally are executed when the breakpoint condition occurs. Within a WHEN action list, the identifier **ME** can be used to refer to the breakpoint being defined, since the breakpoint number has not yet been assigned.

2. FORMAT

INH:UTILFLAG {*a*|**ME**}{!|/}

3. EXPLANATION OF MESSAGE

a = Numeric identifier (one or more decimal digits) of the breakpoint to be disabled.

ME = Used within a WHEN action list to refer to the breakpoint being defined.

4. SYSTEM RESPONSE

IP = In Progress. The message has been added to the WHEN action list.

NG = No Good. Identifier does not correspond to a currently defined breakpoint.

PF = Printout Follows. Followed by an INH-UTILFLAG output message.

RL = Retry Later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages
ALW:UTILFLAG
INH:UTIL
OP:UTIL
OP:UMEM
OP:UMEM;MCH
WHEN:PID
WHEN:UID

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
INH-UTILFLAG
OP-UTIL
WHEN-PID
WHEN-UID

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

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID INIT:MHD-A
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Formats all or specific disk tracks of a moving head disk (MHD) pack with initialized sectors. This consists of writing a preamble, sync, header, data section, error correction code (ECC), and postamble on 32 sectors. The data section is 512 bytes of zeroes.

NOTE: New disk packs have no sectors and must be formatted before being used. It may take several minutes to format a complete disk pack.

The **NEW** option must be used if a new disk pack is being initialized and defect management is supported for the drive size.

****CAUTION****

Any existing data on the targeted disk tracks will be destroyed.

2. FORMAT

INIT:MHD *a* [**VERIFY**][**:TRACK** *b*[-*c*]] [**:NEW**]!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

VERIFY = Verify each section of the disk after formatting.

NOTE: A VER-MHD output message will not result if this option is specified.

b = Number of the tracks to be formatted, or the lower limit of a range of tracks to be formatted (0-17064) notation.

c = Upper limit of a range of track numbers.

NEW = Build remapping information using the manufacturer's defect table.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by an INIT-MHD output message.

5. REFERENCES

Input Message
VER:MHD

Output Messages
INIT-MHD
VER-MHD

SEE PROPRIETARY NOTICE ON COVER PAGE

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

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID INIT:MHD-B
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Formats all or specific disk tracks of the disk pack with initialized sectors.

NOTE: New disk packs have no sectors and must be formatted before being used.

For storage module device moving head disk (SMD MHDs), disk tracks are formatted a section at a time under the control of the format command.

For small computer system interface moving head disk (SCSI MHDs), the entire disk is formatted by the SCSI drive's embedded controller.

It may take up to 30 minutes to format a complete disk pack.

****CAUTION****

Any existing data on the targeted disk tracks will be destroyed.

2. FORMAT

INIT:MHD *a*[;**VFY**][:**TRACK** *b*[-*c*]|**NEW**]

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

VFY = This option will invoke the verify procedure.

For SMD MHDs, the verify procedure is performed immediately after each section of the disk is formatted.

For SCSI MHDs, the entire disk is formatted, then the verify procedure is performed.

NOTE: A VFY-MHD output message will not result if this option is selected.

b = For SMD MHDs, specifies the track number to be formatted (and verified). The track number may be a single track number or the first track number in the range. The range of valid track numbers is 0 to 17604. Track numbers are given in decimal notation.

For SCSI MHDs, this option is not valid because specific tracks cannot be formatted.

SEE PROPRIETARY NOTICE ON COVER PAGE

c = For SMD MHDs, specifies the last track number of a range (0-17064) to be formatted (and verified).

For SCSI MHDs, this option is not valid because specific tracks cannot be formatted.

NEW = For SMD MHDs, build defect management maps using the manufacturer's defect table. The result is a new working (COMBINED) defect map.

The **NEW** option must be used if a new disk pack is being formatted and defect management is supported for the drive size.

For SCSI MHDs, this option is not valid since the **PRIMARY** manufacturer's defect table cannot be altered. New defects can only be added to the **GROWING** defect table.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by an INIT-MHD output message.

5. REFERENCES

Input Message
VFY:MHD

Output Messages
INIT-MHD
VFY-MHD

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INIT:UC-A
GENERIC UNIX RTR R1.5 and R6.4
TYPE Input

1. PURPOSE

Informs the computer generic access package (GRASP) that a working utility circuit has been installed so that GRASP will again accept trace and hardware breakpoint definitions.

2. FORMAT

INIT:UC!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

- ?A = INVALID KEYWORD
Not a valid action in a WHEN action list.
- ?I = General syntax error.
- NG = No Good. One of the following errors:
- STATE ERROR
The circuit is already initialized.
 - UC IS FUNCTIONAL
No failure had been detected.
 - UC WOULD NOT INITIALIZE
The circuit still would not respond. Hardware breakpoint and trace definitions will continue to be rejected.
- RL = Retry Later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages
OP:UMEM
OP:UMEM;MCH

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INIT:UC-B
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Informs the computer generic access package (GRASP) that a working utility circuit has been installed so that GRASP will again accept trace and hardware breakpoint definitions, reset the utility circuit if an error occurred, or end the GRASP session.

2. FORMAT

INIT:UC[:END][:UCL];

3. EXPLANATION OF MESSAGE

- UCL** = Perform the initialization unconditionally (even if no error has been detected).
- END** = End the GRASP session and cause GRASP to terminate if no traces or breakpoints are set. Using **END** with **UCL** will cause GRASP to terminate even if traces or breakpoints are set.

4. SYSTEM RESPONSE

- ?A = INVALID KEYWORD Not a valid action in a WHEN action list.
- ?I = General syntax error.
- NG = No good. One of the following errors:
- STATE ERROR
The circuit is already initialized, or a trace or breakpoint is defined when trying to end GRASP.
 - UC IS FUNCTIONAL
No failure had been detected.
 - UC WOULD NOT INITIALIZE
The circuit still would not respond. Hardware breakpoint and trace definitions will continue to be rejected.
- RL = Retry later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages
OP:UMEM
OP:UMEM;MCH

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INIT:ULARP
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Initializes the UNIX®-level automatic restart process (ULARP). This action restarts any ULARP-controlled process that is not executing. It will also start any UNIX®-level process that has had a record added to the equipment configuration data base (ECD) and is not yet executing.

2. FORMAT

INIT:ULARP!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

OK = Good. Indicates an attempt to initialize ULARP. Error information is output in the form of processor recovery messages and REPT-ULARP output messages.

PF = Printout Follows. Followed by an INIT-ULARP output message.

5. REFERENCES

Input Messages
OP:ULARP;COM
OP:ULARP;PROC

Output Messages
INIT-ULARP
OP-ULARP,COM
OP-ULARP,PROC
REPT-ULARP

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INIT:UMEM-A
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Specifies the definition of a computer generic access package (GRASP) trace to be set up. The trace enters the NEW state with the successful completion of the command.

2. FORMAT

INIT:UMEM[, {**UID** *a* | **PID** *b* }][, **ADDR** {*c-d* | *c* [, **L** *e*]}]
[**STORE**{**UID** | **TRANSFER** }][, **STOP FULL**][, **WORD**] !

3. EXPLANATION OF MESSAGE

- a* = Utility ID number of the target process.
- b* = Process ID number of the target process.
- c* = Starting byte address of the range to which tracing will be restricted. The ADDR keyword cannot be used when STORE=FUNCPAR.
- d* = Ending byte address of the range to which tracing will be restricted.
- e* = Length of the range of addresses to which tracing will be restricted. The default is four bytes unless a range is explicitly stated.

STORE=UID = Only changes in utility IDs will be stored. This gives a longer history but less detail.

STORE=TRANSFER = Both changes in utility IDs and branches will be stored. This is the default if the STORE option is not specified.

STOP=FULL = The transfer trace will stop collecting data and will enter the STOPPED state when the memory is filled with data. Without this option, the trace will continue to collect data, overwriting the oldest data, until stopped by an INH:UMEM input message.

WORD = Indicates that all addresses and lengths are to be interpreted in terms of words. If this option is omitted, they are assumed to be byte values.

4. SYSTEM RESPONSE

- NG** = No good. Includes one of the following:
 - **STATE ERROR**
A trace is already defined.
 - **UCERR**
The utility circuit is unavailable.
- PF** = Printout follows. Followed by an INIT-UMEM output message.
- RL** = Retry later or wait for previous OP:UMEM to complete. The system is in an overload condition.

SEE PROPRIETARY NOTICE ON COVER PAGE

- ?A = INVALID KEYWORD Command not allowed in a WHEN action list.
?I = General Syntax Error.

5. REFERENCES

Input Messages

ALW:UMEM
CLR:UMEM
INH:UMEM
OP:ST;PROC
OP:UMEM
OP:UTIL

Output Messages

INH-UMEM
INIT-UMEM
OP-UTIL

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

SEE PROPRIETARY NOTICE ON COVER PAGE

```

ID ..... INIT:UMEM-B
GENERIC ..... UNIX RTR R6.4, R21.3,
                R21.11, R21.15 and later
TYPE ..... Input

```

Specifies the definition of a computer generic access package (GRASP) trace to be set up. The trace enters the **NEW** state with the successful completion of the command.

```
INIT:UMEM[, {UID a|PID b}][, ADDR {c-d|c[, L e|NL f}]]
[, STORE g][, STKADD h[, STKSZ i]][, STOP FULL]
[[, COND j][, j][, j][;WORD] !
```

- a* = Utility ID number of the target process.
- b* = Process ID number of the target process.
- c* = Starting byte address of the range to which tracing will be restricted. Ending byte address of the range. If the NL option is used, then the bracket ([]) ending byte address of the range.
- d* = Ending byte address of the range to which tracing will be restricted. When specifying UID, TRANSFER, DATA, or TRANDATA traces, the address range can be arbitrary. When specifying FUNCTION, FUNCPAR, or DATAFUNC traces, however, the starting and ending addresses must be of a form where the leftmost hexadecimal digits of both are equal, and the rightmost digits of the starting address are all 0 and the rightmost digits of the ending address are F. For example, 0x123000 - 0x123FFF or 0x10000 - 0x1FFFF.
- e* = Length of the range of addresses to which tracing will be restricted. The default is four bytes unless a range is explicitly stated.
- f* = Length of the range of addresses to which tracing will be restricted where the starting address is calculated as ADDR - *f* + 1.
- g* = Information to be stored.
- | | |
|----------|--|
| UID | - Store only changes in utility IDs will be stored. This gives a longer history but less detail. |
| TRANSFER | - Both changes in utility IDs and branches will be stored. This is the default if the STORE option is not specified. |
| FUNCTION | - Both function call and return instructions will be stored with the address of the instruction and the address branched to. |
| DATA | - Data accesses for the specified address or range of addresses will be stored. |

TRANDATA - Information for both data history trace and transfer trace will be stored.

FUNCPAR - Function calls and parameters passed for the function will be stored. A stack start address and a stack size may also be specified with this trace type. The ADDR keyword cannot be used when STORE=FUNCPAR.

DATAFUNC - Both information for data history traces over a specified address range and function calls with parameters passed are stored. As with FUNCPAR, a stack start address and a stack size may be specified.

- h* = The stack start address for the process being traced. This is an optional input that can only be specified if STORE=FUNCPAR or STORE=DATAFUNC. The default is H'6A0000.
- i* = The size of the user stack specified with the stack start address. The default is H'10000. If a stack address and stack size are specified, they must specify an address range as described in the previous section. For example, the default stack address is 0x6A0000 and stack size is 0x1000. This specifies an address range of 0x6A0000 through 0x6A0FFF. A function with parameters trace uses two triggers.
- j* = Match condition to inhibit a running trace. GRASP cannot trace across an initialization, nor control the dual access utility circuit in an off-line control unit (CU). The possible conditions are:
 - E — to match on external input via the AM backplane
 - M — to match on a maintenance reset function (MRF)
 - S — to match on a stop-and-switch.
- FULL** = The transfer trace will stop collecting data and will enter the STOPPED state when the memory is filled with data. Without this option, the trace will continue to collect data, overwriting the oldest data, until stopped by an INH:UMEM input message.
- WORD** = Interpact all addresses and lengths in terms of words. If this option is omitted, they are assumed to be byte values.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. SYSTEM RESPONSE

- NG = No good. Includes one of the following:
- STATE ERROR
A trace is already defined.
 - UCERR
The utility circuit is unavailable.
- PF = Printout follows. Followed by an INIT-UMEM output message.
- RL = Retry later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages

ALW:UMEM
CLR:UMEM
INH:UMEM
OP:ST;PROC
OP:UMEM
OP:UMEM;MCH
OP:UTIL

Output Messages

INH-UMEM
INIT-UMEM
OP-UTIL

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

Practice 254-302-837 *Lucent Technologies 3B20D Model 2 and Model 3 Computers Common System Growth and Retrofit*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:ADDR
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Loads a computer virtual address with specified data as an action associated with a breakpoint.

2. FORMAT

LOAD:ADDR *a*[, **OFF** *b*][, **L** *c*][**WORD**]:**D** *d*/

3. EXPLANATION OF MESSAGE

- a* = The starting virtual address for the data in octal, hexadecimal, or decimal notation. Assumed to be a byte address unless the **WORD** option is used. The address must be in a segment which is not write-protected. Note that text segments are usually write-protected.
- b* = Single offset or list of up to five offsets. Omission of the keywords implies no indirect addressing. Offsets are bytes unless the **WORD** option is used.
- c* = The length of the load, assumed to be bytes unless the **WORD** option is used. The range is 1 - 20 bytes or 1 - 5 words. The default for an omitted or zero length is 1. The specified length must agree with the data as explained below.
- WORD** = Indication that addresses and lengths are to be interpreted in terms of words. If this option is omitted, addresses and lengths are assumed to be byte values.
- d* = One or more numbers representing data to be loaded. If more than one number is given, all but the last are assumed to represent four bytes of data. The last or only number is taken to represent the number of bytes of data (up to four) needed to make the data list correspond to the length *c*.

4. SYSTEM RESPONSE

- ?I = Syntax error or one of the following:
- **INCONSISTENT DATA (L + D)**
Length and amount of data specified do not agree.
 - **MISSING KEYWORD**
Utility identification (UID) or process identification (PID) is required except in a **WHEN** action list.
 - **RANGE ERROR (L)**
Length too long.

SEE PROPRIETARY NOTICE ON COVER PAGE

IP = In Progress. The message has been added to the WHEN action list.
RL = Retry Later. The system is in an overload condition.

5. REFERENCES

Input Messages

COPY:ADDR
COPY:PID
COPY:REG
COPY:UID
COPY:UVAR
WHEN:PID
WHEN:UID

Output Messages

LOAD-ADDR
LOAD-PMEM
LOAD-REG
LOAD-UVAR

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:DFC;PUMP-A
GENERIC UNIX RTR R6.4, R21.3
 and R21.11
TYPE Input

1. PURPOSE

Download the pumpcode to small computer system interface disk file controller (SCSI DFC). The control of SCSI host adaptor (HA) (DFC) will be transferred from firmware to pumpcode after the pumpcode is successfully downloaded. The command can also be used to request the computer disk driver to automatically perform the whole pump procedure. Furthermore, the integrity of the pumpcode stored as a disk file can be verified using this command.

2. FORMAT

LOAD:DFC *a*;**PUMP** [:FN "*b*"[, **CHECKSUM**]]!

3. EXPLANATION OF MESSAGE

- a* = Member number (0-255).
- b* = Full pathname that specifies the file containing pumpcode to be downloaded into SCSI HA (DFC) or to be checked for the integrity of its data. The specified file name will be ignored when the downloading is to be done automatically by the disk driver; since the driver will use the information stored in the DFC's UCB record to build the pumpcode file name. The file specified in the UCB record must exist in the directory /dfc, and the file name derived from the UCB record has the format xyz, where *x* is the 4-alphanumeric characters packcode value (i.e., u214) stored in the packcode field of the UCB, *y* is the 2-digit value stored in the issue field of the UCB, and *z* is the 2-digit value stored in the version field of the the specified DFC's UCB. An example of a typical pumpcode file name is u21471; the pumpcode version implied by this filename is 7, the pumpcode issue is 1, and the packcode number is u214.

CHECKSUM = When this option is used, the integrity of the pumpcode contained in the specified file will be verified; no pumpcode downloading will occur.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a LOAD-DFC output message.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

Input Message

LOAD:DFC;RAM

Output Messages

LOAD-DFC, PUMP

REPT-DFC, PUMP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:DFC;PUMP-B
GENERIC UNIX RTR R21.15 and
later
TYPE Input

1. PURPOSE

Download the pumpcode to small computer system interface disk file controller (SCSI DFC). The control of SCSI host adaptor (HA) (DFC) will be transferred from firmware to pumpcode after the pumpcode is successfully downloaded. The command can also be used to request the computer disk driver to automatically perform the whole pump procedure. Furthermore, the integrity of the pumpcode stored as a disk file can be verified using this command.

2. FORMAT

This message has two formats.

[1] **LOAD:DFC** *a*;**PUMP** [:FN "*b*"[, **CHECKSUM**]]!

[2] **LOAD:DFC** *a*;**PUMP** :FN "*b*", **FU**!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

b = Full pathname that specifies the file containing pumpcode to be downloaded into SCSI HA (DFC) or to be checked for the integrity of its data. The specified file name will be ignored when the downloading is to be done automatically by the disk driver; since the driver will use the information stored in the DFC's UCB record to build the pumpcode file name. The file specified in the UCB record must exist in the directory /dfc, and the file name derived from the UCB record has the format xyz, where *x* is the 4-alphanumeric characters packcode value (i.e., u214) stored in the packcode field of the UCB, *y* is the 2-digit value stored in the issue field of the UCB, and *z* is the 2-digit value stored in the version field of the specified DFC's UCB. An example of a typical pumpcode file name is u21471; the pumpcode version implied by this filename is 7, the pumpcode issue is 1, and the packcode number is u214.

CHECKSUM = When this option is used, the integrity of the pumpcode contained in the specified file will be verified; no pumpcode downloading will occur.

FU = This option is normally used in a software update messages file. It says that if the DFC does not exist or if the DFC is not a UN373 or if the DFC is not active, the command will successfully complete without doing anything to the DFC. This is done to minimize human intervention while making a change to a DFC pumpfile.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a LOAD-DFC output message.

5. REFERENCES

Input Message

LOAD:DFC;RAM

Output Messages

LOAD-DFC, PUMP

REPT-DFC, PUMP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:DFC;RAM
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Load a specified pumpcode file into the small computer system interface (SCSI) disk file controller's (DFC's) random access memory (RAM) area. The message can also be used to verify the integrity of a pump file.

2. FORMAT

LOAD:DFC *a*;**RAM:FN** "*b*"[,**CHECKSUM**]!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

b = Full pathname that specifies the file containing pumpcode to be downloaded into SCSI DFC's RAM.

CHECKSUM = When this option is used the integrity of the pumpcode contained in the specified file will be verified; no downloading will occur.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a LOAD-DFC output message.

5. REFERENCES

Input Message
LOAD:DFC;PUMP

Output Message
LOAD-DFC, RAM

SEE PROPRIETARY NOTICE ON COVER PAGE


```
ID ..... LOAD:MHD-A
GENERIC ..... UNIX RTR R1.5 only
TYPE ..... Input
```

The `OP:DFC-INFO` command can be used to determine the version of the disk file controller (DFC) firmware.

Incorrect use of this input message can degrade system performance and result in disk data mutilation. This input message should not be used without expert technical assistance.

LOAD:MHD *a*; DEFECT:FN "*b*"!

The sector number is optional. The format of each line is as follows:

The diagram illustrates a disk layout with three dimensions:

- Sector Number (decimal):** The innermost dimension, represented by a small box.
- Head Number (decimal):** The middle dimension, represented by a larger box.
- Cylinder Number (decimal):** The outermost dimension, represented by the largest box.

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An empty file (zero length) results in an empty defect table being written to the disk.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the LOAD-MHD, DEFECT output message.

5. REFERENCES

Input Messages

DUMP:MHD;DEF

INIT:MHD;NEW

Output Message

LOAD-MHD, DEF

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID LOAD:MHD-B
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Loads new defect location data onto a moving head disk (MHD). The data is used to map around defective areas on the disk media.

For a storage module device (SMD) MHD, the defect specification file data replaces the Manufacturer's defect table (MFGR).

For a small computer system interface (SCSI) MHD, the defect specification file data is added to the Combined defect table (COMB).

NOTE: For SCSI disks, after new defect blocks are loaded, all the previous information about the bad blocks (defects) become invalid. For example, bad logical block number 3 is not physically the same block after being loaded. It is now a good block number 3. Therefore, only new defect(s) detected since the previous LOAD:MHD message should be included in the specification file used for loading new defects into the "Combined" defect table.

****CAUTION****

Incorrect use of this message can degrade system performance and result in disk data mutilation. This message should not be used without expert technical assistance.

2. FORMAT

LOAD:MHD *a*;DEFECT:FN "*b*"!

3. EXPLANATION OF MESSAGE

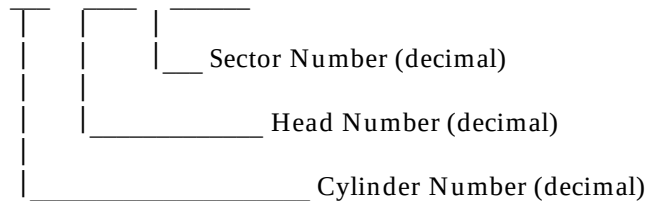
a = MHD member number.

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b = Full pathname of the defect specification file.

- For SMD disks, the file contains one line for each defect. The format of each line is as follows:

CYL HEAD SECTOR



The entries must be created in increasing cylinder number order, and in increasing head number order when on the same cylinder. The sector number is optional.

- For SCSI disks, the file contains one line for each disk block number to be reassigned. The entries must be created in increasing block number order. All the specified block numbers will be re-assigned by the disk drive's embedded controller.
- An empty (zero length) specification file results in an empty defect table being written to the disk.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the LOAD-MHD, DEFECT output message.

5. REFERENCES

Input Messages

DUMP:MHD;DEF

```
INIT:MHD;NEW
```

Output Message

LOAD-MHD, DEF

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID LOAD:MHD;FIRM
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Loads vendor-unique, executable microcode and/or control information into the control memory of a small computer system interface (SCSI) moving head disk (MHD). The downloaded code will be effective after successful completion of this message.

****CAUTION****

This command will format the MHD. All existing data on the disk drive will be destroyed.

2. FORMAT

LOAD:MHD *a*:FIRMWARE, FN "*b*"!

3. EXPLANATION OF MESSAGE

a = MHD member number (0 - 255).
b = Full pathname of the firmware data specification file.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the LOAD-MHD, FIRMWARE output message.

5. REFERENCES

Output Message
LOAD-MHD, FIRMWARE

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID LOAD:PMEM
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Loads a physical byte address with specified data as an immediate operation or as a generic access package (GRASP) breakpoint action.

****CAUTION****

This message overwrites data in the memory of the central processor (CP) or administrative module (AM). It should not be used without expert technical assistance.

2. FORMAT

LOAD:PMEM *a* [, **L** *b*] [**;WORD**]:**D** *c* { / | ! }

3. EXPLANATION OF MESSAGE

- a* = Starting physical byte address of the location in main memory where the load is to be done.
- b* = The length of the load is assumed to be in bytes unless the **WORD** option is used. The range is 1 - 20 bytes or 1 - 5 words. The length must be a multiple of 4 and must agree with the amount of data.
- WORD** = Indication that addresses and lengths are to be interpreted in terms of words. If this option is omitted, addresses and lengths are assumed to be byte values.
- c* = One or more numbers representing data to be loaded. If more than one number is given, each is assumed to represent four bytes of data.

4. SYSTEM RESPONSE

- ?I = Syntax error or one of the following:
 - **INCONSISTENT DATA (L + D)**
Length and amount of data specified do not agree.
 - **RANGE ERROR (L)**
Length too long.
- IP = In progress. The message has been added to the **WHEN** action list.
- PF = Printout follows. Followed by a **LOAD-PMEM** output message.

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RL = Retry later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages

DUMP:PMEM
LOAD:ADDR
OP:UMEM
OP:UMEM;MCH
WHEN:PID
WHEN:UID

Output Messages

LOAD-ADDR
LOAD-PMEM
LOAD-REG
LOAD-UVAR

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ID LOAD:REG
 GENERIC UNIX RTR R1.5, R6.4,
 R21.3, R21.11, R21.15 and
 later
 TYPE Input

1. PURPOSE

Loads a register with specified data as a breakpoint action.

2. FORMAT

LOAD:REG *a* [, **OFF** *b*] [, **L** *c*] [**WORD**]:**D** *d*/

3. EXPLANATION OF MESSAGE

a = The name of the register to be written. Valid register names are as follows:

R0	—	general register R0
R1	—	general register R1
R2	—	general register R2
R3	—	general register R3
R4	—	general register R4
R5	—	general register R5
R6	—	general register R6
R7	—	general register R7
R8	—	general register R8
R9	—	argument pointer (AP)
R10	—	frame pointer (FP)
R11	—	stack pointer (SP)
RTC	—	real time clock
TIMERS	—	timing circuit
SDR	—	store data register
PSW	—	program status word
HSR	—	hardware status register
T0	—	JE group temp subgroup scratch register T0
T1	—	JE group temp subgroup scratch register T1
T2	—	JE group temp subgroup scratch register T2
T3	—	JE group temp subgroup scratch register T3
T4	—	JE group temp subgroup scratch register T4
T5	—	JE group temp subgroup scratch register T5
T6	—	JE group temp subgroup scratch register T6
T7	—	JE group temp subgroup scratch register T7
SCRATCH0	—	JE group temp subgroup scratch register SCRATCH0
SCRATCH1	—	JE group temp subgroup scratch register SCRATCH1

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ATBSAR	— register used by the ATB miss routine to temporarily store the store address register (SAR) contents
ATBSDR	— register used by the ATB miss routine to temporarily store the store data register (SDR) contents
ATBSCR	— register used by the ATB miss routine to temporarily store the store control register (SCR) contents
ATBQ	— register used by the ATB miss routine to temporarily store the q register
ATBPSW	— register used by the ATB miss routine to temporarily store the program status word (PSW) register
ATBBGR	— register used by the ATB miss routine to temporarily store the bi-directional gating register
SBR0	— segment base register SBR0
SBR1	— segment base register SBR1
SBR2	— segment base register SBR2
SBR3	— segment base register SBR3
SBR4	— segment base register SBR4
SBR5	— segment base register SBR5
SBR6	— segment base register SBR6
SBR7	— segment base register SBR7
SYSBASE	— beginning address of UNIX® RTR Operating System tab
TOPIS	— interrupt stack pointer
UINTER	— shadow error register (uint_er) loaded during an error microinterrupt
UINT0	— error microinterrupt handler register UINT0
UINT1	— error microinterrupt handler register UINT1
UINT2	— error microinterrupt handler register UINT2
UINT3	— error microinterrupt handler register UINT3
HG	— reserved register HG
PPR	— pulse point register
BGR	— bi-directional gating register
CDR	— channel data register
IM	— interrupt mask register IM
ISC	— interrupt source register clear
CAR	— channel address register
SSRC	— system status register clear
ERC	— error register clear
ISS	— IS register set
SSRS	— system status register set
HSRBGC	— bi-directional gating control bits of the hardware status register
RNULL	— null register
PA	— program address register

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FP — frame pointer
SP — stack pointer
AP — argument pointer

- b* = Single offset or a list of up to five offsets. Omission of the keywords implies no indirect addressing. Offsets are bytes unless the **WORD** option is used.
- c* = The length of the load, assumed to be bytes unless the **WORD** option is used. The range is 1 - 4 bytes, and the default for an omitted or zero length is 4. The specified length must agree with the data as explained below.
- WORD** = Indicates that lengths are to be interpreted in terms of words. If this option is omitted, lengths are assumed to be byte values.
- d* = The data to be loaded. It is taken to represent the number of bytes of data (up to 4) needed to make the data list correspond to the length *d*.

4. SYSTEM RESPONSE

- ?I = Syntax error, or one of the following:
- INCONSISTENT DATA (L + D)
Length and amount of data specified do not agree.
 - RANGE ERROR (L)
Length too long.
- IP = In progress. The message has been added to the WHEN action list.
- NG = No good.
- BAD REG NAME
- PF = Printout follows. Followed by a LOAD-REG output message.
- RL = Retry later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages
COPY:ADDR
COPY:PID
COPY:REG
COPY:UID
COPY:UVAR
OP:UMEM
OP:UMEM;MCH
WHEN:PID
WHEN:UID

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Output Messages

LOAD-ADDR
LOAD-PMEM
LOAD-REG
LOAD-UVAR

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ID LOAD:UVAR
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Loads generic access package (GRASP) utility variable with specified data as an immediate operation or as an action associated with a breakpoint.

2. FORMAT

LOAD:UVAR *a* [, **L** *b*] [**WORD**]:**D** *c* { / | ! }

3. EXPLANATION OF MESSAGE

- a* = Specifies a GRASP utility variable (1 - 50), in decimal. Utility variable values are reset to 0 at the end of every debugging session.
- b* = The length (L) of the load, assumed to be bytes unless the **WORD** option is used. The range is 1 - 4 bytes, and the default for an omitted or zero length is 4. The specified length must agree with the data as explained below.
- WORD** = Indication that addresses and lengths are to be interpreted in terms of words. If this option is omitted, addresses and lengths are assumed to be byte values.
- c* = The data (D) to be loaded. It is taken to represent the number of bytes of data (up to 4) needed to make the data list correspond to the length *b*.

4. SYSTEM RESPONSE

- ?I = Syntax error or one of the following:
- INCONSISTENT DATA (L + D)
Length and amount of data specified do not agree.
 - RANGE ERROR (L)
Length too long.
 - RANGE ERROR (UVAR)
Invalid utility variable was specified.
- IP = In progress. The message has been added to the WHEN action list.
- PF = Printout follows. Followed by a LOAD-UVAR output message.
- RL = Retry later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

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5. REFERENCES

Input Messages

COPY:ADDR
COPY:PID
COPY:REG
COPY:UID
COPY:UVAR
OP:UMEM
OP:UMEM;MCH
WHEN:PID
WHEN:UID

Output Messages

LOAD-ADDR
LOAD-PMEM
LOAD-REG
LOAD-UVAR

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ID OP:ABD
GENERIC UNIX RTR R21.27 and
later
TYPE Input

1. PURPOSE

Provides a list of all available Alternate Boot Disk units on the switch. Information within the list will identify whether or not the unit may be used as a boot disk and if so, the date when the unit was last updated. An optional format allows the craft to obtain this information for a specific unit.

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.

2. FORMAT

OP:ABD[*a*]!

3. EXPLANATION OF MESSAGE

a = Unit number. See Input/Output Member Numbers Appendix, MEM-NUM-APPC, Table C.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by an OP-ABD output message.

?V = Verb field error.

?I = ID field error.

?D = Data field error.

5. REFERENCES

Appendixes
MEM-NUM-APPC

Output Messages
OP-ABD

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ID OP:ACT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Provides a list of all currently active computer hardware units. An optional format provides a list of all active units of a particular type.

2. FORMAT

OP:ACT[:{a[b][, c d]}]!

3. EXPLANATION OF MESSAGE

- a* = Unit name. Computer unit names are listed in the Input/Output Member Numbers Appendix, MEM-NUM-APPC, Table C.
- b* = Unit number. See Input/Output Member Numbers Appendix, MEM-NUM-APPC, Table C.
- c* = Subunit name, if *a*=CU. Computer control unit (CU) subunit names are listed in the Input/Output Member Numbers Appendix, MEM-NUM-APPD, Table D.
- d* = Subunit number. See Input/Output Member Numbers Appendix, MEM-NUM-APPD, Table D.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by the OP-ACT output message.
- RL = Retry later.
- ?D = Data field error.

5. REFERENCES

Appendixes
MEM-NUM-APPC
MEM-NUM-APPD

Input Message
OP:CFGSTAT

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Output Messages
OP-ACT
OP-CFGSTAT

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ID OP:AUD-A
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Reports the status of one or more audits controlled by the system integrity monitor (SIM). The report may be requested for:

- All audit control records.
- All running audits.
- All members associated with a specific audit.
- Selected members associated with a specific audit.

2. FORMAT

OP:AUD:{ALL|RUN|a[b]}!

3. EXPLANATION OF MESSAGE

- ALL = Specifies all audits controlled by SIM.
- RUN = Restricts the report to include only information for running audits.
- a* = Audit name. Computer audit names are listed in the output Member Numbers Appendix, MEM-NUM-APPB.
- If *a* is specified without *b*, all members of the audit will be reported.
- b* = Member number. See the output Member Numbers Appendix, MEM-NUM-APPB. May be specified as a single number or a list of numbers. See the User Guidelines in this manual for instructions on entering lists of numbers.

4. SYSTEM RESPONSE

See the Audit Appendixes.

5. REFERENCES

Output Appendix(es)
AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD
MEM-NUM-APPB

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Input Message(s)

ALW: AUD

INH: AUD

STOP: AUD

Output Message(s)

OP-AUD

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ID OP:AUD-B
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Reports the status of one or more audits controlled by the system integrity monitor (SIM).
The report may be requested for:

- All audit control records.
- All running audits.
- All members associated with a specific audit.
- Selected members associated with a specific audit.

2. FORMAT

OP:AUD:{ALL|RUN|a[b]|a c, INS "d"}!

3. EXPLANATION OF MESSAGE

- ALL = Specifies all audits controlled by SIM.
- RUN = Restricts the report to include only information for running audits.
- a* = Audit name. Computer audit names are listed in both the input and the output Member Numbers Appendix, MEM-NUM-APPB.
- If *a* is specified without *b*, all members of the audit will be reported.
- b* = Member number. See the input and output Member Numbers Appendix, MEM-NUM-APPB. May be specified as a single number or a list of numbers. See the User Guidelines in this manual for instructions on entering lists of numbers.
- c* = Single member number. See the input and output Member Numbers Appendix, MEM-NUM-APPB.
- d* = Instance name.

4. SYSTEM RESPONSE

See the Audit Appendixes.

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5. REFERENCES

Output Appendix(es)

AUD-APPA

AUD-APPB

AUD-APPC

AUD-APPD

MEM-NUM-APPB

Input Message(s)

ALW:AUD

INH:AUD

STOP:AUD

Output Message(s)

OP-AUD

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ID OP:AUDERR
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Reports the error counts of one or more audits controlled by the system integrity monitor (SIM). The report may be requested for:

- All audits controlled by SIM.
- All members of a specific audit.
- Selected members of a specific audit.
- A specific instance of a specific member of a specific audit.

2. FORMAT

OP:AUDERR:{ALL|a[b]|a c, INS d}!

3. EXPLANATION OF MESSAGE

a = Audit name. Computer audit names are listed in the output Member Numbers Appendix, MEM-NUM-APPB.

If *a* is specified without *b*, all members of the audit will be reported.

b = Member number. See output Member Numbers Appendix, MEM-NUM-APPB. May be specified as a single number or a list of numbers. See the User Guidelines in this manual for instructions on entering a list of numbers.

c = Single member number. See output Member Numbers Appendix, MEM-NUM-APPB.

d = Instance name.

4. SYSTEM RESPONSE

See the Audit Appendixes.

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5. REFERENCES

Output Appendix(es)

AUD-APPA
AUD-APPB
AUD-APPC
AUD-APPD
MEM-NUM-APPB

Input Message(s)

OP:AUD

Output Message(s)

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-AUDERR

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ID OP:CFGSTAT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests output of configuration status information for computer hardware units. This request may optionally be constructed to output the status of a single unit, a list of units with a specified name and maintenance state, a list of all units with a particular maintenance state, or a list of all sub-devices of a specified complex.

2. FORMAT

OP:CFGSTAT[:a][:{b[c][, d e]}]!

3. EXPLANATION OF MESSAGE

a = One of the following maintenance state definitions:

ACT	- Active
STBY	- Standby
INIT	- Initializing
GROW	- Being grown
OOS	- Out-of-service
OFL	- Off-line
UNAV	- Unavailable
UNEQIP	- Unequipped

If specified, then only units in that maintenance state specified will be listed.

b = Unit name. Computer unit names are listed in the Output Member Numbers Appendix, Table C, MEM-NUM-APPC.

c = Unit number. See Output Member Numbers Appendix, Table C, MEM-NUM-APPC.

d = Subunit name if *b*=CU. Computer control unit (CU) subunit names are listed in the Output Member Numbers Appendix, Table D, MEM-NUM-APPD.

e = Subunit number. See Output Member Numbers Appendix, Table D, MEM-NUM-APPD.

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4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-CFGSTAT output message.
RL = Retry later.
?D = Data field error.

5. REFERENCES

Output Appendixes

MEM-NUM-APPC
MEM-NUM-APPD

Input Messages

OP:ACT
OP:GROW
OP:INIT
OP:OFL
OP:OOS
OP:STBY
OP:UNAV
OP:UNEQIP

Output Messages

OP-ACT
OP-CFGSTAT
OP-GROW
OP-INIT
OP-OFL
OP-OOS
OP-STBY
OP-UNAV
OP-UNEQIP

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ID OP:CLK
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Reports the current date and time.

2. FORMAT

OP:CLK!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-CLK output message.

5. REFERENCES

Input Message
SET:CLK

Output Messages
OP-CLK
SET-CLK

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ID OP:CONTROLLER;INFO
GENERIC UNIX RTR R21.37 and
later
TYPE Input

1. PURPOSE

Outputs the following information about the specified controller.

Iop #	= The member number of the IOP containing the controller.
Pcslot	= The number of the slot in the IOP containing the controller.
State	= This field gives the major device status of the controller.
Version	= Microcode version of the controller.
# Devices	= Number of devices under the controller.
U_name	= The name of the unit under the controller.
Unit #	= Member number of the unit under the controller.
Port #	= The port number of the device under the controller.
State	= The major device status of the unit under the controller.
Logical Name	= The logical name from the logdev record associated with the device under the controller.

2. FORMAT

OP:a b;INFO!

3. EXPLANATION OF MESSAGE

<i>a</i>	= Controller name [MTTYC,TTYC,HSDC,SDLC].
<i>b</i>	= Member number of controller.

4. SYSTEM RESPONSE

PF	= Printout follows. Followed by a OP CONTROLLER INFO output message.

5. REFERENCES

Output Message
OP-CONTROLLER, INFO

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ID OP:DEVICE;INFO
GENERIC UNIX RTR R21.37 and
later
TYPE Input

1. PURPOSE

Outputs the following information about the specified device.

Ctlr name & Unit = The name and unit number of the controller for the device.
PackCode = Pack name of the controller for the device.
Port # = The port number of the device on the controller.
State = This field gives the major device status.
Logical Name = The logical name from the logdev record associated with the device.
DTR = Data Terminal Ready.
DCD = Data Carrier Detect.
DSR = Data Set Ready.
CTS = Clear To Send.
RTS = Ready To Send.
Lev 1 = The physical level one layer attached to the device.

2. FORMAT

OP:a b;INFO!

3. EXPLANATION OF MESSAGE

a = Device name [MTTY,ROP,SCC,TTY,HSD,SDL].
b = Member number of device.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a OP DEVICE INFO output message.

5. REFERENCES

Output Message
OP-DEVICE, INFO

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ID OP:DFC;INFO-A
GENERIC UNIX RTR R6.4 only
TYPE Input

1. PURPOSE

Outputs the following information regarding the specified disk file controller (DFC), connected small computer system interface (SCSI) bus (SBUS), and associated moving head disks (MHDs):

- DFC microcode (firmware/pumpcode) version
- SBUS member numbers and their associated MHDs
- Device ID
- Physical port
- Major status
- Equipage
- Number of tracks
- Validity of the volume table of contents (VTOC)
- Unit reserved
- Usability
- Unit essential
- Unit's mate

2. FORMAT

OP:DFC *a*; **INFO!**

3. EXPLANATION OF MESSAGE

a = DFC member number.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-DFC, INFO output message.

5. REFERENCES

Input Messages

OP:DFC;INFO

OP:MHD;INFO

Output Message

OP-DFC, INFO

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ID OP:DFC;INFO-B
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Requests the following information regarding the specified disk file controller (DFC) and equipped sub-devices.

NOTE: The format and content of the output will vary depending on the DFC and equipped sub-device types.

- DFC major status
- DFC microcode (firmware/pumpcode) version
- Small computer system interface (SCSI) bus (SBUS) member number, device ID, and major status
- Sub-device information:
 - Unit name and member number
 - Device type
 - Device ID
 - Physical port
 - Major status
 - Number of tracks
 - Validity of the volume table of contents (VTOC)
 - Usability
 - Unit reserved
 - Unit essential
 - Unit's mate
 - Equipage sizes and compatibility
 - Product identification
 - Device firmware revision level
 - Serial number

2. FORMAT

OP:DFC *a*; **INFO!**

3. EXPLANATION OF MESSAGE

a = DFC member number (0-255).

SEE PROPRIETARY NOTICE ON COVER PAGE

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-DFC, INFO output message.

5. REFERENCES

Input Messages

OP:MHD;INFO

OP:MT;INFO

Output Message

OP-DFC, INFO

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:DFCELOG-A
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Prints and formats REPT:DFCE entries of the disk driver logfile. If no options are specified, all REPT:DFCE entries of type 2 are formatted and printed. Otherwise, the REPT:DFCE entries in the logfile that meet all the selection criteria are printed.

2. FORMAT

OP:DFCELOG:[MHD *a*][,CCODE *b*][,DATE *c*[-*d*]][,TIME *e*[-*f*]]
[,KW "*g*"][,ID *h*][,TYPE *i*][,LIMIT *j*][,CLASS *k*][,DEVICE "*l*"]

3. EXPLANATION OF MESSAGE

The **DATE**, **TIME**, **ID**, and **TYPE** options are matched with information contained in the user control string (UCS) which the spooler adds as a prefix to each message before storing it in the logfile. The UCS is not part of the OP:DFCELOG output. If the **DATE** option is specified in a long format (ten digits), the **TIME** option is illegal. If the **DATE** option is specified in a short format (six digits), and the **TIME** option is given, an intersection between the **DATE** and **TIME** options is taken. The keyword (**KW**) option matches on information contained in the text of the REPT-DFCE message. The unit number in the moving head disk (**MHD**) option is mapped into the **MHD ID** plug number contained in the text of the REPT-DFCE message. The **CCODE** option is matched with the completion code contained in the text of the REPT-DFCE message.

- a* = Moving head disk (MHD) number.
- b* = Completion code (in hex); for example, x'00ff (PDS) or h'00ff (MML).
- c* = Start date in month, day, and year format (mmddyy); for example, 090188 = September 1, 1988; or in month, day, year, hour, and minute format (mmddyyhhmm); for example, 0901881030 = September 1, 1988, at 10:30 a.m.
- d* = End date (mmddyy) or (mmddyyhhmm); for example, 090188 = September 1, 1988 or 0901881030 = September 1, 1988, at 10:30 a.m. Default = start date. If given, this parameter must be in the same format (six or 10 digits) as the start date.
- e* = Start time in hours and minutes (hhmm); for example, 0110 = 1:10 a.m. Default date = current date.
- f* = End time in hours and minutes (hhmm); for example, 1530 = 3:30 p.m. Default = start time. Default date = current date.
- g* = A keyword that appears in all REPT-DFCE entries that are to be reported (up to 39 characters).

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- h* = An optional 4-digit decimal numeral which is used to link an item in a logfile with an entry in another file. The ID is filled in by the process which made the logfile entry; for example, 1234.
- i* = An optional 4-digit decimal numeral which specifies the type of entry on a logfile. The type is filled in by the process which made the logfile entry; for example, 1234. Default = 2222.
- j* = Specifies the maximum number of output entries. Default = 200. Will report output complete if limit is reached.
- k* = Location on which output should be routed:
 T — terminal and receive-only printer (ROP).
 R — ROP.
 Default = R.
- l* = A specific device that output should be routed to (up to nine characters). This device cannot be a logfile.

4. SYSTEM RESPONSE

IP = In Progress.

5. REFERENCES

Output Messages
OP-DFCELOG
REPT-DFCELOG

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ID OP:DFCELOG-B
GENERIC UNIX RTR R6.4 only
TYPE Input

1. PURPOSE

Prints and formats enhanced information report (EIR) entries of the disk driver logfile. See REPT-DFCE and REPT-DFCI output messages for EIR report. If no options are specified, all EIR entries of type 2 are formatted and printed. Otherwise, the EIR entries in the logfile that meet all the selection criteria are printed.

2. FORMAT

OP:DFCELOG:[MHD *a*[, CCODE *b*]][, DATE *c*[-*d*]][, TIME *e*[-*f*]]
[, KW "*g*"][, ID *h*][, TYPE *i*][, LIMIT *j*][, CLASS *k*][, DEVICE "*l*"]

3. EXPLANATION OF MESSAGE

The DATE, TIME, ID, and TYPE options are matched with information contained in the user control string (UCS) which the spooler adds as a prefix to each message before storing it in the logfile. The UCS is not part of the OP:DFCELOG output. If the DATE option is specified in a long format (ten digits), the TIME option is illegal. If the DATE option is specified in a short format (six digits), and the TIME option is given, an intersection between the DATE and TIME options is taken. If the TYPE option is not specified, the OP:DFCELOG message searches for type 2222 in the UCS string. The keyword (KW) option matches on information contained in the text of the EIR message. The unit number in the moving head disk (MHD) option is mapped into the MHD ID plug ID switch number contained in the text of the EIR message. The CCODE option is matched with the completion code contained in the text of the EIR message.

- a* = MHD number.
- b* = Completion code (in hex); for example, x'00ff (PDS) or h'00ff (MML).
- c* = Start date in month, day, and year format (mmddyy); for example, 090197 = September 1, 1997; or in month, day, year, hour, and minute format (mmddyymm); for example, 0901971030 = September 1, 1997, at 10:30 a.m. The size of the small computer system interface (SCSI) EIR completion code is two hex digits. Therefore, only the two least significant digits are meaningful.

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- d* = End date (mmddyy) or (mmddyyhhmm); for example, 090197 = September 1, 1997 or 0901971030 = September 1, 1997, at 10:30 a.m.
- Default = *start date*. If given, this parameter must be in the same format (six or ten digits) as the start date.
- e* = Start time in hours and minutes (hhmm); for example, 0110 = 1:10 a.m. Default date = *current date*.
- f* = End time in hours and minutes (hhmm); for example, 1530 = 3:30 p.m. Default = *start time*. Default date = *current date*.
- g* = A keyword that appears in all EIR entries that are to be reported (up to 39 characters).
- h* = An optional 4-digit decimal numeral which is used to link an item in a logfile with an entry in another file. The ID is filled in by the process which made the logfile entry; for example, 1234.
- i* = An optional four-digit decimal numeral which specifies the type of entry on a logfile. The type is filled in by the process which made the logfile entry; for example, 1234. Default = 2222.
- j* = Specifies the maximum number of output entries. Default = 200. Will report output complete if limit is reached.
- k* = Location on which output should be routed:
- T - terminal and receive-only printer (ROP).
R - ROP.
Default = R.
- l* = A specific device that output should be routed to (up to nine characters). This device cannot be a logfile.

4. SYSTEM RESPONSE

IP = In progress.

5. REFERENCES

Output Messages
OP-DFCELOG
REPT-DFCE
REPT-DFCI

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ID OP:DFCELOG-C
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Prints and formats enhanced information report (EIR) entries of the disk driver logfile. See REPT-DFCE and REPT-DFCI output messages for EIR report. If no options are specified, all EIR entries of type 2 are formatted and printed. Otherwise, the EIR entries in the logfile that meet all the selection criteria are printed.

2. FORMAT

OP:DFCELOG: [{MHD a | MT a} [, CCODE b]][, DATE c[-d]][, TIME e[-f]]
[, KW "g"][, ID h][, TYPE i][, LIMIT j][, CLASS k[, DEVICE "l"]]

3. EXPLANATION OF MESSAGE

The DATE, TIME, ID, and TYPE options are matched with information contained in the user control string (UCS) which the spooler adds as a prefix to each message before storing it in the logfile. The UCS is not part of the OP:DFCELOG output. If the DATE option is specified in a long format (ten digits), the TIME option is illegal. If the DATE option is specified in a short format (six digits), and the TIME option is given, an intersection between the DATE and TIME options is taken. If the TYPE option is not specified, the OP:DFCELOG message searches for type 2222 in the UCS string. The keyword (KW) option matches on information contained in the text of the EIR message. The unit number in the moving head disk (MHD) and magnetic tape (MT) option is mapped into the MHD or MT ID plug or ID switch number contained in the text of the EIR message. The CCODE option is matched with the completion code contained in the text of the EIR message.

- a* = MHD or small computer system interface (SCSI) MT member number.
- b* = Completion code (in hexadecimal); for example, x'00ff (PDS) or h'00ff (MML).

The size of the SCSI EIR completion code is two hexadecimal digits. Therefore, only the two least significant digits are meaningful.
- c* = Start date in month, day, and year format (mmddyy); for example, 090197 = September 1, 1997. Or in month, day, year, hour, and minute format (mmddyyhhmm); for example, 0901971030 = September 1, 1997, at 10:30 a.m.
- d* = End date (mmddyy) or (mmddyyhhmm); for example, 090197 = September 1, 1997. Or 0901971030 = September 1, 1997, at 10:30 a.m. Default = *start date*. If given, this parameter must be in the same format (six or ten digits) as the start date.
- e* = Start time in hours and minutes (hhmm); for example, 0110 = 1:10 a.m. Default time = *current time*.

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- f* = End time in hours and minutes (hhmm); for example, 1530 = 3:30 p.m. Default time = start time.
- g* = A keyword that appears in all EIR entries that are to be reported (up to 39 characters).
- h* = An optional 4-digit decimal numeral which is used to link an item in a logfile with an entry in another file. The ID is filled in by the process which made the logfile entry; for example, 1234.
- i* = An optional four-digit decimal numeral which specifies the type of entry on a logfile. The type is filled in by the process which made the logfile entry; for example, 1234. Default = 2222.
- j* = Specifies the maximum number of output entries. Default = 200. Will report output complete if limit is reached.
- k* = Location to which output should be routed:
 T — Terminal and receive-only printer (ROP)
 R — ROP.
 Default = R.
- l* = A specific device to which output should be routed (up to nine characters). This device cannot be a logfile.

4. SYSTEM RESPONSE

IP = In progress.

5. REFERENCES

Output Messages
OP-DFCELOG
REPT-DFCE
REPT-DFCI

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:DMQ
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests a list of the queue from the computer maintenance input request administrator. This queue contains the status of all requests currently executed by the diagnostic control structure, including restore/remove requests, and the automatic maintenance request sources presently inhibited.

2. FORMAT

OP:DMQ!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by the OP-DMQ output message.
- RL = Retry later. The system is in an overload condition.
- ?I = General syntax error, followed by the parameter position and one of the following reasons:
- EXTRA KEYWORD - Duplicate or extraneous keywords were input.
INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.
- ?D = General syntax error in the data field, followed by the parameter position and the following reason:
- INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.

5. REFERENCES

Input Messages
STOP:DMQ
STP:DMQ

Output Message
OP-DMQ

SEE PROPRIETARY NOTICE ON COVER PAGE

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ID OP:EMERSTAT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests the status of the emergency dump partition on the disk: full or empty. If it is full, information is provided about the data that was written into the partition.

2. FORMAT

OP:EMERSTAT!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-EMERSTAT output message.

5. REFERENCES

Input Messages

CLR:EMERDMP

COPY:T;EMERDMP

Output Messages

OP-EMERSTAT

REPT-EMER, DUMP

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:ERRCHK-A
GENERIC UNIX RTR R1.5 and R6.4
TYPE Input

1. PURPOSE

Requests a list of all inhibited 3B20D computer error conditions, including ERRINT, ERRSRC, HDWCHK, and SFTCHK.

2. FORMAT

OP:ERRCHK!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-ERRCHK output message.
?I = Identification field error.

5. REFERENCES

Input Messages
ALW:ERRCHK
INH:ERRCHK

Output Messages
ALW-ERRCHK
INH-ERRCHK
OP-ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:ERRCHK-B
GENERIC UNIX RTR R21.3, 21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Requests a list of all inhibited computer error conditions, including EAIINT, ERRINT, ERRSRC, HDWCHK, and SFTCHK.

NOTE: The 3B20D computer control units (CUs) do not have emergency action interface (EAI) error interrupts (EAIINT).

2. FORMAT

OP:ERRCHK!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the OP-ERRCHK output message.
?I = Identification field error.

5. REFERENCES

Input Messages
ALW:ERRCHK
INH:ERRCHK

Output Messages
ALW-ERRCHK
INH-ERRCHK
OP-ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:FNAME
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Reports the full pathname of a file in a mounted file system. This command, used to analyze data produced by the FSBLK and FSLINK file system audits, provides pathnames based on the entry of inode or block numbers.

2. FORMAT

OP:FNAME:FN "a", {INODE|BLOCK} b[-c]!

3. EXPLANATION OF MESSAGE

- a* = The full pathname of the file system. See User Guidelines for description of pathnames. Note that quotation marks are required.
- b* = Inode or block number; or the lower limit of a range (0-546048) of inode or block numbers.

NOTE: If an INODE number is specified, the minimum value of *b* is two.

- c* = The upper limit of a range of inode or block number of a range (0-546048).

4. SYSTEM RESPONSE

Entry of this message may produce one or more of the following system responses. RL responses will only appear if the input message catalog is not active.

SEE PROPRIETARY NOTICE ON COVER PAGE

Response	Message	Meaning
?D	MISSING KEYWORD 1	FN must appear after FNAME.
?D	MISSING KEYWORD 2	Either INODE or BLOCK must be entered.
?D	INVALID KEYWORD 1	FN must be the first keyword.
?D	INVALID KEYWORD 2	INODE or BLOCK must be the second keyword.
?D	RANGE ERROR 1, <i>a</i>	File system requested does not exist. <i>a</i> is the value entered.
?D	INVALID CHARACTER 1	The first or only range value is not an integer.
?D	INVALID CHARACTER 2	The last range value is not an integer.
?D	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.
?D	RANGE ERROR 5	The greater or only BLOCK value is larger than the maximum allowed in the file system.
?D	RANGE ERROR 6	The lower or only BLOCK value is less than the minimum allowed in the file system.
?D	MISSING DATA 1	No file system name given.
?D	MISSING DATA 2	No inode or block number given.
?D	INCONSISTENT DATA 1	The greater value must be equal to or larger than the lower value in the range.
RL	MOUNT TABLE ERROR	Retry later. Unable to obtain the mount table from the file manager.
RL	CANNOT CHANGE DIRECTORY TO /dev	Retry later. Unable to change working directory to /dev.

SEE PROPRIETARY NOTICE ON COVER PAGE

Response	Message	Meaning
RL	CANNOT OPEN FILE SYSTEM	Retry later. Cannot open the file system at its mount point.
RL	CANNOT SEEK TO SUPERBLOCK	Retry later. Unable to seek to the file system's superblock.
RL	CANNOT READ SUPERBLOCK	Retry later. Unable to read the superblock for the file system.
RL	CANNOT FIND FILE SYSTEM	Retry later. Unable to find the first directory of the mounted file system.

5. REFERENCES

Input Messages

AUD:FSBLK

AUD:FSLNK

Output Messages

AUD-FSBLK

AUD-FSLNK

OP-FNAME

Practice 254-341-100 *File System - Description*

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*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:G;READLOG
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests output of the 3B20D computer system update event log. This is used if problems occur while updating the system to determine the current state of affairs.

2. FORMAT

OP:GEN;READLOG!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.
PF = Printout follows. Followed by the OP-GEN,READLOG output message.
?D = Error in the identification field.

5. REFERENCES

Input Messages

UPD:G;BACKOUT
UPD:G;COMMIT
UPD:G;ENTER
UPD:G;PROCEED
UPD:G;RESTORE

Output Messages

OP-G, READLOG
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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:GROW
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Provides a list of all computer hardware units currently in the growth maintenance state.
This format provides a list of all growth units of a particular type.

2. FORMAT

OP:GROW[:{a[b][,c d]}]!

3. EXPLANATION OF MESSAGE

- a* = Unit name. Unit names are listed in the Input/Output Member Numbers Appendix, MEM-NUM-APPC, Table C.
- b* = Unit number. See Input/Output Member Numbers Appendix, MEM-NUM-APPC, Table C.
- c* = Subunit name, if *a*=CU. Control unit (CU) subunit names are listed in the Input/Output Member Numbers Appendix, MEM-NUM-APPD, Table D.
- d* = Subunit number. See Input/Output Member Numbers Appendix, MEM-NUM-APPD, Table D.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by the OP-GROW output message.
- RL = Retry later.
- ?D = Data field error.

5. REFERENCES

Appendixes
MEM-NUM-APPC
MEM-NUM-APPD

Input Message
OP:CFGSTAT

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
OP-CFGSTAT
OP-GROW

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 Input

1. PURPOSE

Provides a list of all currently initializing computer hardware units. This format provides a list of all initializing units of a particular type.

2. FORMAT

OP:INIT[:{a[b][,c d]}]!

3. EXPLANATION OF MESSAGE

- a* = Unit name. Unit names are listed in the Input/Output Member Numbers Appendix, Table C, MEM-NUM-APPC.
- b* = Unit number. See the Input/Output Member Numbers Appendix, Table C, MEM-NUM-APPC.
- c* = Subunit name, if *a*=CU. Control unit (CU) subunit names are listed in the Input/Output Member Numbers Appendix, Table D, MEM-NUM-APPD.
- d* = Allowed member numbers. See the Input/Output Member Numbers Appendix, Table D, MEM-NUM-APPD.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by the OP-INIT output message.
- RL = Retry later.
- ?D = Data filed error.

5. REFERENCES

Input Appendixes
MEM-NUM-APPC
MEM-NUM-APPD

Input Message
OP:CFGSTAT

Output Messages
OP-CFGSTAT
OP-INIT

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 Input

1. PURPOSE

Reports the current options set for the input/output processor (IOP) driver messages.

NOTE: If none of the options is specified, this message will report all of the severity level option settings, the handler identification option setting, and the class option settings that are turned on, and whether MSGSAVE is ON or OFF.

2. FORMAT

OP: IODRV[; [LVL][, ID][, CLASS][, MSGSAVE]]!

3. EXPLANATION OF MESSAGE

LVL = Report the severity level option setting.
ID = Report the handler identification option setting.
CLASS = Report the class option setting.
MSGSAVE = Report whether or not IOP error messages are being saved in the IODRVLOG logfile.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.
PF = Printout follows. Followed by the OP- IODRV output message.

5. REFERENCES

Output Message
OP- IODRV

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:IOP;INFO
GENERIC UNIX RTR R21.27 and
later
TYPE Input

1. PURPOSE

Outputs the following information about the specified IOP.

U_name = The name of the unit represented by this ucb.
Unit # = A ucb marked unique is one whose corresponding physical device
has a unique name.
U_mv = Diagnostics use it to determine the pack type.
State = This field gives the major device status.
PackCode = Pack name.
Versions = Microcode version.
Ver_From = Microcode version is read from, either ECD or RAM.

2. FORMAT

OP:IOP a;INFO!

3. EXPLANATION OF MESSAGE

a = IOP member number.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a OP IOP INFO output message.

5. REFERENCES

Output Message
OP-IOP, INFO

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:LOG-A
GENERIC UNIX RTR R1.5 and R6.4
TYPE Input

1. PURPOSE

Requests that the selected contents of a logfile be printed. The default maximum number of entries printed is 200, unless the **LIMIT** option is specified. If the logfile is the only criterion entered, the first 200 entries of the logfile are printed. Otherwise, only the entries in the logfile that meet all of the selection criteria are printed. (Unless the **LIMIT** option is specified as one of the criteria, the first 200 entries that match all the selection criteria are printed).

The entire output report is always routed to the ROP. The amount of data output routed to the terminal is determined by the command line options selected and the size of the data output. When the **CLASS** option is set to **T**, the entire output report is routed to the terminal as well as the ROP. When the **CLASS** option is set to **R**, the entire output report is routed to the ROP, and only the **COMPLETED** message is routed to the terminal.

NOTE: The **COMPLETED** message also contains the last non-full segment, if it exists, of the output report. In other words, if the data output fills *n* complete segments (where *n* is an integer greater than or equal to 1), then the **COMPLETED** message (and no output data) is printed at the terminal.

When the **DEVICE** option is set to a valid device, the entire output report is routed to the specified device as well as the ROP with nothing being output to the terminal.

NOTE: Having a large amount of data output to a terminal may take several minutes to complete and could give the appearance that subsequent input commands are not being processed. Output from the subsequent commands will be printed once output from **OP:LOG** has completed.

2. FORMAT

OP:LOG;LG "a"[:[DATE** *b*[-*c*],][**TIME** *d*[-*e*],][**KW** "*f*",][**ID** *g*,][**TYPE** *h*,]
[**LIMIT** *i*,][**CLASS** *j*,][**DEVICE** "*k*"]]**!

3. EXPLANATION OF MESSAGE

The **DATE**, **TIME**, **ID**, and **TYPE** options are matched with information contained in the user control string which the spooler adds as a prefix to each message before storing it in the logfile. The user control string is not part of the **OP:LOG** output. The keyword (**KW**) option matches on the text of each message.

- a* = Name of the logfile. Any valid computer logfile name; for example, ULARP.
- b* = Start date (month/day/year or month/day/year/hour/minute format). For example, 100297 = October 2, 1997; 0102981000 = January 2, 1998, at 10:00 a.m.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c* = End date (month/day/year format). For example, 100297 = October 2, 1997. Default = start date. If given, this parameter must be in the same format (six or ten digits) as the *start date*.
- d* = Start time (hours and minutes). For example, 0110 = 1:10 a.m.
- e* = End time (hours and minutes). For example, 1530 = 3:30 p.m. Default = start time.
- f* = A keyword that appears in all entries that are to be reported.
- g* = An optional four-digit decimal number that is used to link an item in a logfile with an entry in another file. The ID is filled in by the process that made the logfile entry; for example, 1234, 0017, 0003.
- h* = An optional four-digit decimal number which specifies the type of entry in a logfile. The TYPE is filled in by the process that made the logfile entry; for example, 1234, 0945, 0005.
- i* = The maximum number of output entries needed. Default = 200. OP:LOG will report output complete if this limit is reached.
- j* = Location to which output should be routed:
R — Receive-only printer (default).
T — Terminal and receive-only printer.
- k* = A specific device to which output should be routed. This device should not be a logfile device.

4. SYSTEM RESPONSE

- IP = In progress.
- RL = Retry later. Could not attach to the equipment configuration database (ECD).

5. REFERENCES

Input Message
DEL:LOG

Output Messages
DEL-LOG
OP-LOG

SEE PROPRIETARY NOTICE ON COVER PAGE

Practice 254-341-230 *Craft Interface Software Subsystem Description*
Lucent Technologies 3B20D Computer

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

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ID OP:LOG-B
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Requests the selected contents of a logfile be printed. The default maximum number of entries printed is 200, unless the **LIMIT** option is specified. If the logfile is the only criterion entered, the first 200 entries of the logfile are printed. Otherwise, only the entries in the logfile that meet all of the selection criteria are printed. (Unless the **LIMIT** option is specified as one of the criteria, the first 200 entries that match all the selection criteria are printed).

The entire output report is always routed to the ROP. The amount of data output routed to the terminal is determined by the command line options selected and the size of the data output. When the **CLASS** option is set to **T**, the entire output report is routed to the terminal as well as the ROP. When the **CLASS** option is set to **R**, the entire output report is routed to the ROP, and only the **COMPLETED** message is routed to the terminal.

NOTE: The **COMPLETED** message also contains the last non-full segment, if it exists, of the output report. In other words, if the data output fills n complete segments (where n is an integer greater than or equal to 1), then the **COMPLETED** message (and no output data) is printed at the terminal.

When the **DEVICE** option is set to a valid device, the entire output report is routed to the specified device as well as the ROP with nothing being output to the terminal.

NOTE: Having a large amount of data output to a terminal may take several minutes to complete and could give the appearance that subsequent input commands are not being processed. Output from the subsequent commands will be printed once output from **OP:LOG** has completed.

2. FORMAT

**OP:LOG;LG "a"[:[DATE b[-c],][TIME d[-e],][KW "f",][ID g,][TYPE h,]
[LIMIT i,][, CLASS j],DEVICE "k"][, FN "l"]]**!

3. EXPLANATION OF MESSAGE

The **DATE**, **TIME**, **ID**, and **TYPE** options are matched with information contained in the user control string which the spooler adds as a prefix to each message before storing it in

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the logfile. The user control string is not part of the OP:LOG output. The keyword (KW) option matches on the text of each message.

- a* = Name of the logfile. Any valid logfile name; for example, ULARP.
- b* = Start date as six-digit format (mmddyy) or ten-digit format (mmddyyhhmm). For example, 100297 = October 2, 1997; 0102981000 = January 2, 1998, at 10:00 a.m. Default = *first date in logfile*.
- c* = End date as six-digit format (mmddyy) or ten-digit format (mmddyyhhmm). For example, 100297 = October 2, 1997. 0103980800 = January 3, 1998, at 8:00 a.m. Default = *start date* if specified; otherwise, last date in logfile.
- d* = Start time in hour and minutes format (hhmm). For example, 0110 = 1:10 a.m. Default = 0000.
- e* = End time in hours and minutes (hhmm). For example, 1530 = 3:30 p.m. Default = *start time*. Upper boundary = 2359.

NOTE: When the six-digit date range is used in conjunction with a time range, the log entries will be output from start time to end time for each day in the range of start date through end date.

The ten-digit date allows the user to output log entries from the start time on start date until end time on end date. Specifying the start time (variable *d*) and end time (variable *e*) with the ten-digit date range is invalid.

- f* = A keyword that appears in all entries that are to be reported.
- g* = An optional decimal number (0 - 9999) that is used to link an item in a logfile with an entry in another file. The ID is filled in by the process that made the logfile entry.
- h* = An optional decimal number (0 - 9999) which specifies the type of entry in a logfile. The TYPE is filled in by the process that made the logfile entry.
- i* = The maximum number of output entries needed. Default = 200. OP:LOG will report output complete if this limit is reached.
- j* = Location to which output should be routed:
 - R — Receive-only printer (default).
 - T — Terminal and receive-only printer.
- k* = A specific device to which output should be routed. This device should not be a logfile device.
- l* = The name of a file to be created in /fmt to which logfile output should be routed. This option will direct logfile output to the specified file; all status messages are routed to *j* or *k* (depending on other options used) and the logfile.

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The specified filename must not exceed 14 characters, must not contain parent or current directory references (/../ or /./), and must not be an existing file in /fmt.

4. SYSTEM RESPONSE

IP = In progress.
RL = Retry later. Could not attach to the equipment configuration database (ECD).

5. REFERENCES

Input Message
DEL : LOG

Output Messages
DEL - LOG
OP - LOG

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ID OP:MEMERRS
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Reports an interpreted version of the selected MEMLOG entries. The MEMLOG file entries with the specified date(s) will be output in a tabulated format.

2. FORMAT

OP:MEMERRS:DATE *a*[-*b*]!

3. EXPLANATION OF MESSAGE

- a* = Starting date in the form (yy|mmyy|mmddyy) where yy is year number, mm is month number, and dd is day number. For example 0594 = May 1994, 94 = 1994, or 052794 = May 27, 1994.
- b* = Ending date in the form (yy|mmyy|mmddyy). If there is no date given for the ending date, only those entries with the starting date will be output.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by the OP-MEMERRS output message.
- RL = Retry later. Unable to open output file.

NG - NOT AVAILABLE ON HW PLATFORM = No Good. Interpreted version of MEMLOG entries are not available on 3B21D CU hardware platform.

5. REFERENCES

Output Messages
OP-MEMERRS
REPT-CU

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ID OP:MHD;INFO-A
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Requests the following information regarding the specified moving head disk (MHD):

- Unit name and number of disk file controller (DFC)
- Device ID
- Physical port
- Major status
- Equipage
- Number of tracks
- Validity of the volume table of contents (VTOC)
- Unit reserved
- Unit essential
- Unit's mate.

2. FORMAT

OP:MHD *a*;INFO!

3. EXPLANATION OF MESSAGE

a = MHD member number.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-MHD, INFO output message.

5. REFERENCES

Input Messages

OP:DFC;INFO

OP:MHD;INFO

Output Message

OP-MHD, INFO

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ID OP:MHD;INFO-B
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Requests the following information regarding the specified moving head disk (MHD):

- Unit name and number of disk file controller (DFC)
- Unit name and number of the small computer system interface (SCSI) bus (SBUS) on which the specified MHD is connected
- Device ID
- Physical port
- Major status
- Equipage
- Number of tracks
- Validity of the volume table of contents (VTOC)
- Unit reserved
- Usability
- Unit essential
- Unit's mate

2. FORMAT

OP:MHD *a*:INFO!

3. EXPLANATION OF MESSAGE

a = MHD member number.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-MHD, INFO output message.

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5. REFERENCES

Input Messages

OP:DFC;INFO

OP:MHD;INFO

Output Message

OP-MHD, INFO

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ID OP:MT;INFO
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Requests the following information regarding the specified small computer system interface (SCSI) magnetic tape (MT) device.

- Disk file controller (DFC) member number and major status
- DFC microcode (firmware/pumpcode) version
- SCSI bus (SBUS) member number, device ID, and major status
- Unit name and member number
- Device type
- Device ID
- Major status
- Unit reserved
- Device firmware revision level

2. FORMAT

OP:MT *a*;INFO!

3. EXPLANATION OF MESSAGE

a = MT member number (0-255).

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-MT, INFO output message.

5. REFERENCES

Input Message
OP:DFC;INFO

Output Message
OP-MT, INFO

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ID OP:OFL
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests a list of all currently off-line computer hardware units. This format provides a list of all off-line units of a particular type.

2. FORMAT

OP:OFL[: {*a* [*b*] [, *c* *d*]}]!

3. EXPLANATION OF MESSAGE

- a* = Unit name. Unit names are listed in the Input/Output Member Numbers Appendix, MEM-NUM-APPC, Table C.
- b* = Unit number. See Input/Output Member Numbers Appendix, MEM-NUM-APPC, Table C.
- c* = Subunit name, if *a*=CU. Control unit (CU) subunit names are listed in the Input/Output Member Numbers Appendix, MEM-NUM-APPD, Table D.
- d* = Subunit number. See Input/Output Member Numbers Appendix, MEM-NUM-APPD, Table D.

4. SYSTEM RESPONSE

- ?D = Data field error.
- PF = Printout follows. Followed by the OP-OFL output message.
- RL = Retry later.

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5. REFERENCES

Appendixes

MEM-NUM-APPC

MEM-NUM-APPD

Input Message

OP:CFGSTAT

Output Messages

OP-CFGSTAT

OP-OFL

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ID OP:OMDB-A
GENERIC UNIX RTR R1.5, R6.4 and
R21.3
TYPE Input

1. PURPOSE

Output the message text, message class, and alarm level from an OMDB entry for the given key or keys.

2. FORMAT

OP:OMDB;*a* ;KEY *b*!

3. EXPLANATION OF MESSAGE

a = Copy of output message data base to access:

ACT — Active OMDB.

DISK — OMDB disk file.

b = Message key (or list of keys) in the range 0 to 16377.

4. SYSTEM RESPONSE

NG = No good. Includes one of the following:

— INVALID KEY

A message key is not within the valid range.

— INVALID OMDB COPY

DISK or ACT not entered for OMDB copy to access.

— SYNTAX ERROR

Command is not in the correct format.

— TOO MANY KEYS

Maximum of 32 keys are allowed per command.

PF = Printout follows. Followed by the OP-OMDB output message.

5. REFERENCES

Input Message(s)

ACTV:OMDB

UPD:OMDB

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Output Message(s)
OP-OMDB

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ID OP:OMDB-B
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Output the message text, message class, and alarm level from an OMDB entry for the given key or keys.

2. FORMAT

OP:OMDB;*a* ;KEY=*b*!

3. EXPLANATION OF MESSAGE

a = Copy of output message data base to access:

ACT — Active OMDB.

DISK — OMDB disk file.

b = Message key (or list of keys) in the range 0 to 16377.

4. SYSTEM RESPONSE

NG = No good. Includes one of the following:

— INVALID KEY

A message key is not within the valid range.

— INVALID OMDB COPY

DISK or ACT not entered for OMDB copy to access.

— SYNTAX ERROR

Command is not in the correct format.

— TOO MANY KEYS

Maximum of 32 keys are allowed per command.

PF = Printout follows. Followed by the OP-OMDB output message.

5. REFERENCES

Input Message(s)

ACTV:OMDB

UPD:OMDB

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Output Message(s)
OP-OMDB

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ID OP:OOS
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests a list of all currently out-of-service (OOS) computer hardware units. This format provides a list of all out-of-service units of a particular type.

2. FORMAT

OP:OOS[:{*a* [*b*][, *c* *d*]}]!

3. EXPLANATION OF MESSAGE

- a* = Unit name. Unit names are listed in the Input/Output Member Numbers Appendix, MEM-NUM-APPC, Table C.
- b* = Unit number. See Input/Output Member Numbers Appendix, MEM-NUM-APPC, Table C.
- c* = Subunit name, if *a*=CU. Control unit (CU) subunit names are listed in the Input/Output Member Numbers Appendix, MEM-NUM-APPD, Table D.
- d* = Subunit number. See Input/Output Member Numbers Appendix, MEM-NUM-APPD, Table D.

4. SYSTEM RESPONSE

- ?D = Data field error.
- PF = Printout follows. Followed by the OP-OOS output message.
- RL = Retry later.
- ?D = Data field error.

5. REFERENCES

Appendixes
MEM-NUM-APPC
MEM-NUM-APPD

Input Message
OP:CFGSTAT

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Output Messages
OP-CFGSTAT
OP-OOS

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ID OP:PMCR
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests the various plant measurements common reports, detailing system performance statistics. By default, the data collected for the previous hour is reported every hour and the data collected for the previous day is reported at midnight.

2. FORMAT

- [1] **OP:PMCR:TYPE STAT** [, **HOURLY** | , **DAILY** *a* | , **NOHOURLY** | , **NODAILY**]!
- [2] **OP:PMCR:TYPE RET**, **INTVL** *b* , **FORM** *c* !
- [3] **OP:PMCR:TYPE DEM**, **FORM** *c* !

3. EXPLANATION OF MESSAGE

Each of the three formats (for STAT, RET, and DEM) has its own distinct purpose:

- STAT** = Status report. Indicates whether the hourly and/or daily scheduled reports will be output. This form is also used to enable/disable printing of the daily/hourly reports, or to change the hour when the daily report is output.
- RET** = Retained report. Outputs a report of the previous daily or hourly data, depending on the interval entered. 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.
- DEM** = Demand report. Outputs a report of up-to-the-hour data collected for the next daily report (as determined by the STAT format - default = midnight). Demand reports should not be attempted until at least one hour after a valid scheduled daily report has been generated.
- HOURLY** = Set the option for hourly reports to be output every hour. Use only with STAT form.
 - a* = The hour *a*, 0-23, where default is 0 (midnight). Use only with STAT format.
- NOHOURLY** = Sets the option for hourly reports not to be output. Use only with STAT format.
- NODAILY** = Sets the option for daily reports not to be output. Use only with STAT format.

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- b* = Report interval. *b* values are **HOURLY** or **DAILY**. Used only with RET format, **HOURLY** outputs the data from the previous hour; **DAILY** from the previous day.
- c* = Report form. *c* values are 1 or 2, where form 1 outputs system and equipment performance and 2 outputs more detailed equipment performance.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by the REPT-OP, PMCR output message.

5. REFERENCES

Output Messages
OP-PMCR
REPT-OP, PMCR

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ID OP:REXINH-A
GENERIC UNIX RTR R1.5 and R6.4
TYPE Input

1. PURPOSE

Outputs a list of computer hardware communities that have routine exercises inhibited by means of the INH:REX input message. Applications may add additional hardware communities which may be reported by this command.

Routine exercises may also be inhibited by using the INH:DMQ command. This may be verified by using the OP:DMQ input message.

2. FORMAT

OP:REXINH!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-REXINH output message.
RL = Retry later. Cannot read ECD UCB records.

5. REFERENCES

Input Messages

ALW:DMQ
ALW:REX
INH:DMQ
INH:REX
OP:DMQ

Output Messages

OP-DMQ
OP-REXINH

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ID OP:REXINH-B
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Requests a list of routine exercise inhibits.

Reports computer hardware communities and application hardware communities that have routine exercises temporarily inhibited by means of the INH:REX input message, and reports if routine exercises are temporarily inhibited by means of the INH:DMQ input message. The specific DMQ inhibits may be verified by using the OP:DMQ input message.

With the PERM option, reports computer hardware communities and application hardware communities that have routine exercises permanently inhibited by a field in the ECD.

2. FORMAT

OP:REXINH[:PERM]!

3. EXPLANATION OF MESSAGE

PERM = Requests a list of permanent routine exercise inhibits.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-REXINH output message.

RL = Retry later. Cannot read ECD UCB records.

5. REFERENCES

Input Messages

ALW:DMQ
ALW:REX
INH:DMQ
INH:REX
OP:DMQ

Output Messages

OP-DMQ
OP-REXINH

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ID OP:SCSD-A
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Requests the inhibit status and the state of scanner and signal distributor (SCSD) scan points. This can be a logical group of scan points or all the scan points on an SCSD. Scan points can be identified by physical location using the SCSD unit number or by the logical group name. If a logical group is duplexed, the states of both logical groups (dupid 0 and dupid 1) are output.

2. FORMAT

This message has two formats:

[1] **OP:SCSD;UNIT** *a*!

[2] **OP:SCSD;GRPN** *b*!

3. EXPLANATION OF MESSAGE

a = Member number of the SCSD unit (0-16).

b = Name of the logical SCSD group. Logical scan groups are:

FANACU0
FANACU1
PDF0
PRSWCU0
PRSWCU1
PRSWDFC0
PRSWDFC1
PRSWIOP0
PRSWIOP1
PRSWMHD0
PRSWMHD1
PTSWMCR
PTSWROP

The imcatlg will not recognize any other logical scan groups. If an unrecognized logical scan group is used in the input message, the EXC:UCL command must be entered immediately following the message. This will cause the Craft Shell to accept this input message, thereby allowing the SCSD software to process and execute it.

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4. SYSTEM RESPONSE

NG = No good. SCSD administrator process is not active; no communication with SCSD points is possible.

PF = Printout follows. Followed by the OP-SCSD output message.

RL = Retry later.

5. REFERENCES

Input Messages

ALW: SCSD

INH: SCSD

EXC: UCL

Output Messages

OP-SCSD

RCVRY-SCSDC

REPT-SCSDC

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ID OP:SCSD-B
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Requests the inhibit status and the state of scanner and signal distributor (SCSD) scan points. This can be a logical group of scan points or all the scan points on an SCSD. Scan points can be identified by physical location using the SCSD unit number or by the logical group name. If a logical group is duplexed, the states of both logical groups (dupid 0 and dupid 1) are output.

2. FORMAT

This message has two formats.

[1] **OP:SCSD;UNIT** *a*!

[2] **OP:SCSD;GRPN** "*b*"!

3. EXPLANATION OF MESSAGE

a = Member number of the SCSD unit (0-16).
b = Name of the logical SCSD group. Examples are:

FANACU0
FANACU1
PDF0
PRSWCU0
PRSWCU1
PRSWDFC0
PRSWDFC1
PRSWIOP0
PRSWIOP1
PRSWMHD0
PRSWMHD1
PTSWMCR
PTSWROP

4. SYSTEM RESPONSE

NG = No good. SCSD administrator process is not active; no communication with SCSD points is possible.
PF = Printout follows. Followed by the OP-SCSD output message.
RL = Retry later.

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5. REFERENCES

Input Messages

ALW:SCSD

INH:SCSD

Output Messages

OP-SCSD

RCVRY-SCSDC

REPT-SCSDC

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ID OP:ST-DISKUSE
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests the number of blocks contained in all files and directories within each specified directory or filename. This process is repeated for all directories that descend from the specified directories. The block count includes the indirect blocks of the file.

2. FORMAT

OP:STATUS:DISKUSE, FN "a", {TOTAL|EACH}[, OPL b]!

3. EXPLANATION OF MESSAGE

a = Pathname of the file. See the User Guidelines section of this manual for definitions of pathname, directory, and file.

NOTE: The default for **TOTAL** and **EACH** is to generate an entry for each directory only. One of these variables must be used when a file is specified as variable *a*.

TOTAL = Print the total number of blocks in the directory or file.

EACH = Print an entry for each file.

b = Number of segments to be output (specified in decimal). Default = 10 segments. Each segment has a maximum size of 1000 bytes or 20 lines. This option is not needed when **TOTAL** is used.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-STATUS,DISKUSE output message.

5. REFERENCES

Input Message(s)
OP:ST;LISTDIR
OP:ST;SUM

Output Message(s)
OP-ST,DISKUSE
OP-ST,LISTDIR
OP-ST,SUM

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ID OP:ST;FILESYS
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests information about all of the mounted file systems.

2. FORMAT

OP:STATUS:FILESYS!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-STATUS,FILESYS output message.

5. REFERENCES

Input Messages
ALW:F;MOUNT
INH:F;UMOUNT

Output Message
OP-ST,FILESYS

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ID OP:ST;FRDISK
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests the number of free blocks and free inodes available for online file systems. If the file system is unspecified, the free space on all the mounted file systems is listed.

2. FORMAT

OP:STATUS:FREEDISK[,FN "a"]!

3. EXPLANATION OF MESSAGE

a = Full pathname of the file system. See User Guidelines for definitions of pathname and file.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-STATUS,FREEDISK output message.

5. REFERENCES

Input Messages

ALW:F;MOUNT

OP:ST;FILESYS

Output Messages

OP-ST,FILESYS

OP-ST,FREEDISK

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ID OP:ST;LISTDIR
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests the contents of a specific directory or file.

2. FORMAT

OP:STATUS:LISTDIR, FN "a"[, OPL b]!

3. EXPLANATION OF MESSAGE

- a* = Pathname of the directory or file. See User Guidelines for definitions of pathname, directory and file.
- b* = Number of segments to be output, specified in decimal. Default = 10 segments; maximum = 999. Each segment has a maximum size of 1000 bytes or 20 lines.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-STATUS, LISTDIR output message.

5. REFERENCES

Input Message
ALW:FILESYS;ACCESS

Output Message
OP-STATUS, LISTDIR

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ID OP:ST;PORTS
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests the status of each connected computer message port.

2. FORMAT

OP:STATUS:PORTS!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-STATUS,PORTS output message.

5. REFERENCES

Output Message
OP-STATUS,PORTS

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ID OP:ST;PROC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests the status of active processes by specific class.

2. FORMAT

OP:STATUS:PROCESS, (ALLTERMS|ALLKERNS|ALL|PATH)[, OPL a]!

3. EXPLANATION OF MESSAGE

- ALLTERMS** = Report detailed operational status of all processes associated with terminals. Pathname lengths are consistent with the PS(2G) command using the -l option.
- ALLKERNS** = Report detailed operational status of all kernel processes. Also prints the parent pid.
- ALL** = Same as ALLTERMS, plus process group leaders; that is, all non-kernel level processes. Pathname lengths are consistent with the PS(2G) command using the -l option.
- PATH** = Report full pathnames and invoking process arguments with process identifiers and possible terminal suffixes of all non-kernel level processes. Also prints the parent pid.
- a** = Number of segments to be output, specified in decimal. Default = 10 segments; maximum = 999. Each segment has a maximum size of 1000 bytes or approximately 12 lines.

4. SYSTEM RESPONSE

- PF** = Printout follows. Followed by the OP-STATUS,PROCESS output message.

5. REFERENCES

Input Messages
STOP:E;ANY
STOP:E;USER

Output Message
OP-ST,PROCESS

SEE PROPRIETARY NOTICE ON COVER PAGE

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:ST;SUM
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests a 16-bit checksum for a specified file, and prints the number of blocks in the file. This message is typically used to look for bad spots on a disk or to confirm that a file sent via a transmission line has been completely received.

2. FORMAT

OP:STATUS:SUM, FN "*a*"[, ALT]!

3. EXPLANATION OF MESSAGE

a = Pathname of the file. See User Guidelines section for definitions of pathname and file.

ALT = Use the alternate check sum algorithm.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-STATUS, SUM output message.

5. REFERENCES

Input Messages

OP:ST;DISKUSE
OP:ST;LISTDIR

Output Messages

OP-ST, DISKUSE
OP-ST, LISTDIR
OP-ST, SUM

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:STBY
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests a list of all standby computer hardware units. This format provides a list of all standby units of a particular type.

2. FORMAT

OP:STBY[:{*a* [*b*][, *c* *d*]}]!

3. EXPLANATION OF MESSAGE

- a* = Unit name. Unit names are listed in the Input/Output Member Numbers Appendix, MEM-NUM-APPC, Table C.
- b* = Unit number. See Input/Output Member Numbers Appendix, MEM-NUM-APPC, Table C.
- c* = Subunit name, if *a*=CU. Control unit (CU) subunit names are listed in the Input/Output Member Numbers Appendix, MEM-NUM-APPD, Table D.
- d* = Subunit number. See Input/Output Member Numbers Appendix, MEM-NUM-APPD, Table D.

4. SYSTEM RESPONSE

- ?D = Data field error.
- PF = Printout follows. Followed by the OP-STBY output message.
- RL = Retry later.

5. REFERENCES

Appendixes
MEM-NUM-APPC
MEM-NUM-APPD

Input Message
OP:CFGSTAT

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
OP-CFGSTAT
OP-STBY

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 Input

1. PURPOSE

Requests the status of run commands.

2. FORMAT

OP:ULARP:COMMAND {ALL|a}!

3. EXPLANATION OF MESSAGE

a = Name of equipment configuration data base (ECD) record for run command.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-ULARP,COMMAND output message.

5. REFERENCES

Input Messages

INIT:ULARP

OP:ULARP;EXEC

OP:ULARP;PROC

Output Messages

OP-ULARP, COM

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SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:ULARP;EXEC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests a listing of the execution sequence of child processes and run commands during a bootstrap or user initialization procedure.

2. FORMAT

OP:ULARP:EXECSEQ {BOOT|CFTINIT}!

3. EXPLANATION OF MESSAGE

BOOT = Bootstrap procedure.

CFTINIT = Craft initialization procedure.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-ULARP,EXECSEQ output message.

5. REFERENCES

Input Messages

INIT:ULARP

OP:ULARP;COM

OP:ULARP;PROC

Output Messages

OP-ULARP, EXEC

REPT-ULARP

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ID OP:ULARP;PROC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests the status of UNIX® level automatic restart process (ULARP) child processes.

2. FORMAT

OP:ULARP:PROCESS {ALL|a}!

3. EXPLANATION OF MESSAGE

a = Name of equipment configuration data base (ECD) record for
ULARP child process.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the OP-ULARP,PROCESS output
message.

5. REFERENCES

Input Messages

INIT:ULARP
OP:ULARP;COM
OP:ULARP;EXEC

Output Messages

OP-ULARP, PROC
REPT-ULARP

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ID OP:UMEM-A
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Causes the contents of the generic access package (GRASP) trace to be dumped to a file. The trace goes into the DUMPED state with the successful completion of the command.

2. FORMAT

OP:UMEM [:UCL]!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

NG = No good. No trace is defined.
PF = Printout follows. Followed by the OP-UMEM output message.
RL = Retry later. The system is in an overload condition.
?A = INVALID KEYWORD. Command not allowed in a WHEN action list.
?I = General syntax error.

5. REFERENCES

Input Messages
DUMP:F;ALL
DUMP:F;PARTL
INIT:UMEM
OP:UTIL

Output Messages
OP-UMEM
OP-UTIL

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:UMEM-B
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Causes the contents of the generic access package (GRASP) trace to be dumped to a file. The trace goes into the **DUMPED** state with the successful completion of the command. The output is formatted depending upon the type of trace specified with the **INIT:UMEM** input message.

2. FORMAT

OP:UMEM [;**UCL**][;**MCH**]!

3. EXPLANATION OF MESSAGE

UCL = Unconditionally dump trace memory.
MCH = Dump trace memory of inactive control unit (CU) via the maintenance channel (MCH). This option should only be used in extreme cases in which the sanity of the off-line CU is in question and it is not desirable to perform a switch to that CU.

4. SYSTEM RESPONSE

NG = No good. No trace is defined.
PF = Printout follows. Followed by the **OP-UMEM** output message.
RL = Retry later or wait for previous **OP:UMEM** to complete. The system is in an overload condition.
?A = **INVALID KEYWORD**. Command not allowed in a **WHEN** action list.
?I = General syntax error.

5. REFERENCES

Input Messages
DUMP:F;ALL
DUMP:F;PARTL
INIT:UMEM
OP:UTIL

Output Messages
OP-UMEM
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 OP:UNAV
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests a list of all currently unavailable hardware units. An optional format provides a list of all unavailable units of a particular type.

2. FORMAT

OP:UNAV[:a[b][,cd]]!

3. EXPLANATION OF MESSAGE

- a* = Unit name. Unit names are listed in the Input/Output Member Numbers Appendix, MEM-NUM-APPC, Table C.
- b* = Unit number. See Input/Output Member Numbers Appendix, MEM-NUM-APPC, Table C.
- c* = Subunit name, if *a*=CU. Control unit (CU) subunit names are listed in the Input/Output Member Numbers Appendix, MEM-NUM-APPD, Table D.
- d* = Subunit number. See Input/Output Member Numbers Appendix, MEM-NUM-APPD, Table D.

4. SYSTEM RESPONSE

- ?D = Data field error.
- PF = Printout follows. Followed by the OP-UNAV output message.
- RL = Retry later.

5. REFERENCES

Appendixes
MEM-NUM-APPC
MEM-NUM-APPD

Input Message
OP:CFGSTAT

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
OP-CFGSTAT
OP-UNAV

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:UNEQIP
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests a list of all currently unequipped hardware units. An optional format provides a list of all unequipped units of a particular type.

2. FORMAT

OP:UNEQIP[:{a[b][,c d]})!

3. EXPLANATION OF MESSAGE

- a* = Unit name. Unit names are listed in the Input/Output Member Numbers Appendix, MEM-NUM-APPC, Table C.
- b* = Unit number. See Input/Output Member Numbers Appendix, MEM-NUM-APPC, Table C.
- c* = Subunit name, if *a*=CU. Control unit (CU) subunit names are listed in the Input/Output Member Numbers Appendix, MEM-NUM-APPD, Table D.
- d* = Subunit number. See Input/Output Member Numbers Appendix, MEM-NUM-APPD, Table D.

4. SYSTEM RESPONSE

- ?D = Data field error.
- PF = Printout follows. Followed by the OP-UNEQIP output message.
- RL = Retry later.

5. REFERENCES

Appendixes
MEM-NUM-APPC
MEM-NUM-APPD

Input Message
OP:CFGSTAT

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
OP-CFGSTAT
OP-UNEQIP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:UTIL
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests lists of currently defined generic access package (GRASP) breakpoints, their status, and trace status.

2. FORMAT

OP:UTIL!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

?A = INVALID KEYWORD.
Message not allowed in a WHEN action list.

PF = Printout follows. Followed by the OP-UTIL output message.

RL = Retry later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages
INIT:UMEM
OP:ST;PROC
OP:UMEM
OP:UMEM;MCH
WHEN:PID
WHEN:UID

Output Messages
OP-UTIL
WHEN-PID
WHEN-UID

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:VERSION
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests the generic text version and software update level by file system partition. This information can be used to identify the generic text version and software update level of the partitions should they become detached from the equipment configuration database (ECD).

2. FORMAT

OP:VERSION[,ALL]!

3. EXPLANATION OF MESSAGE

ALL = List of all of the history of changes to the generic text version and software update level since the last generic retrofit. If ALL is not specified, only the latest (current) generic version and software update level, by partition, is listed.

4. SYSTEM RESPONSE

PF = Printout follows. One or more OP:VERSION output message(s) will follow.

5. REFERENCES

Input Message(s):
UPD:VERSION

Output Message(s):
OP:VERSION
UPD:VERSION

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ORD:SCSD-A
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Requests that one of four distribution operations be performed on a scanner and signal distributor (SCSD) distribute point. The operations are: set, clear, flash for eight seconds, and flash continuously. Distribute points can be identified by physical location or by logical address.

2. FORMAT

This message has two formats.

[1] **ORD:SCSD;UNIT** *a*:**PT** {*b*|(*b*,*b*[,*b*,*b*,*b*,*b*,*b*,*b*)]},**OPR** *f*!

[2] **ORD:SCSD;GRPN** *c*,**DUPID** *d*:**PT**{*e*|(*e*,*e*[,*e*,*e*,*e*,*e*)]},**OPR** *f*!

3. EXPLANATION OF MESSAGE

- a* = Member number of the SCSD unit (0-16).
- b* = Physical distribute point number on an SCSD (0-31).
- c* = Name of the logical SCSD group. 3B20D computer supported logical scan groups are:

ACPALARM
FANACU0
FANACU1
PRSWCU0
PRSWCU1
PRSWDFC0
PRSWDFC1
PRSWIOP0
PRSWIOP1
PRSWMHD0
PRSWMHD1

The imcatlg will not recognize any other logical scan groups. If an unrecognized logical scan group is used in the input message, the EXC:UCL command must be entered immediately following the message. This will cause the craft shell to accept this input message, thereby allowing the SCSD software to process and execute it.

- d* = Duplex point ID (0 or 1).

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- e* = Number of a point within a logical group (0-5).
- f* = Operation to be done on the distribute point:
- OPERATE — Set.
 - RELEASE — Clear.
 - REPEAT — Flash continuously.
 - STEP — Flash for eight seconds, which terminates in the cleared state.

4. SYSTEM RESPONSE

- NG = No Good. SCSD administrator process is not active; no communication with SCSD points is possible.
- PF = Printout Follows. Followed by an ORD-SCSD output message.
- RL = Retry Later.

5. REFERENCES

Input Message
EXC:UCL

Output Messages
ORD-SCSD
RCVRY-SCSDC
REPT-SCSD

Practice 254-301-110 *Input-Output Processor Peripheral Controllers 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*

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4. SYSTEM RESPONSE

NG = No Good. SCSD administrator process is not active; no communication with SCSD points is possible.

PF = Printout Follows. Followed by an ORD-SCSD output message.

RL = Retry Later.

5. REFERENCES

Output Messages
ORD-SCSD
RCVRY-SCSDC
REPT-SCSD

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D Model 1 Computer*

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ID RCV:DMTE;RC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Invokes the text recent change and verify (RC/V) activity; this format is used to insert, update, or delete records in the equipment configuration data base (ECD) via serial text input.

Text RC/V is similar to forms RC/V (trbegin, trend, dbdump, etc.) with the following exceptions:

Interactive feedback is on a line basis, not on data fields, etc. Errors will be flagged after a message line.

All key fields must be entered (no defaults) before any data fields.

Assigned default values are not viewable without a secondary operation (see RCV:DMTECD;VFY).

Review / change-insert mode is not supported.

A text RC/V session is a single logical message that can be broken into one or more physical lines between keyword units. When the message is broken into multiple lines, a continuation character ("/") must be entered at the end of each line. At the end of continued lines, an acknowledgment is printed, followed by a prompt for more input. Zero or more form operations can be performed per text RC/V session. The session continues until a line is entered without the continuation character. Note, the shell cannot parse an execute character on a line by itself.

A text RC/V session is divided into two processing segments: process parameters and process forms. The parameter processing must be first and must be successfully completed before forms processing is allowed. No parameter processing can be done once forms processing has begun. The valid text parameters are shown in this section. The parameter section follows the invocation and ends with the next **END** or **FORM** keyword. Note that these keywords cannot be entered on the first line of parameter input. The parameters are verified and errors are generated as needed. If errors are associated with a noncontinued line, the errors are output as a spooler message.

Text RC/V recognizes the following keywords:

- FORM** — Begins a form operation.
- ABORTFORM** — Aborts a particular form operation.
- SET** — This keyword must be used if the field name in the keyword-data-pair (parameter *f*) is part of a structure or list, or contains nonalphanumeric characters.

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- MSG** — Reports an error message when an error occurs during form processing.
- END** — Checks termination status. (Not recognized within a form operation.)

2. FORMAT

```
RCV:DMTECD;RC:{DB|DBF}"a"[,MASKS "b"[,c][,d]/
[FORM("e",g),f,g][,END]{/|!}
```

3. EXPLANATION OF MESSAGE

- DB** = The ECD to be processed is not in loadfile format.
- DBF** = The ECD to be processed is in loadfile format.
- a** = Name of the data base to be processed. May be one of the following:
- broot** — Backup (/broot) full-configuration data base (valid only if backup file system is mounted).
 - brootdmly** — Backup (/broot) minimum-configuration data base (valid only if backup file system is mounted).
 - incore** — In-core copy.
 - root** — Root copy of full-configuration data base.
 - rootdmly** — Root copy of minimum-configuration data base.
- Or the pathname of a data base file. See User Guidelines for definitions of pathname and file.
- b** = Pathname of the directory containing the mask description files. See User Guidelines for definitions of pathname and directory. Default = /lla/ecdmasks.
- c** = JOURNAL/NJOURNAL option.
- JOURNAL** — Print all forms from insert, delete, and updates requests to /etc/rcvecd.journal. (Default)
 - NJOURNAL** — Do not print forms from insert, delete, or updates requests to etc/rcvecd.journal.

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- d* = SYSGEN/NSYSGEN option.
- SYSGEN — Enable the system generation mode of operation. This should only be used when executing a dbload or data base evolution because the changes are written into the data base as applied rather than at the end of the transaction block.
- NSYSGEN — Disable the system generation mode of operation. Changes are not applied to the data base until the end of the transaction block. (Default)
- e* = Formtype name of form to be recent changed. Valid names are listed in the *Recent Change and Verify User's Guide*.
- f* = Keyword_data_pair - This argument is in the general form of a keyword and an argument, where keyword is usually a form field name, and argument is the data for that field. Valid field names and argument values are listed in the *Recent Change and Verify User's Guide*. The *f* argument must be in one of the following formats:
- keyword, ...
keyword "data", ...
SET ("keyword"), ...
SET ("keyword", "data"), ...
ABORTFORM, ...
- g* = The *g* argument is shown twice in the format. The first instance is used to indicate the desired operation to be performed on the associated form-type. The second instance is used to indicate the actual execution of the desired operation once all data has been entered for the form. The legal operation types are;
- CHG — The form is to be updated in the data base.
- NEW — The form is to be inserted into the data base.
- OUT — The form is to be deleted from the data base.
- XEQ — The form is to be executed. This is the default operation type, but is only valid on executable formtypes.

NOTE: Fatal errors are written to /etc/dmtecd.err.

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4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the RCV-DMTECD,RC output message.

OK = Good. Input line successfully processed.

?E *n* WARNING MESSAGES LINES = Enter 'MSG!' *n* times to view *n* messages.

?E *n* WARNING MESSAGES LINES = Enter 'MSG/' *n* times to view *n* messages.

?E *n* ERROR MESSAGES LINES = Enter 'MSG!' *n* times to view *n* messages.

?E *n* ERROR MESSAGES LINES = Enter 'MSG/' *n* times to view *n* messages.

?E NO MORE ERROR MESSAGES = All errors have been viewed.

?D, ?E, or ?I = Shell could not parse input line. Text RC/V ignores the input line.

5. REFERENCES

Input Messages

RCV:DMTE;VFY
RCV:DMTS;RC
RCV:DMTS;VFY
RCV:M;RCVECD
RCV:M;RCVSG

Output Message

RCV-DMTECD, R

SEE PROPRIETARY NOTICE ON COVER PAGE

ID RCV:DMTE;VFY
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Invokes the text recent change and verify (RC/V) activity; this format is used to review equipment configuration data base (ECD) forms via serial text input.

2. FORMAT

**RCV:DMTECD;VFY:{DB|DBF "a"}[,MASKS "b"]/
 ,FORM "c",d,VFY,END!**

3. EXPLANATION OF MESSAGE

- DB** = The ECD to be processed is not in loadfile format.
- DBF** = The ECD to be processed is in loadfile format.
- a** = Name of the data base to be processed. May be one of the following:
- broot** — Backup (/broot) full-configuration data base (valid only if backup file system is mounted).
 - brootdmly** — Backup (/broot) minimum-configuration data base (valid only if backup file system is mounted).
 - incore** — In-core copy.
 - root** — Root copy of full-configuration data base.
 - rootdmly** — Root copy of minimum-configuration data base.
- Or the pathname of a data base file. See User Guidelines for definitions of pathname and file.
- b** = Pathname of the directory containing the mask description files. See User Guidelines for definition of pathname and directory.
Default = /lla/ecdmasks.
- c** = Formtype name of form to be reviewed. Valid names are listed in the *Recent Change and Verify User's Guide*.

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d = Keyword_data_pair - This argument is in the general form of a keyword and an argument, where keyword is usually a form field name, and argument is the data for that field. Valid field names and argument values are listed in the *Recent Change and Verify User's Guide*. The *d* argument must be in one of the following formats:

keyword, ...
keyword "data", ...
SET ("keyword", "data"), ...
ABORTFORM, ...

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by RCV-DMTECD, VFY output message.
OK = Good. Input line successfully processed.
?E *n* WARNING MESSAGES LINES = Enter 'MSG/' *n* times to view *n* messages.
?E *n* ERROR MESSAGES LINES = Enter 'MSG/' *n* times to view *n* messages.
?E NO MORE ERROR MESSAGES = All errors have been viewed.

5. REFERENCES

Input Messages

RCV:DMTE;RC
RCV:DMTS;RC
RCV:DMTS;VFY
RCV:MENU;RCVECD
RCV:MENU;RCVSG

Output Message

RCV-DMTECD, VFY

SEE PROPRIETARY NOTICE ON COVER PAGE

ID RCV:DMTS;RC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Invokes the text recent change and verify (RC/V) activity. This format is used to insert, update, or delete records in the system generation (SG) data base via serial text input.

Text RC/V is similar to forms RC/V (trbegin, trend, dbdump, etc.) with the following exceptions:

Interactive feedback is on a line basis, not on data fields, etc. Errors will be flagged after a message line.

All key fields must be entered (no defaults) before any data fields.

Assigned default values are not viewable without a secondary operation (see RCV:DMTECD;VFY).

Review / change-insert mode is not supported.

A text RC/V session is a single logical message that can be broken into one or more physical lines between keyword units. When the message is broken into multiple lines, a continuation character (/) must be entered at the end of each line. At the end of continued lines, an acknowledgment is printed, followed by a prompt for more input. Zero or more form operations can be performed per text RC/V session. The session continues until a line is entered without the continuation character. Note, the shell cannot parse an execute character on a line by itself.

A text RC/V session is divided into two processing segments: process parameters and process forms. The parameter processing must be first and must be successfully completed before forms processing is allowed. No parameter processing can be done once forms processing has begun. The valid text parameters are shown in this section. The parameter section follows the invocation and ends with the next END or FORM keyword. Note that these keywords cannot be entered on the first line of parameter input. The parameters are verified and errors are generated as needed. If errors are associated with a noncontinued line, the errors are output as a spooler message.

Text RC/V recognizes the following keywords:

- FORM — Begins a form operation.
- ABORTFORM — Aborts a particular form operation.
- SET — This keyword must be used if the field name in the keyword-data-pair (parameter *f*) is part of a structure or list, or contains nonalphanumeric characters.
- MSG — Reports an error message when an error occurs during form processing.
- END — Checks termination status. (Not recognized within a form operation.)

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2. FORMAT

```
RCV:DMTSG;RC:DB "a"[, MASKS "b" ][, c][, d]/
[FORM("e", g), f, g][, END]{| !}
```

3. EXPLANATION OF MESSAGE

- a* = Name of the system generation (SG) data base to be processed. May be one of the following:
- broot* — Backup (/broot) full-configuration data base (valid only if backup file system is mounted).
 - brootdmly* — Backup (/broot) minimum-configuration data base (valid only if backup file system is mounted).
 - incore* — In-core copy.
 - root* — Root copy of full-configuration data base.
 - rootdmly* — Root copy of minimum-configuration data base.
- Or the pathname of a data base file. See User Guidelines for definitions of pathname and file.
- b* = Pathname of the directory containing the mask description files. See User Guidelines for definition of pathname and directory.
Default = /lla/sgmasks.
- c* = JOURNAL/NJOURNAL option.
- JOURNAL* — Print all forms from insert, delete, and updates requests to /etc/rcvsg.journal. (Default)
 - NJOURNAL* — Do not print forms from insert, delete, or updates requests to /etc/rcvsg.journal.
- d* = SYSEN/NSYSGEN option.
- SYSGEN* — Enable the system generation mode of operation. This should only be used when executing a dbload or data base evolution because the changes are written into the data base as applied rather than at the end of the transaction block.
 - NSYSGEN* — Disable the system generation mode operation. Changes are not applied to the data base until the end of the transaction check. (Default)
- e* = Formtype name of form to be recent changed. Valid names are listed in the *Recent Change and Verify User's Guide*.

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f = Keyword_data_pair - This argument is in the general form of a keyword and an argument, where keyword is usually a form field name, and argument is the data for that field. Valid field names and argument values are listed in the *Recent Change and Verify User's Guide*. The *f* argument must be in one of the following formats:

keyword, ...
keyword "data", ...
SET ("keyword"), ...
SET ("keyword", "data"), ...
ABORTFORM, ...

g = The *g* argument is shown twice in the format. The first instance is used to indicate the desired operation to be performed on the associated form-type. The second instance is used to indicate the actual execution of the desired operation once all data has been entered for the form. The legal operation types are:

CHG — The form is to be updated in the data base.
NEW — The form is to be inserted into the data base.
OUT — The form is to be deleted from the data base.
XEQ — The form is to be executed. This is the default operation type, but is only valid on executable form-types.

NOTE: Fatal errors are written to /etc/dmtsg.err.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the RCV-DMTSG, RC output message.
OK = Good. Input line successfully processed.
?E *n* WARNING MESSAGES LINES = Enter 'MSG/' *n* times to view *n* messages.
?E *n* ERROR MESSAGES LINES = Enter 'MSG/' *n* times to view *n* messages.
?E NO MORE ERROR MESSAGES = All errors have been viewed.
?D, ?E, or ?I = Shell could not parse input line. Text RC/V ignores the input line.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

Input Messages

RCV:DMTECD;RC

RCV:DMTE;VFY

RCV:DMTS;VFY

RCV:M;RCVECD

RCV:M;RCVSG

Output Message

RCV-DMTSG,RC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID RCV:DMTS;VFY
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Invokes the text recent change and verify (RC/V) activity. This format is used to review system generation (SG) data base forms via serial text input.

2. FORMAT

**RCV:DMTSG;VFY:DB "a"[,MASKS "b"]/
FORM "c",d,VFY,END!**

3. EXPLANATION OF MESSAGE

a = Name of the SG data base to be processed. May be one of the following:

broot — Backup (/broot) full-configuration data base
(valid only if backup file system is mounted).

brootdmly — Backup (/broot) minimum-configuration data
base (valid only if backup file system is
mounted).

root — Root copy of full-configuration data base.

rootdmly — Root copy of minimum-configuration data base.

Or the pathname of a data base file. See the User Guidelines for
definitions of pathname and file.

b = Pathname of the directory containing the mask description files. The
default is /lla/sgmasks.

c = Formtype name of form to be reviewed. Valid names are listed in the
Recent Change and Verify User's Guide.

d = keyword_data_pairs - This argument is in the general form of a
keyword and an argument, where keyword is usually a form key
field name, and argument is the data for that field. Valid key field
names and argument values are listed in the *Recent Change and Verify
User's Guide*. The *d* argument must be in one of the following
formats:

keyword, ...
keyword "data", ...
SET ("keyword"), ...
SET ("keyword", "data"), ...
ABORTFORM, ...

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All key fields must be specified.

NOTE: Fatal errors are written to `/etc/dmtsg.err`.

4. SYSTEM RESPONSE

OK = Good. Input line successfully processed.

PF = Printout Follows. Followed by the RCV-DMTSG,VFY output message.

?E *n* ERROR MESSAGE LINES = Enter 'MSG/' *n* times to view *n* messages.

?E NO MORE ERROR MESSAGES = All errors have been viewed.

?E *n* WARNING MESSAGES LINES = Enter 'MSG/' *n* times to view *n* messages.

5. REFERENCES

Input Messages

RCV:DMTE;RC
RCV:DMTE;VFY
RCV:DMTS;RC
RCV:M;RCVECD
RCV:M;RCVSG

Output Message

RCV-DMTS,VFY

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID RCV:M;BROWSE
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Reads or patches a central processor database using the "browse" tool. This tool is not supported on the maintenance terminal (MCRT) or on a Switching Control Center (SCC) terminal.

****CAUTION****

Incorrect use of this message can cause serious damage to a system database. It should never be used without expert technical assistance.

2. FORMAT

RCV:MENU:BROWSE[,STDIN "a"][,STDOUT "b"][,STDERR "c"]!

3. EXPLANATION OF MESSAGE

- a* = Pathname of the file to be used for redirection of standard input.
- b* = Pathname of the file to be used for redirection of standard output.
- c* = Pathname of the file to be used for redirection of standard error.

See User Guidelines for definitions of pathname and file.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by the RCV-MENU output message.
- PF = INTERACTIVE PROCESS ON MTTY REQUIRES REDIRECTION
OF STDIN AND STDOUT
Self-explanatory.
- OK = Good. The requested action initiated and completed.

5. REFERENCES

Input Messages
RCV:M;CMPRDB
RCV:M;CREATEECD
RCV:M;CREATESG
RCV:M;EVOL
RCV:M;FDIFF
RCV:M;KEYCMP
RCV:M;KEYCOMM

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RCV:M;KEYS
RCV:M;LOADF3B
RCV:M;NEWDB
RCV:M;PRINTDB
RCV:M;PRINTFRM
RCV:M;RCVECD
RCV:M;RCVSG
RCV:M;TRANSGEN
RCV:M;TREEBLD
RCV:M;VFYDFLT

Output Message
RCV-MENU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID RCV:M;CMPRDB
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Compares the equipment configuration database (ECD) or the system generation (SG) database. It creates three files for each formtype:

outdir/keycmp/formtype

Contains form keys in three columns; keys found only in the ECD; keys only in found SG; and keys found in both ECD and SG.

outdir/keycomm/formtype

Contains form keys found in both ECD and SG in one column.

outdir/fdiff/formtype

Contains a comparison of all forms that are in both ECD and SG.

In each case "outdir" and "formtype" are replaced by the arguments entered with the keywords **OUTDIR** and **FORM**, respectively.

RCV:MENU;COMPAREDB is usually preceded by executing RCV:MENU;NEWDB to create the data for the NEWDIR1 and NEWDIR2 parameters.

2. FORMAT

RCV:MENU:COMPAREDB,RCV "a",[MASKS "b",]DB1 "c",NEWDIR1 "d",
DB2 "e",NEWDIR2 "f",OUTDIR "g",[FORM "h"][STDERR "i"]!

3. EXPLANATION OF MESSAGE

- a* = Name of the recent change and verify (RC/V) program (rcvecd or rcvsg).
- b* = Pathname of the directory containing the mask files used by RC/V. See the User Guidelines section in this manual for definitions of pathname and directory.
Default = /lla/ecdmasks or /lla/sgmasks.
- c* = Name of the ECD or SG database for DB1. May be one of the following:
 - broot — Backup (/broot) full-configuration database (valid only if backup file system is mounted).

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brootdmly — Backup (/broot) minimum-configuration database (valid only if backup file system is mounted).

incore — In-core copy.

root — Root copy of full-configuration database.

rootdmly — Root copy of minimum-configuration database.

or the pathname of a database file. See the User Guidelines section in this manual for definitions of pathname and file.

NOTE: Any database name used in the RCV:MENUCREATEECD or RCV:MENUCREATESG input message may be used here.

d = Pathname of the directory which contains all the keys for DB1. The data for this parameter may be created by executing RCV:MENUNEWDB.

e = Name of the ECD or SG database for DB2. Refer to the explanation of message given for option c.

f = Pathname of the directory which contains all the keys for DB2. The data for this parameter may be created by executing RCV:MENUNEWDB.

g = Pathname of the output directory where the comparison will be written. This directory will be created if it does not exist.

h = Form type(s) to be compared. Up to 20 may be entered. Valid form types are listed in the *Database Form Guide of the Recent Change and Verify Manual*.

i = Pathname of the file for redirection of standard error.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the RCV-MENU output message.

OK = Good. Requested action initiated and completed.

5. REFERENCES

Input Messages

RCV:M;BROWSE
RCV:M;CREATEECD
RCV:M;CREATESG
RCV:M;EVOL
RCV:M;FDIFF
RCV:M;KEYCMP
RCV:M;KEYCOMM
RCV:M;KEYS
RCV:M;LOADF3B

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RCV:M;NEWDB
RCV:M;PRINTDB
RCV:M;PRINTFRM
RCV:M;RCVECD
RCV:M;RCVSG
RCV:M;TRANSGEN
RCV:M;TREEBLD
RCV:M;VFYDFLT

Output Message
RCV-MENU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID RCV:M;CREATEECD
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Generates a skeleton equipment configuration data base (ECD).

2. FORMAT

RCV:MENU:CREATEECD,DB "a"[,AUDINST b][,APHOPT c][,APHUSER d]
[,AUDREC e][,BXSLLLOC f][,BXSLRMT g][,DEVICE h][,LOGDEV i]
[,MDCT j][,RUNA k][,TSAPINFO l][,UCB m][,ULARP n]!

3. EXPLANATION OF MESSAGE

- a* = Pathname of the data base skeleton to be created. See the User Guidelines for definitions of pathname and file.
- b-n* = Estimated number of records to be contained in each specified set. The correct choice of these values can reduce disk fragmentation and decrease processor time by eliminating unnecessary growth.

NOTE: Message errors are written to /etc/createecd.err.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by the RCV-MENU output message.
- OK = Good. Requested action initiated and completed.

5. REFERENCES

Input Messages
RCV:DMTE;RC
RCV:DMTS;RC
RCV:M;BROWSE
RCV:M;CMPRDB
RCV:M;CREATESG
RCV:M;EVOL
RCV:M;FDIFF
RCV:M;KEYCMP
RCV:M;KEYCOMM
RCV:M;KEYS
RCV:M;LOADF3B
RCV:M;NEWDB
RCV:M;PRINTDB

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RCV:M;PRINTFRM
RCV:M;RCVECD
RCV:M;RCVSG
RCV:M;TRANSGEN
RCV:M;TREEBLD
RCV:M;VFYDFLT

Output Message
RCV-MENU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID RCV:M;CREATESG
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Generates a skeleton system generation data base (SG).

2. FORMAT

RCV:MENU:CREATESG,DB "a"[,PACK b][,PROCESS c][,SHARE d]!

3. EXPLANATION OF MESSAGE

- a* = Pathname of the data base skeleton to be created. See the User Guidelines for definitions of pathname and file.
- b-d* = Estimated number of records to be contained in each specified set. The correct choice of these values can reduce disk fragmentation and decrease processor time by eliminating unnecessary growth of internal access structures.

NOTE: Message errors are written to /etc/createsg.err.

4. SYSTEM RESPONSE

- OK = Good. Requested action initiated and completed.
- PF = Printout follows. Followed by the RCV-MENU output message.

5. REFERENCES

Input Messages
RCV:DMTE;RC
RCV:DMTS;RC
RCV:M;BROWSE
RCV:M;CMPRDB
RCV:M;CREATEECD
RCV:M;EVOL
RCV:M;FDIFF
RCV:M;KEYCMP
RCV:M;KEYCOMM
RCV:M;KEYS
RCV:M;LOADF3B
RCV:M;NEWDB
RCV:M;PRINTDB
RCV:M;PRINTFRM
RCV:M;RCVECD

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RCV:M;RCVSG
RCV:M;TRANSGEN
RCV:M;TREEBLD
RCV:M;VFYDFLT

Output Message
RCV-MENU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID RCV:M;EVOL
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Invokes a specified recent change activity; this format is used to evolve a new database from an old one. The databases are in dump format.

2. FORMAT

RCV:MENU:EVOL, OLD "a", DB "b", ORDER "c", NEW "d"!

3. EXPLANATION OF MESSAGE

- a* = Pathname of the old database in dump/load format. This file was previously created by RCVECD or RCVSG upon insertion of the db_dump form. See User Guidelines for definitions of pathname and file.
- b* = Pathname of the translation database.
- c* = Pathname of the file containing the specification of the order of evolution; that is, the order in which new form types should appear in *d*.
- d* = Pathname of the file to contain the evolved database in dump/load format. This file will be used as input to RCVECD or RCVSG upon insertion of the db_load form.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by the REPT-RCV, MENU output message.
- OK = OK. Requested action initiated and completed.

5. REFERENCES

Input Messages

RCV:M;BROWSE
RCV:M;CMPRDB
RCV:M;CREATEECD
RCV:M;CREATESG
RCV:M;FDIFF
RCV:M;KEYCMP
RCV:M;KEYCOMM
RCV:M;KEYS
RCV:M;LOADF3B
RCV:M;NEWDB
RCV:M;PRINTDB

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RCV:M;PRINTFRM
RCV:M;RCVECD
RCV:M;RCVSG
RCV:M;TRANSGEN
RCV:M;TREEBLD
RCV:M;VFYDFLT

Output Message
REPT-RCV,MENU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID RCV:M;FDIFF
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Compares of two form types. It compares the first form from PFILE1 with the first form from PFILE2, and continues this process for each successive form until reaching the end of the file. If any pair of forms should differ, RCV:MENU:FDIFF prints the two database names, the form type, the form key(s), and the lines that differ.

2. FORMAT

RCV:MENU:FDIFF, MASK "a", PFILE1 "b", PFILE2 "c"
[, STDOUT "d"][, STDERR "e"]!

3. EXPLANATION OF MESSAGE

- a* = Pathname of the mask file associated with the form type. See User Guidelines for definitions of pathname and file.
- b* = Pathname of the first printfile. (Usually the output of RCV:MENU:PRINTFRM which uses the output of RCV:MENU:KEYCOMM.)
- c* = Pathname of the second printfile. (Usually the output of RCV:MENU:PRINTFRM which uses the output of RCV:MENU:KEYCOMM.)
- d* = Pathname of the file for redirection of standard output.
- e* = Pathname of the file for redirection of standard error.

4. SYSTEM RESPONSE

- OK = OK. Requested action initiated and completed.
- PF = Printout follows. Followed by the RCV-MENU output message.

5. REFERENCES

Input Messages
RCV:M;BROWSE
RCV:M;CMPRDB
RCV:M;CREATEECD
RCV:M;CREATESG
RCV:M;EVOL
RCV:M;KEYCMP
RCV:M;KEYCOMM
RCV:M;KEYS
RCV:M;LOADF3B

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RCV:M;NEWDB
RCV:M;PRINTDB
RCV:M;PRINTFRM
RCV:M;RCVECD
RCV:M;RCVSG
RCV:M;TRANSGEN
RCV:M;TREEBLD
RCV:M;VFYDFLT

Output Message
RCV-MENU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID RCV:M;KEYCMP
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Compares of two sorted keyfiles. The comparison consists of three files: keys only in file *a*, keys only in file *b*, and keys in file *a* and file *b*.

2. FORMAT

**RCV:MENU:KEYCMP, KFILE1 "a", KFILE2 "b" [, STDOUT "c"]
[, STDERR "d"]!**

3. EXPLANATION OF MESSAGE

a = Pathname of the first keyfile. See User Guidelines for definition of
pathname.
b = Pathname of the second keyfile.
c = Pathname of the file for redirection of standard output.
d = Pathname of the file for redirection of standard error.

4. SYSTEM RESPONSE

OK = OK. Requested action initiated and completed.
PF = Printout follows. Followed by the RCV-MENU output message.

5. REFERENCES

Input Messages

RCV:M;BROWSE
RCV:M;CMPRDB
RCV:M;CREATEECD
RCV:M;CREATESG
RCV:M;EVOL
RCV:M;FDIFF
RCV:M;KEYCOMM
RCV:M;KEYS
RCV:M;LOADF3B
RCV:M;NEWDB
RCV:M;PRINTDB
RCV:M;PRINTFRM
RCV:M;RCVECD
RCV:M;RCVSG
RCV:M;TRANSGEN
RCV:M;TREEBLD

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RCV:M;VFYDFLT

Output Message
RCV-MENU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID RCV:M;KEYCOMM
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Creates, on the standard output, a list of all keys that are common to two sorted keyfiles. If the output from this input message is directed to a file, the file may be used as input to RCV:MENU:PRINTFRM.

2. FORMAT

**RCV:MENU:KEYCOMM, KFILE1 "a", KFILE2 "b" [, STDOUT "c"]
[, STDERR "d"]!**

3. EXPLANATION OF MESSAGE

- a* = Pathname of the first keyfile. See User Guidelines for definition of pathname.
- b* = Pathname of the second keyfile.
- c* = Pathname of the file for redirection of standard output.
- d* = Pathname of the file for redirection of standard error.

4. SYSTEM RESPONSE

- OK = OK. Requested action initiated and completed.
- PF = Printout follows. Followed by the RCV-MENU output message.

5. REFERENCES

Input Messages

RCV:M;BROWSE
RCV:M;CMPRDB
RCV:M;CREATEECD
RCV:M;CREATESG
RCV:M;EVOL
RCV:M;FDIFF
RCV:M;KEYCMP
RCV:M;KEYS
RCV:M;LOADF3B
RCV:M;NEWDB
RCV:M;PRINTDB
RCV:M;PRINTFRM
RCV:M;RCVECD
RCV:M;RCVSG
RCV:M;TRANSGEN

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RCV:M;TREEBLD
RCV:M;VFYDFLT

Output Message
RCV-MENU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID RCV:M;KEYS
 GENERIC UNIX RTR R1.5, R6.4,
 R21.3, R21.11, R21.15 and
 later
 TYPE Input

1. PURPOSE

Creates a sorted list of form keys for all the instances of a given form type found in the equipment configuration database (ECD) and the system generation (SG) database.

2. FORMAT

**RCV:MENU:KEYS, RCV "a", [MASKS "b",]DB "c", FORM "d", KFILE "e"
 [, STDERR "f"]!**

3. EXPLANATION OF MESSAGE

- a* = Name of the recent change and verify (RC/V) program (rcvecd or rcvsg).
- b* = Pathname of the directory containing the mask files used by RC/V. See the User Guidelines in this manual for definitions of pathname and directory.
 Default = /lla/ecdmasks or /lla/sgmasks.
- c* = Name of the database to be processed. May be one of the following:
 - broot* — Backup (/broot) full-configuration database (valid only if backup file system is mounted).
 - brootdmly* — Backup (/broot) minimum-configuration database (valid only if backup file system is mounted).
 - incore* — In-core copy.
 - root* — Root copy of full-configuration database.
 - rootdmly* — Root copy of minimum-configuration database.

Or the pathname of a database file. See the User Guidelines in this manual for definitions of pathname and file.

NOTE: Any database name used in the RCV:MENU;CREATEECD or RCV:MENU;CREATESG input message may be used here.

- d* = Form type associated with the desired keys. Valid form types are listed in the *Recent Change and Verify User's Guide*.
- e* = Pathname of the file name to be used for listing the desired keys.
- f* = Pathname of the file for redirection of standard error.

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4. SYSTEM RESPONSE

OK = Good. Requested action initiated and completed.

PF = Printout follows. Followed by a RCV-MENU output message.

5. REFERENCES

Input Messages

RCV:M;BROWSE
RCV:M;CMPRDB
RCV:M;CREATEECD
RCV:M;CREATESG
RCV:M;EVOL
RCV:M;FDIFF
RCV:M;KEYCMP
RCV:M;KEYCOMM
RCV:M;LOADF3B
RCV:M;NEWDB
RCV:M;PRINTDB
RCV:M;PRINTFRM
RCV:M;RCVECD
RCV:M;RCVSG
RCV:M;TRANSGEN
RCV:M;TREEBLD
RCV:M;VFYDFLT

Output Message

RCV-MENU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID RCV:M;LOADF3B
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Invokes a specified recent change activity. This format is used to create a database in loadfile format from a set of database files.

2. FORMAT

RCV:MENU:LOADF3B,DB["a",b],LF["c", d[, "e"]][,STDERR "f"]!

3. EXPLANATION OF MESSAGE

a = Full root pathname of the equipment configuration database (ECD) (for example, /tmp/dmert.ecd). This is the file from which the loadfile will be generated. See the User Guidelines in this manual for definitions of pathname and file.

NOTE: Any database name used in the RCV:MENU;CREATEECD input message may be used here.

b = Page size of *a*, specified as the number of bytes, in decimal notation.

c = Pathname of the loadfile, which contains the load image of the database.

d = Virtual address where the loadfile is to be loaded, in decimal notation.

e = Optional argument used to specify the number of bytes (in decimal) to be built into *c* for growth. All instances of *e* should be in multiples of the page size *b*. The default for this argument will be the size of any free space within the current segment.

f = Pathname of the file for redirection of standard error.

4. SYSTEM RESPONSE

OK = Good. Requested action initiated and completed.

PF = Printout follows. Followed by a RCV-MENU output message.

5. REFERENCES

Input Messages

RCV:M;BROWSE
RCV:M;CMPRDB
RCV:M;CREATEECD
RCV:M;CREATESG
RCV:M;EVOL

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RCV:M;FDIFF
RCV:M;KEYCMP
RCV:M;KEYCOMM
RCV:M;KEYS
RCV:M;NEWDB
RCV:M;PRINTDB
RCV:M;PRINTFRM
RCV:M;RCVECD
RCV:M;RCVSG
RCV:M;TRANSGEN
RCV:M;TREEBLD
RCV:M;VFYDFLT

Output Message
RCV-MENU

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ID RCV:M;NEWDB
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Creates a sorted list of keys for all form types in the equipment configuration database (ECD) or the system generation (SG) database. A sorted key file for each form type is written in *d/keys/formtype* where *d* is the argument that is entered with the **OUTDIR** keyword and *formtype* is the name of the form type. This message creates key lists for all data form types, that is all form types listed by klist of recent change and verify (RC/V).

2. FORMAT

RCV:MENU:NEWDB,RCV "a",[MASKS "b",]DB "c",OUTDIR "d"
[,STDERR "e"]!

3. EXPLANATION OF MESSAGE

- a* = Name of the recent change and verify (RC/V) program (rcvecd or rcvsg).
- b* = Pathname of the directory containing the mask files used by RC/V. See the User Guidelines section in this manual for definitions of pathname and directory.
Default = /lla/ecdmasks or /lla/sgmasks.
- c* = Name of the database to be processed. May be one of the following.
- | | |
|-----------|---|
| broot | — Backup (/broot) full-configuration database (valid only if backup file system is mounted). |
| brootdmly | — Backup (/broot) minimum-configuration database (valid only if backup file system is mounted). |
| incore | — In-core copy. |
| root | — Root copy of full-configuration database. |
| rootdmly | — Root copy of minimum-configuration database. |

Or the pathname of a database file. See the User Guidelines section in this manual for definitions of pathname and file.

NOTE: Any database name used in the RCV:MENU;CREATEECD or RCV:MENU;CREATESG input message may be used here.

- d* = Pathname of the output directory where keylist files will be placed. This directory will be created if it does not exist.
- e* = Pathname of the file for redirection of standard error.

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4. SYSTEM RESPONSE

PF = Printout follows. Followed by a RCV-MENU output message.
PF = Requested action initiated and completed.

5. REFERENCES

Input Messages

RCV:M;BROWSE
RCV:M;CMPRDB
RCV:M;CREATEECD
RCV:M;CREATESG
RCV:M;EVOL
RCV:M;FDIFF
RCV:M;KEYCMP
RCV:M;KEYCOMM
RCV:M;KEYS
RCV:M;LOADF3B
RCV:M;PRINTDB
RCV:M;PRINTFRM
RCV:M;RCVECD
RCV:M;RCVSG
RCV:M;TRANSGEN
RCV:M;TREEBLD
RCV:M;VFYDFLT

Output Message

RCV-MENU

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ID RCV:M;PRINTDB
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Creates files of form instances when specified data form type(s) from the equipment configuration database (ECD) and the system generation (SG) database are given. The keyfile for *formtype* is found in *d/keys/formtype*, and the file of the form instances is created in *d/print/formtype*, where *d* is the argument that is entered with the **OUTDIR** keyword and *formtype* is a file name corresponding to the type of form to be printed.

2. FORMAT

**RCV:MENU:PRINTDB, RCV "a", [MASKS "b",]DB "c", OUTDIR "d"
[, FORM "e"][, STDERR "f"]!**

3. EXPLANATION OF MESSAGE

- a* = Name of the recent change and verify (RC/V) program (rcvecd or rcvsg).
- b* = Pathname of the directory containing the mask files used by RC/V. See the User Guidelines in this manual for definitions of pathname and directory.
Default = /lla/ecdmasks or /lla/sgmasks.
- c* = Name of the database to be processed. May be one of the following:
- broot** — Backup (/broot) full-configuration database (valid only if backup file system is mounted).
 - brootdmly** — Backup (/broot) minimum-configuration database (valid only if backup file system is mounted).
 - incore** — In-core copy.
 - root** — Root copy of full-configuration database.
 - rootdmly** — Root copy of minimum-configuration database.
- Or may be the pathname of a database file. See the User Guidelines in this manual for definitions of pathname and file.
- NOTE:** Any database name used in the RCV:MENU;CREATEECD or RCV:MENU;CREATESG input message may be used here.
- d* = Pathname of the output directory.
- e* = Form type or types that are to be printed. Up to 20 may be entered. Valid form types are listed in the Recent Change and Verify User's Guide. Default is all data form types listed by klist in RC/V.
- f* = File for redirection of standard error.

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4. SYSTEM RESPONSE

OK = Good. Requested action initiated and completed.
PF = Printout follows. Followed by the RCV-MENU output message.

5. REFERENCES

Input Messages

RCV:M;BROWSE
RCV:M;CMPRDB
RCV:M;CREATEECD
RCV:M;CREATESG
RCV:M;EVOL
RCV:M;FDIFF
RCV:M;KEYCMP
RCV:M;KEYCOMM
RCV:M;KEYS
RCV:M;LOADF3B
RCV:M;NEWDB
RCV:M;PRINTFRM
RCV:M;RCVECD
RCV:M;RCVSG
RCV:M;TRANSGEN
RCV:M;TREEBLD
RCV:M;VFYDFLT

Output Message

RCV-MENU

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ID RCV:M;PRINTFRM
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Creates a file of all form instances, given a list of form keys, found in the equipment configuration database (ECD) and the system generation (SG) database.

2. FORMAT

RCV:MENU:PRINTFRM,RCV "a",[MASKS "b",]DB"c",KFILE"d",PFILE "e"[,STDERR "f"]!

3. EXPLANATION OF MESSAGE

- a* = Name of the recent change and verify (RC/V) program (rcvecd or rcvsg).
- b* = Pathname of the directory containing the mask files used by RC/V. See the User Guidelines in this manual for definitions of pathname and directory.
Default = /lla/ecdmasks or /lla/sgmasks.
- c* = Name of the database to be processed. May be one of the following:
- broot — Backup (/broot) full-configuration database (valid only if backup file system is mounted).
 - brootdmly — Backup (/broot) minimum-configuration database (valid only if backup file system is mounted).
 - incore — In-core copy.
 - root — Root copy of full-configuration database.
 - rootdmly — Root copy of minimum-configuration database.

Or may be the pathname of a database file. See the User Guidelines in this manual for definitions of pathname and file.

NOTE: Any database name used in the RCV:MENU;CREATEECD or RCV:MENU;CREATESG input message may be used here.

- d* = Pathname of the file that contains the list of form keys.
- e* = Pathname of the file to contain printed form instances.
- f* = Pathname of the file for redirection of standard error.

4. SYSTEM RESPONSE

- OK = Good. Requested action initiated and completed.
- PF = Printout follows. Followed by the RCV-MENU output message.

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5. REFERENCES

Input Messages

RCV:M;BROWSE
RCV:M;CMPRDB
RCV:M;CREATEECD
RCV:M;CREATESG
RCV:M;EVOL
RCV:M;FDIFF
RCV:M;KEYCMP
RCV:M;KEYCOMM
RCV:M;KEYS
RCV:M;LOADF3B
RCV:M;NEWDB
RCV:M;PRINTDB
RCV:M;RCVECD
RCV:M;RCVSG
RCV:M;TRANSGEN
RCV:M;TREEBLD
RCV:M;VFYDFLT

Output Message

RCV-MENU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID RCV:M;RCVECD
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Reviews or modifies an equipment configuration database (ECD) through recent change (RC). This message is supported from the maintenance teletypewriter (MTTY) only if both **STDIN** and **STDOUT** are redirected. This message is not supported over the Switching Control Center (SCC) link.

2. FORMAT

RCV:MENU:RCVECD, [DB "a"|DBF "a"][, TERM b][, MASKS "c"]
[, DEFAULTS "d"][, PRINT "e"][, ECHO "f"][, g][, h][, i][, j]
[, k][, l][, STDIN "m"][, STDOUT "n"][, STDERR "o"]!

3. EXPLANATION OF MESSAGE

- DB** = The ECD to be processed is not in loadfile format.
- DBF** = The ECD to be processed is in loadfile format.
- a** = Name of the database to process. May be the pathname of a database file, or one of the following:
- broot** — Backup (/broot) full-configuration database (valid only if backup file system is mounted).
 - brootdmly** — Backup (/broot) minimum-configuration database (valid only if backup file system is mounted).
 - incore** — In-core copy.
 - root** — Root copy of full-configuration database.
 - rootdmly** — Root copy of minimum-configuration database. See the User Guidelines for definitions of pathname and file.
- NOTE:** Any database name used in the **RCV:MENU;CREATEECD** input message may be used here.
- b** = Terminal type on which forms are to be displayed.
Valid types = VT100, VT52, ADM3A, ADM42, HP2621, GNAT, and DUMB. The default is VT100.

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If VT100 is selected, the internal terminal setup options must be correctly initialized. Critical values for on-line data integrity (ODIN) system are contained in the fourth grouping, which must be 1010. To check the options, press the setup key, then the key. To change the options, use the left cursor key to tab to the desired flag, then use the key to toggle its value. Pressing the setup key returns the terminal to the normal mode of operation.

- c* = Pathname of the directory containing the mask description files. See the User Guidelines in this manual for definitions of pathname and directory.
The default is /lla/ecdmasks.
- d* = Pathname of the directory containing the low level mask default files. See the User Guidelines for definitions of pathname and directory.
The default is /lla/defaults.
- e* = Pathname of the file to be used for writing form instances. This option is independent of JOURNAL.
- f* = Pathname of the file to which the set of key strokes executed during the course of the RC/V session is sent. This file may be reapplied in a later RC/V session as batch input.
- g* = HELP/NHELP option.
 - HELP — Enable help messages at the bottom of the screen (default).
 - NHELP — Disables help messages.
- h* = REVIEW/NREVIEW option.
 - REVIEW — Allow only review requests (and disallow insert, delete, and update requests) (default).
 - NREVIEW — Allow insert, delete, and update requests.
- i* = JOURNAL/NJOURNAL option.
 - JOURNAL — Print all forms from insert, delete, and update requests to /etc/rcvecd.jrnl[0,1] (default).
 - NJOURNAL — Do not print forms from insert, delete, or update requests to /etc/rcvecd.jrnl[0,1].
- j* = HLMODE/NHLMODE option.
 - HLMODE — Enable high level functionality.
 - NHLMODE — Disables high level functionality (default).
- k* = SYSGEN/NSYSGEN option.
 - SYSGEN — Enable the system generation mode of operation. This should only be used when executing a dbload or database evolution because the changes are written into the database as applied rather than at the end of the transaction block.

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NSYSGEN — Disable the system generation mode of operation.
Changes are not applied to the database until the
end of the transaction block.

l = PRCMSG/NPRCMSG option.

PRCMSG — Enable ODIN to print processing messages in the
upper right-hand corner of the CRT screen
(default).

NPRCMSG — Disable processing messages.

m = Pathname of the file for redirection of standard input.

n = Pathname of the file for redirection of standard output.

o = Pathname of the file for redirection of standard error.

4. SYSTEM RESPONSE

NG = No good.

— INTERACTIVE PROCESS ON MTTY REQUIRES REDIRECTION
OF STDIN AND STDOUT
Self explanatory.

OK = Good. Requested action initiated and completed.

PF = Printout follows. Followed by the RCV-MENU output message.

5. REFERENCES

Input Messages

RCV:DMTE;RC
RCV:DMTE;VFY
RCV:DMTS;RC
RCV:DMTS;VFY
RCV:M;BROWSE
RCV:M;CMPRDB
RCV:M;CREATEECD
RCV:M;CREATESG
RCV:M;EVOL
RCV:M;FDIFF
RCV:M;KEYCMP
RCV:M;KEYCOMM
RCV:M;KEYS
RCV:M;LOADF3B
RCV:M;NEWDB
RCV:M;PRINTDB

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RCV:M;PRINTFRM
RCV:M;RCVSG
RCV:M;TRANSGEN
RCV:M;TREEBLD
RCV:M;VFYDFLT

Output Message
RCV-MENU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID RCV:M;RCVSG
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Reviews or modifies a system generation (SG) database through recent change (RC). This message is supported from the maintenance teletypewriter (MTTY) only if both **STDIN** and **STDOUT** are redirected. This message is not supported over the Switching Control Center (SCC) link.

2. FORMAT

RCV:MENU:RCVSG, [DB "a"][, TERM b][, MASKS "c"][, PRINT "d"][, ECHO "e"]
[, f][, g][, h][, i][, j][, **STDIN** "k"][, **STDOUT** "l"][, **STDERR** "m"]!

3. EXPLANATION OF MESSAGE

a = Name of the SG database to be processed. May be the pathname of a database file, or one of the following:

broot — Backup (/broot) full-configuration database
(valid only if backup is mounted).

brootdmly — Backup (/broot) minimum-configuration
database (valid only if backup is mounted).

root — Root copy of full-configuration database.

rootdmly — Root copy of minimum-configuration database.

See the User Guidelines in this manual for definitions of pathname and file.

NOTE: Any database name used in the RCV:MENU;CREATESG input message may be used here.

b = Terminal type on which forms are to be displayed.
Valid types are VT100, VT52, ADM3A, ADM42, HP2621, GNAT, and DUMB. The default is VT100.

If VT100 is selected, the internal terminal setup options must be correctly initialized. Critical values for on-line data integrity (ODIN) system are contained in the fourth grouping, which must be 1010. To check the options, press the setup key, then the key. To change the options, use the left cursor key to tab to the desired flag, then use the key to toggle its value. Pressing the setup key returns the terminal to the normal mode of operation.

c = Pathname of the directory containing the mask description files. See the User Guidelines for definitions of pathname and directory. The default is /lla/sgmasks.

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- d* = Pathname of the file to be used for writing form instances. This option is independent of JOURNAL.
- e* = Pathname of the file to which the set of key strokes executed during the course of the RC/V session is sent. This file may be reapplied in a later RC/V session as batch input.
- f* = HELP/NHELP option.
- HELP — Enable help messages at the bottom of the screen (default).
 - NHELP — Disables help messages.
- g* = REVIEW/NREVIEW option.
- REVIEW — Allow only review requests (and disallow insert, delete, and update requests) (default).
 - NREVIEW — Allow insert, delete, and update requests.
- h* = JOURNAL/NJOURNAL option.
- JOURNAL — Print all forms from insert, delete, and update requests to /etc/rcvsg.jrnl[0,1] (default).
 - NJOURNAL — Do not print forms from insert, delete, or update requests to /etc/rcvsg.jrnl[0,1].
- i* = SYSGEN/NSYSGEN option.
- SYSGEN — Enable the system generation mode of operation. This should only be used when executing a dbload or database evolution because the changes are written into the database as applied rather than at the end of the transaction block.
 - NSYSGEN — Disable the system generation mode of operation. Changes are not applied to the database until the end of the transaction block (default).
- j* = PRCMSG/NPRCMSG option.
- PRCMSG — Enables ODIN to print processing messages in the upper right-hand corner of the CRT screen (default).
 - NPRCMSG — Disables processing messages.
- k* = Pathname of the file for redirection of standard input.
- l* = Pathname of the file for redirection of standard output.
- m* = Pathname of the file for redirection of standard error.

NOTE: The error file for this message is /etc/rcvsg.err.

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4. SYSTEM RESPONSE

NG = No good.
 — INTERACTIVE PROCESS ON MTTY REQUIRES REDIRECTION
 OF STDIN AND STDOUT
 Self explanatory.

OK = Good. Requested action initiated and completed.

PF = Printout follows. Followed by the RCV-MENU output message.

5. REFERENCES

Input Messages

RCV:DMTE;RC
RCV:DMTE;VFY
RCV:DMTS;RC
RCV:DMTS;VFY
RCV:M;BROWSE
RCV:M;CMPRDB
RCV:M;CREATEECD
RCV:M;CREATESG
RCV:M;EVOL
RCV:M;FDIFF
RCV:M;KEYCMP
RCV:M;KEYCOMM
RCV:M;KEYS
RCV:M;LOADF3B
RCV:M;NEWDB
RCV:M;PRINTDB
RCV:M;PRINTFRM
RCV:M;RCVECD
RCV:M;TRANSGEN
RCV:M;TREEBLD
RCV:M;VFYDFLT

Output Message

RCV-MENU

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ID RCV:M;TRANSGEN
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Invokes a specified recent change activity; this format is used to create a translation database when a tree address space and translation specifications are given. The database is input to data base management system evolution (EVOL) system.

2. FORMAT

**RCV:MENU:TRANSGEN, IN "a", TRANS "b"[, HOOK "c"][, DB "d"]
[, TREE "e"][, ECHO "f"][, STDERR "g"]!**

3. EXPLANATION OF MESSAGE

- a* = Pathname of the input file that contains the software demand paging (SDP) address space that describes old and new form specifications; constructed by TREEBLD and input to TRANSGEN. See the User Guidelines in this manual for definitions of pathname and file.
- b* = Pathname of the file containing the translation specifications.
- c* = Pathname of the file of C structures to be produced by TRANSGEN and used by EVOL to invoke semantic hooks.
- d* = Pathname of the translation data base.
- e* = Pathname of the file that will contain a human-readable dump of *a* after being modified by TRANSGEN.
- f* = Pathname of the file that contains echo output of input specifications.
- g* = Pathname of the file for redirection of standard error.

4. SYSTEM RESPONSE

- OK = Good. Requested action initiated and completed.
- PF = Printout follows. Followed by the RCV-MENU output message.

5. REFERENCES

Input Messages
RCV:M;BROWSE
RCV:M;CMPRDB
RCV:M;CREATEECD
RCV:M;CREATESG
RCV:M;EVOL
RCV:M;FDIFF
RCV:M;KEYCMP
RCV:M;KEYCOMM

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RCV:M;KEYS
RCV:M;LOADF3B
RCV:M;NEWDB
RCV:M;PRINTDB
RCV:M;PRINTFRM
RCV:M;RCVECD
RCV:M;RCVSG
RCV:M;TREEBLD
RCV:M;VFYDFLT

Output Message
RCV-MENU

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ID RCV:M;TREEBLD
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Invokes a specified recent change activity; this format is used to build a tree address space given the old and new form specifications. The tree is input to TRANSGEN.

2. FORMAT

RCV:MENU:TREEBLD, OLD "a", NEW "b", OUT "c"[, TREE "d"]
[, ECHO "e"][, STDIN "f"][, STDOUT "g"][, STDERR "h"]!

3. EXPLANATION OF MESSAGE

- a* = Pathname of the file that contains old domain and form specifications. See the User Guidelines in this manual for definitions of pathname and file.
- b* = Pathname of the file that contains new domain and form specifications.
- c* = Pathname of the output file that will contain the software demand paging (SDP) address space that describes old and new form specifications; constructed by TREEBLD and input to TRANSGEN.
- d* = Pathname of the file that contains a human-readable dump of *c*.
- e* = Pathname of the file that contains echo output of input specifications.
- f* = Pathname of the file for redirection of standard input.
- g* = Pathname of the file for redirection of standard output.
- h* = Pathname of the file for redirection of standard error.

4. SYSTEM RESPONSE

- OK = Good. Requested action initiated and completed.
- PF = Printout follows. Followed by the RCV-MENU output message.

5. REFERENCES

Input Messages
RCV:M;BROWSE
RCV:M;CREATEECD
RCV:M;CREATESG
RCV:M;EVOL
RCV:M;LOADF3B

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RCV:M;RCVECD
RCF:M;RCVSG
RCV:M;TRANSGEN
RCV:M;VFYDFLT

Output Message
RCV-MENU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID RCV:M;VFYDFLT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Checks the syntax of the specified default file (corresponding to the low-level recent change and verify (RC/V) equipment configuration data base (ECD) form of the same name), and verifies the low-level field names and values contained therein are legal for that low-level form.

2. FORMAT

RCV:MENU:VFYDFLT, EFILE "a", DFILE "b"[, MDIR "c"][, DDIR "d"][STDERR="e"]!

3. EXPLANATION OF MESSAGE

- a* = Pathname of the file to which all error messages will be written.
- b* = Name of the default file to be verified. This must correspond to the name of a RC/V ECD low-level mask.
- c* = Directory in which the RC/V ECD masks are located. This is defaulted to /lla/ecdmasks.
- d* = Directory in which default file is located. This is defaulted to /lla/defaults.
- e* = Pathname of the file for re-direction of standard error.

4. SYSTEM RESPONSE

- OK = Good. Requested action initiated and completed.
- PF = Printout follows. Followed by a RCV-MENU output message.

5. REFERENCES

Input Message
RCV:M;RCVECD

Output Message
RCV-MENU

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Section 3

Input 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
ADD PAUTH	ADD:PAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ADD PCGRP	ADD:PCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ADD PROFL	ADD:PROFL	UNIX RTR R21.3, R21.11, R21.15 and later
ADD TAUTH	ADD:TAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ADD TCGRP	ADD:TCGRP	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	UNIX RTR R1.5, 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 and R6.4
ALW ERRCHK	ALW:ERRCHK-B	UNIX RTR R21.3, R21.11, R21.15 and later
ALW ERRINT	ALW:ERRINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW ERRSRC	ALW:ERRSRC	UNIX RTR R1.5, 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

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Message Name	Message ID	Generic
ALW HDWCHK	ALW:HDWCHK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
ALW REX	ALW:REX-A	UNIX RTR R1.5 and R6.4
ALW REX	ALW:REX-B	UNIX RTR R21.3, R21.11, R21.15 and later
ALW SCSD	ALW:SCSD-A	UNIX RTR R1.5 only
ALW SCSD	ALW:SCSD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
ALW SFTCHK	ALW:SFTCHK	UNIX RTR R1.5, 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
APPENDIX AUDIT	APP:AUD	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
APPLY OMDB	APPLY:OMDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD CUMEM	AUD:CUMEM-A	UNIX RTR R1.5, R6.4 and R21.3
AUD CUMEM	AUD:CUMEM-B	UNIX RTR R21.11, R21.15 and later
AUD CUSTAT	AUD:CUSTAT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD ECD	AUD:ECD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD ECDOWN	AUD:ECDOWN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD FMGR	AUD:FMGR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD FSBLK	AUD:FSBLK-A	UNIX RTR R1.5 and R6.4

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Message Name	Message ID	Generic
AUD FSBLK	AUD:FSBLK-B	UNIX RTR R21.3, R21.11, R21.15 and later
AUD FSCMPT	AUD:FSCMPT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD FSLINK	AUD:FSLINK-A	UNIX RTR R1.5 and R6.4
AUD FSLINK	AUD:FSLINK-B	UNIX RTR R21.3, R21.11, R21.15 and later
AUD MMGR	AUD:MMGR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD MSGBUF	AUD:MSGBUF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD PMS	AUD:PMS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
AUD PROAD	AUD:PROAD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CFR DUPLEXDISKS	CFR:DUPLEXDISKS	UNIX RTR R21.27 and later
CHG PAUTH	CHG:PAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
CHG PROFL	CHG:PROFL	UNIX RTR R21.3, R21.11, R21.15 and later
CLR ACKDB	CLR:ACKDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 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-A	UNIX RTR R1.5 only
CLR FANALM	CLR:FANALM-B	UNIX RTR 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:MHD;MAEC	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
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-A	UNIX RTR R1.5 and R6.4
CLR UTIL	CLR:UTIL-B	UNIX RTR R21.3, R21.11, R21.15 and later
CLR UTILFLAG	CLR:UTILFLAG-A	UNIX RTR R1.5 and R6.4
CLR UTILFLAG	CLR:UTILFLAG-B	UNIX RTR 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 and R21.3
CMPR MHD	CMPR:MHD-B	UNIX RTR R21.11 and R21.15
CMPR MHD	CMPR:MHD-C	UNIX RTR R21.17 and later
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
COPY DIFF MHD	COPY:DIFF;MHD-A	UNIX RTR R1.5, R6.4 and R21.3
COPY DIFF MHD	COPY:DIFF;MHD-B	UNIX RTR R21.11 and R21.15
COPY DIFF MHD	COPY:DIFF;MHD-C	UNIX RTR R21.17 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	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
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
DEL LOG	DEL:LOG-A	UNIX RTR R1.5 and R6.4
DEL LOG	DEL:LOG-B	UNIX RTR R21.3, R21.11, R21.15 and later
DEL PAUTH	DEL:PAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DEL PCGRP	DEL:PCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DEL PROFL	DEL:PROFL	UNIX RTR R21.3, R21.11, R21.15 and later
DEL TAUTH	DEL:TAUTH	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DEL TCGRP	DEL:TCGRP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN CU	DGN:CU	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	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 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

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Message Name	Message ID	Generic
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	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
DGN SCSDC	DGN:SCSDC	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
DUMP FILE DATA	DUMP:F;DATA	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
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-A	UNIX RTR R1.5, R6.4 and R21.3
DUMP FILE PARTL	DUMP:F;PARTL-B	UNIX RTR 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	DUMP:MHD;BLK-A	UNIX RTR R1.5 only
DUMP MHD	DUMP:MHD;BLK-B	UNIX RTR R6.4, 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 and later
DUMP MHD	DUMP:MHD;VTO	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
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, 21.11, 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 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
END WHEN	END:WHEN	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, R21.11, 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
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

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Message Name	Message ID	Generic
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, R21.15 and 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	UNIX RTR R21.3, R21.11, R21.15 and later
EXC UCL	EXC:UCL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN DTIME	IN:DTIME	UNIX RTR R1.5, R6.4, R21.3, R21.11, 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 FILESYS DIR	IN:F;DIR	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 REMOTE REPT	IN:REM;REPT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE START	IN:REM;START	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN REMOTE STOP	IN:REM;STOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
IN STIME	IN:STIME	UNIX RTR R1.5 only
IN XFER	IN:XFER	UNIX RTR R21.11, R21.15 and later

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Message Name	Message ID	Generic
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 and R6.4
INH ERRCHK	INH:ERRCHK-B	UNIX RTR R21.3, R21.11, R21.15 and later
INH ERRINT	INH:ERRINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH ERRSRC	INH:ERRSRC	UNIX RTR R1.5, 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	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
INH REX	INH:REX-A	UNIX RTR R1.5 and R6.4
INH REX	INH:REX-B	UNIX RTR R21.3, R21.11, R21.15 and later
INH SCSD	INH:SCSD-A	UNIX RTR R1.5 only
INH SCSD	INH:SCSD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
INH SFTCHK	INH:SFTCHK	UNIX RTR R1.5, R6.4, R21.3, 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, R21.3, R21.11, R21.15 and later
INIT UC	INIT:UC-A	UNIX RTR R1.5 and R6.4
INIT UC	INIT:UC-B	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

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Message Name	Message ID	Generic
INIT UMEM INIT UMEM	INIT:UMEM-A INIT:UMEM-B	UNIX RTR R1.5 only 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, R21.3 and R21.11
LOAD DFC PUMP	LOAD:DFC;PUMP-B	UNIX RTR R21.15 and later
LOAD DFC RAM	LOAD:DFC;RAM	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
LOAD MHD DEFECT	LOAD:MHD-A	UNIX RTR R1.5 only
LOAD MHD DEFECT	LOAD:MHD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
LOAD MHD FIRMWARE	LOAD:MHD;FIRM	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
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, R21.3, R21.11, R21.15 and later
OP AUDERR	OP:AUDERR	UNIX RTR R1.5, R6.4, 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 R6.4 only
OP DFC INFO	OP:DFC;INFO-B	UNIX RTR R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
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
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	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP GEN	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	UNIX RTR R1.5, R6.4, 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, R21.3, R21.11, R21.15 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
OP OOS	OP:OOS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP PMCR	OP:PMCR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
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-A	UNIX RTR R1.5 only
OP SCSD	OP:SCSD-B	UNIX RTR 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 STATUS 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
OP UTIL	OP:UTIL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
OP VERSION	OP:VERSION	UNIX RTR R21.11, R21.15 and later

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Message Name	Message ID	Generic
ORD SCSD ORD SCSD	ORD:SCSD-A ORD:SCSD-B	UNIX RTR R1.5 only UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
RCV DMTECD RC	RCV:DMTE;RC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTECD VFY	RCV:DMTE;VFY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTSG RC	RCV:DMTS;RC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV DMTSG VFY	RCV:DMTS;VFY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU BROWSE	RCV:M;BROWSE	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU COMPAREDB	RCV:M;CMPRDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU CREATEECD	RCV:M;CREATEECD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU CREATESG	RCV:M;CREATESG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU EVOL	RCV:M;EVOL	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU FDIFF	RCV:M;FDIFF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU KEYCMP	RCV:M;KEYCMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU KEYCOMM	RCV:M;KEYCOMM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU KEYS	RCV:M;KEYS	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU LOADF3B	RCV:M;LOADF3B	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU NEWDB	RCV:M;NEWDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU PRINTDB	RCV:M;PRINTDB	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU PRINTFRM	RCV:M;PRINTFRM	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU RCVECD	RCV:M;RCVECD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU RCVSG	RCV:M;RCVSG	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
RCV MENU TRANSGEN	RCV:M;TRANSGEN	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU TREEBLD	RCV:M;TREEBLD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RCV MENU VFYDFLT	RCV:M;VFYDFLT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RFT ABORT	RFT:ABORT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RFT BEGINPOST	RFT:BEGINPOST	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RFT FDUMP	RFT:FDUMP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RFT PRINT	RFT:PRINT	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
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-A	UNIX RTR R1.5 only
RMV DFC	RMV:DFC-B	UNIX RTR 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 R1.5 only
RMV MHD	RMV:MHD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
RMV MT	RMV:MT	UNIX RTR R1.5, R6.4, 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

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Message Name	Message ID	Generic
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	UNIX RTR R6.4, R21.3, R21.11, 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
RMV TTY	RMV:TTY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RMV TTYC	RMV:TTYC	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RNM PSSWD	RNM:PSSWD	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, R21.11, R21.15 and later
RST DFC	RST:DFC-A	UNIX RTR R1.5 only
RST DFC	RST:DFC-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later
RST DUI	RST:DUI	UNIX RTR R1.5, R6.4, R21.3, R21.11, R1.15 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, R21.15 and later
RST IOP	RST:IOP	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
RST MHD	RST:MHD-A	UNIX RTR R1.5 only
RST MHD	RST:MHD-B	UNIX RTR R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
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	UNIX RTR R6.4, 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
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-A	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 thru R21.27
SET CLK	SET:CLK-B	UNIX RTR R21.29 and later
SET IODRV	SET:IODRV-A	UNIX RTR R1.5 and R6.4
SET IODRV	SET:IODRV-B	UNIX RTR R21.3, R21.11, R21.15 and later
STOP AUD	STOP:AUD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP BKDISK	STOP:BKDISK	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP CMPR MHD	STOP:CMPR;MHD	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later

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Message Name	Message ID	Generic
STOP COPY DIFF	STOP:COPY;DIFF	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP DCI	STOP:DCI	UNIX RTR R21.3, 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:E;ANY	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
STOP EXC USER	STOP:E;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
SW CU	SW:CU	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
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 ACKU	TST:ACKU	UNIX RTR R1.5 only
TST ALT	TST:ALT	UNIX RTR R1.5 only
TST SHL	TST:SHL	UNIX RTR R1.5 only
TST SPL	TST:SPL	UNIX RTR R1.5 only
UPD APPLY BYTER	UPD:APPLY;BYTER-A	UNIX RTR R1.5, R6.4 and R21.3
UPD APPLY BYTER	UPD:APPLY;BYTER-B	UNIX RTR R21.11, R21.15 and later
UPD APPLY FILER	UPD:APPLY;FILER-A	UNIX RTR R1.5, R6.4 and R21.3
UPD APPLY FILER	UPD:APPLY;FILER-B	UNIX RTR R21.11, R21.15 and later
UPD APPLY FUNCRC	UPD:APPLY;FUNCRC-A	UNIX RTR R1.5, R6.4 and R21.3
UPD APPLY FUNCRC	UPD:APPLY;FUNCRC-B	UNIX RTR R21.11, R21.15 and later
UPD APPLY UNIXCMD	UPD:APPLY;UNIX	UNIX RTR R21.11, R21.15 and later
UPD AUTO	UPD:AUTO	UNIX RTR R21.11, R21.15 and later
UPD AUTOCHK	UPD:AUTOCHK	UNIX RTR R21.11, R21.15 and later

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Message Name	Message ID	Generic
UPD AUTOPROFILE	UPD:AUTOPROFILE	UNIX RTR R21.11, R21.15 and later
UPD AUTOSCHED	UPD:AUTOSCHED	UNIX RTR R21.11, R21.15 and later
UPD BKOUT	UPD:BKOUT-A	UNIX RTR R1.5, R6.4 and R21.3
UPD BKOUT	UPD:BKOUT-B	UNIX RTR R21.11, R21.15 and later
UPD BLDBOOT	UPD:BLDBOOT-A	UNIX RTR R1.5, R6.4 and R21.3
UPD BLDBOOT	UPD:BLDBOOT-B	UNIX RTR R21.11, R21.15 and later
UPD BLOCK	UPD:BLOCK	UNIX RTR R21.11, R21.15 and later
UPD BOLO	UPD:BOLO	UNIX RTR R21.11, R21.15 and later
UPD CHG APPLY	UPD:CHG;APPLY	UNIX RTR R21.11, R21.15 and later
UPD CHG BKOUT	UPD:CHG;BKOUT	UNIX RTR R21.11, R21.15 and later
UPD CHG INST	UPD:CHG;INST	UNIX RTR R21.11, R21.15 and later
UPD CHG SKTM	UPD:CHG;SKTM	UNIX RTR R21.11, R21.15 and later
UPD CLR	UPD:CLR-A	UNIX RTR R1.5, R6.4 and R21.3
UPD CLR	UPD:CLR-B	UNIX RTR R21.11, R21.15 and later
UPD CLRBWM	UPD:CLRBWM	UNIX RTR R21.11, R21.15 and later
UPD CSCANS REPORT	UPD:CSCANS;REPT	UNIX RTR R21.11, R21.15 and later
UPD CSCANS STOP	UPD:CSCANS;STOP	UNIX RTR 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 DISPLYUPD	UPD:DISPLYUPD	UNIX RTR R21.11, R21.15 and later
UPD EXALL	UPD:EXALL	UNIX RTR R21.11, R21.15 and later

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Message Name	Message ID	Generic
UPD EXNXT	UPD:EXNXT	UNIX RTR R21.11, R21.15 and later
UPD EXPAND	UPD:EXPAND	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, R21.15 and later
UPD GEN RESTORE	UPD:G;RESTR	UNIX RTR R1.5, R6.4, R21.3, R21.11, R21.15 and later
UPD GENP	UPD:GENP	UNIX RTR R21.11, R21.15 and later
UPD INITPW	UPD:INITPW	UNIX RTR R21.11, R21.15 and later
UPD NXTWNDW	UPD:NXTWNDW	UNIX RTR R21.11, R21.15 and later
UPD OFC	UPD:OFC	UNIX RTR 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 PRINT	UPD:PRINT	UNIX RTR R21.11, R21.15 and later
UPD PRINT BWMFILE	UPD:PRINT;BWM	UNIX RTR R21.11, R21.15 and later
UPD PRINT SKTM	UPD:PRINT;SKTM	UNIX RTR R21.11, R21.15 and later
UPD PRVWNDW	UPD:PRVWNDW	UNIX RTR R21.11, R21.15 and later
UPD PURGE	UPD:PURGE	UNIX RTR R1.5, R6.4 and R21.3
UPD RCVRY	UPD:RCVRY	UNIX RTR R21.11, R21.15 and later
UPD REBOOT	UPD:REBOOT	UNIX RTR R21.11, R21.15 and later
UPD RECLAIM	UPD:RECLAIM	UNIX RTR R1.5, R6.4 and R21.3

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Message Name	Message ID	Generic
UPD RECOVERY	UPD:RECOVERY	UNIX RTR R21.11, R21.15 and later
UPD REDUCE	UPD:REDUCE	UNIX RTR R21.11, R21.15 and later
UPD RESET	UPD:RESET-A	UNIX RTR R1.5, R6.4 and R21.3
UPD RESET	UPD:RESET-B	UNIX RTR R21.11, R21.15 and later
UPD START EASYBWM	UPD:START;EASY	UNIX RTR R21.11, R21.15 and later
UPD STOP EXC	UPD:STOP;EXC	UNIX RTR R21.11, R21.15 and later
UPD STOP SOAK	UPD:STOP;SOAK	UNIX RTR R21.11, R21.15 and later
UPD UPDCON	UPD:UPDCON	UNIX RTR R21.11, R21.15 and later
UPD UPDDSPY	UPD:UPDDSPY	UNIX RTR R21.11, R21.15 and later
UPD UPNAME	UPD:UPNAME	UNIX RTR R21.11, R21.15 and later
UPD VERSION	UPD:VERSION	UNIX RTR R21.11, R21.15 and later
UPD VFY	UPD:VFY-A	UNIX RTR R1.5, R6.4 and R21.3
UPD VFY	UPD:VFY-B	UNIX RTR R21.11, R21.15 and later
UPD VFYBWM	UPD:VFYBWM	UNIX RTR R21.11, R21.15 and later
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, R21.3, R21.11, R21.15 and later
VFY PAUTH	VFY:PAUTH-A	UNIX RTR R1.5 and R6.4
VFY PAUTH	VFY:PAUTH-B	UNIX RTR 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

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Message Name	Message ID	Generic
VFY TAPE	VFY:TAPE-B	UNIX RTR R21.15 and later
VFY TAUTH	VFY:TAUTH	UNIX RTR R1.5, R6.4, R21.3, R2.11, 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 RFT:ABORT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Aborts the current generic retrofit procedural process.

2. FORMAT

RFT:ABORT!

3. EXPLANATION OF MESSAGE

All internal knowledge of retrofit steps and their status is removed from the retrofit process.

The user may now re-enter the retrofit process at the initial starting point.

NOTE: No backout of steps is done.

4. SYSTEM RESPONSE

None.

5. REFERENCES

Input Messages
RFT:BEGINPOST

Practice 254-301-825 *Retrofit Procedures DMERT Generic 2 - UNIX® RTR Release 1*
Lucent Technologies 3B20D Model 1 Computer

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ID RFT:BEGINPOST
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Invokes the generic retrofit process from the ending generic.

2. FORMAT

RFT:BEGINPOST, TYPE "2.3"!

3. EXPLANATION OF MESSAGE

This entry step initializes the retrofit process by loading the stepfile and supfile. A snapshot copy of the disk **stepfile** and **supfile** is made by the retrofit process to prevent changes being made to these files while the retrofit procedure is being performed. In addition, internal process tables are also initialized. (**BEGINPRE** and **BEGINPOST** are essentially the same step with different names.)

4. SYSTEM RESPONSE

None.

5. REFERENCES

Input Messages
RFT:ABORT

Practice 254-301-825 *Retrofit Procedures DMERT Generic 2 - UNIX® RTR Release 1*
Lucent Technologies 3B20D Model 1 Computer

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ID RFT:FDUMP
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Dumps the contents of a file.

2. FORMAT

RFT:FDUMP, FILE "a"

3. EXPLANATION OF MESSAGE

a = Pathname of the file. The pathname is a list of the names of each directory leading to the file, and ends with the name of the specific file. Each name begins with a slash, and the entire pathname is enclosed in quotation marks. For example, /usr/a1/ssw/test means that /usr/a1/ssw represents the list of directory names and /test represents the file name.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the RFT-FDUMP output message.

5. REFERENCES

Output Message
RFT-FDUMP

Practice 254-301-825 *Retrofit Procedures DMERT Generic 2 - UNIX® RTR Release 1*
Lucent Technologies 3B20D Model 1 Computer

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ID RFT:PRINT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Prints the named step or supplemental instruction file of the generic retrofit procedural process.

2. FORMAT

RFT:PRINT, {STEP|SUP} a[, FORWARD|BACKWARD]!

3. EXPLANATION OF MESSAGE

a = Stepname or supname.

NOTE: FORWARD or BACKWARD valid only if STEP used.

The lines of the specified step (stepname) or supplemental instruction (supname) file are displayed.

If only stepname is specified, the default direction is the FORWARD direction.

4. SYSTEM RESPONSE

None.

5. REFERENCES

Input Messages
RFT:FDUMP

Practice 254-301-825 *Retrofit Procedures DMERT Generic 2 - UNIX® RTR Release 1*
Lucent Technologies 3B20D Model 1 Computer

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ID RMV:CU
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Removes the specified control unit (CU) from service (for example, from the standby state to the out-of-service state).

2. FORMAT

RMV:CU *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0 or 1).

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the RMV-CU output message.

RL = Retry later. The system is in overload condition.

?D = General syntax error in the data field, followed by the parameter position and the following reason.

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

?E = Input error of undetermined type.

?I = General syntax error, followed by the parameter position and one of the following reasons.

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

MISSING KEYWORD - A required keyword is missing from the input.

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Messages
DGN:CU
RST:CU

Output Message
RMV-CU

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ID RMV:DCI
GENERIC UNIX RTR R21.3, R21.15
and later
TYPE Input

1. PURPOSE

Removes the specified dual serial channel / computer interconnect (DCI) from service.

2. FORMAT

RMV:DCI *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a RMV-DCI output message.
- RL = Retry later. The system is in overload condition.
- ?D = General syntax error in the data field, followed by the parameter position and the following reason.
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)
DGN:DCI
RST:DCI

Output Message(s)
DGN-DCI
RMV-DCI
RST-DCI

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ID RMV:DFC-A
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Removes the specified disk file controller (DFC) and any associated moving head disks (MHDs) from service.

2. FORMAT

RMV:DFC *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-7).

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by a RMV-DFC output message.

RL = Retry Later. The system is in overload condition.

?D = General syntax error in the data field, followed by the parameter position and the following reason.

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

?E = Input error of undetermined type.

?I = General syntax error, followed by the parameter position and one of the following reasons.

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

MISSING KEYWORD - A required keyword is missing from the input.

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)

DGN:DFC

DGN:MHD

RMV:MHD

RST:DFC

RST:MHD

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Output Message(s)

DGN-DFC

DGN-MHD

RMV-DFC

RMV-MHD

RST-DFC

RST-MHD

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ID RMV:DFC-B
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Removes the specified disk file controller (DFC) and any associated moving head disks (MHDs) from service. For small computer system interface (SCSI) DFC, this command also removes any SCSI bus (SBUS) connected to the specified DFC.

2. FORMAT

RMV:DFC *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-7).

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a RMV-DFC output message.

5. REFERENCES

Input Message(s)

DGN:DFC
DGN:MHD
RMV:MHD
RMV:SBUS
RST:DFC
RST:MHD
RST:SBUS

Output Message(s)

DGN-DFC
DGN-MHD
RMV-DFC
RMV-MHD
RMV-SBUS
RST-DFC
RST-MHD
RST-SBUS

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ID RMV:DUI
GENERIC UNIX RTR R1.5, R6.4,
R21.3 and later
TYPE Input

1. PURPOSE

Removes the specified direct user interface (DUI) from service.

2. FORMAT

RMV:DUI *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a RMV-DUI output message.

RL = Retry later. The system is in overload condition.

?D = General syntax error in the data field, followed by the parameter position and the following reason.

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

?E = Input error of undetermined type.

?I = General syntax error, followed by the parameter position and one of the following reasons:

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

MISSING KEYWORD - A required keyword is missing from the input.

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)
DGN:DUIC
RMV:DUIC
RST:DUI
RST:DUIC

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Output Message(s)

DGN-DUIC

RMV-DUI

RMV-DUIC

RST-DUI

RST-DUIC

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ID RMV:DUIC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Removes the specified direct user interface controller (DUIC) from service.

2. FORMAT

RMV:DUIC *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a RMV-DUIC output message.

RL = Retry later. The system is in overload condition.

?D = General syntax error in the data field, followed by the parameter position and the following reason.

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

?E = Input error of undetermined type.

?I = General syntax error, followed by the parameter position and one of the following reasons:

EXTRA KEYWORD - Duplicate or extraneous keywords were input.

MISSING KEYWORD - A required keyword is missing from the input.

INVALID KEYWORD - The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)
DGN:DUIC
DGN:IOP
RMV:IOP
RST:DUIC
RST:IOP

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Output Message(s)

DGN-DUIC
DGN-IOP
RMV-DUIC
RMV-IOP
RST-DUIC
RST-IOP

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ID RMV:HSD
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Removes the specified high-speed synchronous data link (HSD) subdevice from service.

2. FORMAT

RMV:HSD *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a RMV-HSD output message.
- RL = Retry later. The system is in overload condition.
- ?D = General syntax error in the data field, followed by the parameter position and the following reason.
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)
DGN:HSDC
RMV:HSDC
RST:HSD
RST:HSDC

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Output Message(s)

DGN-HSDC

RMV-HSD

RMV-HSDC

RST-HSD

RST-HSDC

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ID RMV:HSDC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Removes the specified high-speed synchronous data link controller (HSDC) from service.

2. FORMAT

RMV:HSDC *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a RMV-HSDC output message.
- RL = Retry later. The system is in overload condition.
- ?D = General syntax error in the data field, followed by the parameter position and the following reason.
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)
DGN:HSDC
RMV:HSD
RST:HSD
RST:HSDC

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Output Message(s)

DGN-HSDC

RMV-HSD

RMV-HSDC

RST-HSD

RST-HSDC

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ID RMV:IOP
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Removes the specified input/output processor (IOP) and any associated peripheral controllers (PCs) from service.

2. FORMAT

RMV:IOP *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-15).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a RMV-IOP output message.
- RL = Retry later. The system is in overload condition.
- ?D = General syntax error in the data field, followed by the parameter position and the following reason.
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)
DGN:IOP
RST:IOP

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Output Message(s)

DGN - IOP

RMV - IOP

RST - IOP

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ID RMV:MHD-A
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Removes the specified moving head disk (MHD) from service.

2. FORMAT

RMV:MHD *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a RMV-MHD output message.
- RL = Retry later. The system is in overload condition.
- ?D = General syntax error in the data field, followed by the parameter position and the following reason.
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

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5. REFERENCES

Input Message(s)

DGN : DFC
DGN : MHD
RMV : DFC
RST : DFC
RST : MHD

Output Message(s)

DGN - DFC
DGN - MHD
RMV - DFC
RMV - MHD
RST - DFC
RST - MHD

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ID RMV:MHD-B
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21,15 and later
TYPE Input

1. PURPOSE

Requests that the specified moving head disk (MHD) be removed from service.

2. FORMAT

RMV:MHD *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a RMV-MHD output message.

5. REFERENCES

Input Message(s)

DGN:DFC
DGN:MHD
RMV:DFC
RMV:SBUS
RST:DFC
RST:MHD
RST:SBUS

Output Message(s)

DGN-DFC
DGN-MHD
RMV-DFC
RMV-MHD
RMV-SBUS
RST-DFC
RST-MHD
RST-SBUS

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ID RMV:MT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Removes the specified magnetic tape (MT) device from service.

2. FORMAT

RMV:MT *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a RMV-MT output message.
- RL = Retry later. The system is in overload condition.
- ?D = General syntax error in the data field, followed by the parameter position and the following reason.
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)
RMV:MTC
RST:MT
RST:MTC

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Output Message(s)

RMV-MT
RMV-MTC
RST-MT
RST-MTC

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ID RMV:MTC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Removes the specified magnetic tape controller (MTC) and any associated magnetic tape drives from service.

2. FORMAT

RMV:MTC *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a RMV-MTC output message.
- RL = Retry later. The system is in overload condition.
- ?D = General syntax error in the data field, followed by the parameter position and the following reason.
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)
DGN:IOP
DGN:MTC
RMV:IOP
RST:IOP
RST:MTC

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Output Message(s)

DGN-IOP

DGN-MTC

RMV-IOP

RMV-MTC

RST-IOP

RST-MTC

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ID RMV:MTTY
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Removes the specified maintenance teletypewriter (MTTY) from service.

2. FORMAT

RMV:MTTY *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a RMV-MTTY output message.
- RL = Retry later. The system is in overload condition.
- ?D = General syntax error in the data field, followed by the parameter position and the following reason.
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)
DGN:MTTYC
RST:MTTY
RST:MTTYC

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Output Message(s)

DGN-MTTYC

RMV-MTTY

RMV-MTTYC

RST-MTTY

RST-MTTYC

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ID RMV:MTTYC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Removes the specified maintenance teletypewriter controller (MTTYC) and all associated maintenance teletypewriters, receive-only printers (ROPs), and switching control center (SCC) data link devices from service.

2. FORMAT

RMV:MTTYC *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a RMV-MTTYC output message.

RL = Retry later. The system is in overload condition.

?D = General syntax error in the data field, followed by the parameter position and the following reason.

- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

?E = Input error of undetermined type.

?I = General syntax error, followed by the parameter position and one of the following reasons.

- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
- MISSING KEYWORD
A required keyword is missing from the input.
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)
DGN:IOP
DGN:MTTYC
RMV:IOP
RST:IOP
RST:MTTYC

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Output Message(s)

DGN-IOP
DGN-MTTYC
RMV-IOP
RMV-MTTYC
RST-IOP
RST-MTTYC

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ID RMV:ROP
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Removes the specified receive-only printer (ROP) from service.

2. FORMAT

RMV:ROP *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a RMV-ROP output message.
- RL = Retry later. The system is in overload condition.
- ?D = General syntax error in the data field, followed by the parameter position and the following reason.
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)
DGN:MTTYC
RMV:MTTYC
RST:MTTYC
RST:ROP

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Output Message(s)

DGN-MTTYC

RMV-MTTYC

RMV-ROP

RST-MTTYC

RST-ROP

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ID RMV:SBUS
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Removes the specified small computer system interface (SCSI) bus (SBUS) connected to a SCSI disk file controller (DFC). The message also removes from service any moving head disk (MHD) attached to the specified SCSI bus.

2. FORMAT

RMV:SBUS *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255). Use the OP:DFC or MHD:INFO message or the disk file system access page (DAP) to determine the member number of this SBUS unit.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by a RMV-SBUS output message.

5. REFERENCES

Input Messages

OP:DFC;INFO
RMV:DFC
RMV:MHD

Output Messages

OP-MHD,INFO
RMV-DFC
RMV-MHD
RMV-SBUS
RST-DFC
RST-MHD
RST-SBUS

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ID RMV:SCC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Removes the specified Switching Control Center (SCC) data link subdevice from service.

NOTE: The mate unit of the specified SCC data link subdevice must be in service.

2. FORMAT

RMV:SCC *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a RMV-SCC output message.
- RL = Retry later. The system is in overload condition.
- ?D = General syntax error in the data field, followed by the parameter position and the following reason.
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)
DGN:MTTYC
RMV:MTTYC
RST:MTTYC
RST:SCC

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Output Message(s)

DGN-MTTYC

RMV-MTTYC

RMV-SCC

RST-MTTYC

RST-SCC

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ID RMV:SCSDC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Removes the specified scanner and signal distributor controller (SCSDC) from service.

2. FORMAT

RMV:SCSDC *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a RMV-SCSDC output message.
- RL = Retry later. The system is in overload condition.
- ?D = General syntax error in the data field, followed by the parameter position and the following reason.
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)
DGN:IOP
DGN:SCSDC
RMV:IOP
RST:IOP
RST:SCSDC

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Output Message(s)

DGN-IOP
DGN-SCSDC
RMV-IOP
RMV-SCSDC
RST-IOP
RST-SCSDC

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ID RMV:SDL
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Removes the specified synchronous data link (SDL) subdevice from service.

2. FORMAT

RMV:SDL *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a RMV-SDL output message.
- RL = Retry later. The system is in overload condition.
- ?D = General syntax error in the data field, followed by the parameter position and the following reason.
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)
DGN:SDLC
RMV:SDLC
RST:SDL
RST:SDLC

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Output Message(s)

DGN-SDLC

RMV-SDL

RMV-SDLC

RST-SDL

RST-SDLC

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ID RMV:SDLC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Removes the specified synchronous data link controller (SDLC) from service.

2. FORMAT

RMV:SDLC *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a RMV-SDLC output message.
- RL = Retry later. The system is in overload condition.
- ?D = General syntax error in the data field, followed by the parameter position and the following reason.
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)
DGN:SDLC
RMV:SDL
RST:SDL
RST:SDLC

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Output Message(s)

DGN-SDLC

RMV-SDL

RMV-SDLC

RST-SDL

RST-SDLC

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ID RMV:TTY
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Removes the specified teletypewriter (TTY) from service.

2. FORMAT

RMV:TTY *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a RMV-TTY output message.
- RL = Retry later. The system is in overload condition.
- ?D = General syntax error in the data field, followed by the parameter position and the following reason.
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)
DGN:TTYC
RMV:TTYC
RST:TTY
RST:TTYC

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Output Message(s)

DGN-TTYC

RMV-TTY

RMV-TTYC

RST-TTY

RST-TTYC

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ID RMV:TTYC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Removes the specified teletypewriter controller (TTYC) and any associated teletypewriters from service.

2. FORMAT

RMV:TTYC *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a RMV-TTYC output message.
- RL = Retry later. The system is in overload condition.
- ?D = General syntax error in the data field, followed by the parameter position and the following reason.
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)
DGN:IOP
DGN:TTYC
RMV:IOP
RST:IOP
RST:TTYC

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Output Message(s)

DGN-IOP
DGN-TTYC
RMV-IOP
RMV-TTYC
RST-IOP
RST-TTYC

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ID RNM:PSSWD
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Allows a user to change the password suffix.

2. FORMAT

RNM:PSSWD:PSSWDPFX "a",OLDSFX "b",NEWSFX "c"!

3. EXPLANATION OF MESSAGE

- a* = Password prefix (PSSWDPFX) in three letters and/or digits.
- b* = Old suffix (OLDSFX) of the person's password, in one to 13 characters.
- c* = New suffix (NEWSFX) of the person's password, in one to 13 characters.

4. SYSTEM RESPONSE

- OK = Good. Change to password suffix made.
- RL = Retry later.
 - AUTHORITY ADMINISTRATION UNDER UPDATE
Authority information is currently being updated.
- NG = No good. Includes one of the following.
 - PASSWORD PREFIX AND/OR OLD SUFFIX INCORRECT
A non-existent password prefix and/or suffix was used.
 - UNABLE TO ACCESS AUTHORITY ADMINISTRATION
Password authority information is inaccessible.

5. REFERENCES

Input Messages
ADD:PAUTH
CHG:PAUTH
DEL:PAUTH
VFY:PAUTH

Output Message
VFY-PAUTH

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ID RST:CU
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Restores a computer control unit (CU) to standby status. If restored conditionally, a complete CU diagnostic will be run and must be all tests pass (ATP) before the unit is restored to service. If restored unconditionally, no testing is performed.

2. FORMAT

RST:CU *a*[[;**UCL**]|[;**RAW**][:**TLP**]]!

3. EXPLANATION OF MESSAGE

- a* = Member number (0 or 1).
- UCL** = Restore unconditionally.
(The default is conditional restoration).
- RAW** = Print the diagnostic results of every phase. Default is the first five failures of each failing phase.
- TLP** = Execute the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters should not be used together, as no testing is performed on an unconditional restore.

4. SYSTEM RESPONSE

- PF** = Printout follows. Followed by an RST-CU output message.
- RL** = Retry later. The system is in overload condition.
- ?D** = General syntax error in the data field, followed by the parameter position and one of the following reasons.
 - **EXTRA KEYWORD**
Duplicate or extraneous keywords were input.
 - **INVALID KEYWORD**
The keyword in the stated parameter position is not a valid keyword.
- ?E** = Input error of undetermined type.
- ?I** = General syntax error, followed by the parameter position and one of the following reasons.
 - **EXTRA KEYWORD**
Duplicate or extraneous keywords were input.

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- MISSING KEYWORD
A required keyword is missing from the input.
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)

DGN:CU
RMV:CU

Output Message(s)

ANALY-TLPFILE
DGN-CU
RMV-CU
RST-CU

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ID RST:DCI
GENERIC UNIX RTR R21.3,
R21.11,R21.15 and later
TYPE Input

1. PURPOSE

Restores a dual serial channel/computer interconnect (DCI), conditionally or unconditionally to service. If restored conditionally, a DCI diagnostic will be run and must be all tests pass (ATP) before the unit will be restored to service. If restored unconditionally, no testing will be performed.

2. FORMAT

RST:DCI *a*[[**UCL**]|[**RAW**][:**TLP**]]!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).
UCL = Restore unconditionally. (Default is conditional restoration).
RAW = Print the diagnostic results of every phase. (The default is to print the first five failures of each failing phase).
TLP = Execute the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters should not be used together, as no testing is performed on an unconditional restore.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by an RST-DCI output message.
RL = Retry later. The system is in overload condition.
?D = General syntax error in the data field, followed by the parameter position and one of the following reasons.
— **EXTRA KEYWORD**
Duplicate or extraneous keywords were input.
— **INVALID KEYWORD**
The keyword in the stated parameter position is not a valid keyword.
?E = Input error of undetermined type.
?I = General syntax error, followed by the parameter position and one of the following reasons.
— **EXTRA KEYWORD**
Duplicate or extraneous keywords were input.

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- MISSING KEYWORD
A required keyword is missing from the input.
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)

DGN:DCI
RMV:DCI

Output Message(s)

ANALY-TLPFILE
DGN-DCI
RMV-DCI
RST-DCI

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ID RST:DFC-A
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Restores a disk file controller (DFC), conditionally or unconditionally, to service. If restored conditionally, a DFC diagnostic will be run and must be all tests pass (ATP) before the unit will be restored to service. If restored unconditionally, no testing will be performed.

2. FORMAT

RST:DFC *a*[[;**UCL**][:**CONT**]]|[:**RAW**][:**TLP**][:**CONT**][:**CU** *b*]]!

3. EXPLANATION OF MESSAGE

- a* = Member number (0-7).
- UCL** = Restore unconditionally.
(The default is conditional restoration).
- RAW** = Print the diagnostic results of every phase. (The default is to print the first five failures of each failing phase).
- TLP** = Execute the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.
- NOTE:** The TLP and UCL parameters should not be used together since no testing is performed on an unconditional restore.
- CONT** = Restore only the DFC. (The default is to restore the DFC and all associated moving head disks [MHDs]).
- b* = Specified helper unit, required for some diagnostic phases. An entry in the data field other than a keyword or keyword parameter is the specified helper unit. When a helper unit is not required, the specified helper unit is ignored. When a helper unit is required but the specified helper unit is inappropriate or unavailable, the helper unit dependent tests are skipped.

NOTE: The helper CU must be out-of-service (OOS) and must be diagnosed as ATP before it is used as a helper unit.

4. SYSTEM RESPONSE

- PF** = Printout follows. Followed by an RST-DFC output message.
- RL** = Retry later. The system is in overload condition.
- ?D** = General syntax error in the data field, followed by the parameter position and one of the following reasons.

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- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)

DGN:DFC
RMV:DFC
RMV:MHD
RST:MHD

Output Message(s)

ANALY-TLPFILE
DGN-DFC
RMV-DFC
RMV-MHD
RST-DFC
RST-MHD

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ID RST:DFC-B
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Restores a disk file controller (DFC), conditionally or unconditionally, to service. If restored conditionally, a DFC diagnostic will be run and must be all tests passed (ATP) before the unit will be restored to service. If restored unconditionally, no testing will be performed.

2. FORMAT

RST:DFC *a*[[**UCL**][**:CONT**]]|[[**RAW**][**:TLP**][**,CONT**][**,CU** *b*]]!

3. EXPLANATION OF MESSAGE

- a* = Member number (0-7).
- UCL** = Restore unconditionally.
(The default is conditional restoration).
- RAW** = Print the diagnostic results of every phase. (The default is to print the first five failures of each failing phase).
- TLP** = Execute the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.
- NOTE:** The TLP and UCL parameters should not be used together, as no testing is performed on an unconditional restore.
- CONT** = Restores only the DFC. The default is to restore the DFC, all the SBUSs connected to this DFC and all associated moving head disks (MHDs).
- b* = Member number of the CU helper unit (0 or 1). When a helper unit is not required, the specified helper unit is ignored. When a helper unit is required but the specified helper unit is inappropriate or unavailable, the helper unit dependent tests are skipped. This off-line CU is required as a helper unit when demand phase 15 is executed.

NOTE: The helper CU must be out-of-service (OOS) and must be diagnosed as ATP before it is used as a helper unit.

4. SYSTEM RESPONSE

- PF** = Printout follows. Followed by an RST-DFC output message.
- RL** = Retry later. The system is in an overload condition.

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5. REFERENCES

Input Message(s)

DGN:DFC
RMV:DFC
RMV:MHD
RMV:SBUS
RST:MHD
RST:SBUS

Output Message(s)

ANALY-TLPFILE
DGN-DFC
RMV-DFC
RMV-MHD
RMV-SBUS
RST-DFC
RST-MHD
RST-SBUS

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ID RST:DUI
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Restores a direct user interface (DUI) device to service. DUI is a subdevice of the DUI controller (DUIC). Restoring a DUI by using RST:DUI *a*! has the same effect as using RST:DUI *a*; UCL!

NOTE: The input/output processor (IOP) and the DUIC must be in service before the DUI can be restored.

2. FORMAT

RST:DUI *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by an RST-DUI output message.
- RL = Retry later. The system is in overload condition.
- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

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5. REFERENCES

Input Message(s)

RMV:DUI
RMV:DUIC
RMV:IOP
RST:DUIC
RST:IOP

Output Message(s)

RMV-DUI
RMV-DUIC
RMV-IOP
RST-DUI
RST-DUIC
RST-IOP

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ID RST:DUIC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Restores a direct user interface controller (DUIC), conditionally or unconditionally, to service. If restored conditionally, a DUIC diagnostic will be run and must be all tests pass (ATP) before the unit will be restored to service. If restored unconditionally, no testing will be performed.

NOTE: The input/output processor (IOP) must be in service before the DUIC can be restored.

2. FORMAT

RST:DUIC *a*[[;**UCL**][:**CONT**]]|[:**RAW**][:**TLP**][:**CONT**]]!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).
UCL = Restore unconditionally. (The default is conditional restoration).
CONT = Restore only the DUIC. (The default is to restore the DUIC and all associated DUIs).
RAW = Print the diagnostic results of every phase. (The default is to print the first five failures of each failing phase).
TLP = Execute the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters should not be used together since no testing is performed on an unconditional restore.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by an RST-DUIC output message.
RL = Retry later. The system is in overload condition.
?D = General syntax error in the data field, followed by the parameter position and one of the following reasons.
— **EXTRA KEYWORD**
Duplicate or extraneous keywords were input.
— **INVALID KEYWORD**
The keyword in the stated parameter position is not a valid keyword.

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- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)

DGN:DUIC
DGN:IOP
RMV:DUIC
RMV:IOP
RST:IOP

Output Message(s)

ANALY-TLPFILE
DGN-DUIC
DGN-IOP
RMV-DUIC
RMV-IOP
RST-DUIC
RST-IOP

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ID RST:HSD
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Restores the specified high-speed synchronous data link (HSD) subdevice to service.

NOTE: The input/output processor (IOP) and the high-speed synchronous data link controller (HSDC) must be in service before the HSD subdevice can be restored.

2. FORMAT

RST:HSD *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

PF = Printout follows. Followed by an RST-HSD output message.

5. REFERENCES

Input Message(s)

DGN:HSDC
DGN:IOP
RMV:HSD
RMV:HSDC
RMV:IOP
RST:HSDC
RST:IOP

Output Message(s)

DGN-HSDC
DGN-IOP
RMV-HSD
RMV-HSDC
RMV-IOP
RST-HSD
RST-HSDC
RST-IOP

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ID RST:HSDC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Restores a high-speed synchronous data link controller (HSDC), conditionally or unconditionally, to service. If restored conditionally, an HSDC diagnostic will be run and must be all tests pass (ATP) before the unit will be restored to service. If restored unconditionally, no testing will be performed.

NOTE: The input/output processor (IOP) must be in service before the HSDC can be restored.

2. FORMAT

RST:HSDC *a*[[**;**UCL][**:**CONT]][**;**RAW][**:**[TLP][**,**CONT]]]!

3. EXPLANATION OF MESSAGE

- a* = Member number (0-255).
- UCL = Restore unconditionally. (The default is conditional restoration).
- CONT = Restore only the HSDC. (The default is to restore the HSDC and all associated HSD subdevices).
- RAW = Print the diagnostic results of every phase. (The default is to print the first five failures of each failing phase).
- TLP = Execute the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters should not be used together since no testing is performed on an unconditional restore.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by an RST-HSDC output message.
- RL = Retry later. The system is in overload condition.
- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons.
 - EXTRA KEYWORD
Duplicate or extraneous keywords were input.

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- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
 - EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)

DGN:HSDC
DGN:IOP
RMV:HSDC
RMV:IOP
RST:IOP

Output Message(s)

ANALY-TLPFILE
DGN-HSDC
DGN-IOP
RMV-HSDC
RMV-IOP
RST-HSDC
RST-IOP

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ID RST:IOP
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Restores an input/output processor (IOP), conditionally or unconditionally, to service. If restored conditionally, an IOP diagnostic will be run and must be all tests pass (ATP) before the unit will be restored to service. If restored unconditionally, no testing will be performed.

2. FORMAT

RST:IOP *a*[[;**UCL**][:**CONT**]]|[[;**RAW**][:**TLP**][,**CONT**][,**CU** *b*]]!

3. EXPLANATION OF MESSAGE

- a* = Member number (0-15).
- UCL** = Restore unconditionally. (Default is conditional restoration).
- CONT** = Restore only the IOP. (The default is to restore the IOP and all associated peripheral controllers; for example, the teletypewriter controller, magnetic tape controller, etc.)
- RAW** = Print the diagnostic results of every phase. (The default is to print the first five failures of each failing phase).
- TLP** = Execute the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters should not be used together since no testing is performed on an unconditional restore.

- b* = Specified helper unit, required for some diagnostic phases. An entry in the data field other than a keyword or keyword parameter is the specified helper unit. When a helper unit is not required, the specified helper unit is ignored. When a helper unit is required but the specified helper unit is inappropriate or unavailable, the helper unit dependent tests are skipped. The off-line CU is required as a helper unit when demand phase 15 is executed.

NOTE: The helper CU must be out-of-service (OOS) and must be diagnosed as ATP before it is used as a helper unit.

4. SYSTEM RESPONSE

- PF** = Printout follows. Followed by an RST-IOP output message.
- RL** = Retry later. The system is in overload condition.

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- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)

DGN: IOP

RMV: IOP

Output Message(s)

ANALY-TLPFILE

DGN- IOP

RMV- IOP

RST- IOP

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ID RST:MHD-A
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Conditionally or unconditionally restores a moving head disk (MHD) to service. If restored conditionally, an MHD diagnostic is run, and must be all tests pass (ATP) before the unit is restored to service. If restored unconditionally, no testing is performed.

NOTE: The disk file controller (DFC) must be in service before the MHD can be restored.

2. FORMAT

RST:MHD *a* [[**;****UCL**][**,****RAW**][:**[TLP]**][**,****CONT**]]!

3. EXPLANATION OF MESSAGE

a = Member number.

UCL = Unconditional restoral. The default is conditional restoral.

RAW = Prints the diagnostic results of every phase. The default is the first five failures of each failing phase.

TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters should not be used together since no testing is performed on an unconditional restore.

CONT = Includes only the specified unit (controller). Units attached to the specified unit will not be included. If the specified unit has no attached units, **CONT** is ignored.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by an RST-MHD output message.

RL = Retry later. The system is in overload condition.

?D = General syntax error in the data field, followed by the parameter position and one of the following reasons.

- **EXTRA KEYWORD**
Duplicate or extraneous keywords were input.
- **INVALID KEYWORD**
The keyword in the stated parameter position is not a valid keyword.

?E = Input error of undetermined type.

?I = General syntax error, followed by the parameter position and one of the following reasons.

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- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
- MISSING KEYWORD
A required keyword is missing from the input.
- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)

DGN:DFC
DGN:MHD
RMV:DFC
RMV:MHD
RST:DFC

Output Message(s)

ANALY-TLPFILE
DGN-DFC
DGN-MHD
RMV-DFC
RMV-MHD
RST-DFC
RST-MHD

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ID RST:MHD-B
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Conditionally or unconditionally restores a moving head disk (MHD) to service. If restored conditionally, an MHD diagnostic is run, and must be all tests pass (ATP) before the unit is restored to service. If restored unconditionally, no testing is performed.

NOTE: The disk file controller (DFC) and the small computer system interface (SCSI) bus (SBUS) must be in service before the MHD can be restored.

2. FORMAT

RST:MHD *a* [[;**UCL**][,**RAW**][:[**TLP**][,**CONT**]]!

3. EXPLANATION OF MESSAGE

a = Member number.
UCL = Unconditional restoral. The default is conditional restoral.
RAW = Prints the diagnostic results of every phase. The default is the first five failures of each failing phase.
TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters should not be used together since no testing is performed on an unconditional restore.

CONT = Includes only the specified unit (controller). Units attached to the specified unit will not be included. If the specified unit has no attached units, **CONT** is ignored.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by an RST-MHD output message.

5. REFERENCES

Input Message(s)
DGN:DFC
DGN:MHD
RMV:DFC
RMV:MHD
RMV:SBUS
RST:DFC
RST:SBUS

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Output Message(s)
ANALY-TLPFILE
DGN-DFC
DGN-MHD
RMV-DFC
RMV-MHD
RMV-SBUS
RST-DFC
RST-MHD
RST-SBUS

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ID RST:MT-A
GENERIC UNIX RTR R1.5 and R6.4
TYPE Input

1. PURPOSE

Restores the specified magnetic tape (MT) device to service.

NOTE: The input/output processor (IOP) and magnetic tape controller (MTC) must be in service before the MT can be restored.

2. FORMAT

RST:MT *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by an RST-MT output message.
- RL = Retry later. The system is in overload condition.
- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

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5. REFERENCES

Input Message(s)

DGN:IOP
DGN:MTC
RMV:IOP
RMV:MT
RMV:MTC
RST:IOP
RST:MTC

Output Message(s)

DGN-IOP
DGN-MTC
RMV-IOP
RMV-MT
RMV-MTC
RST-IOP
RST-MT
RST-MTC

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ID RST:MT-B
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Restores the specified magnetic tape (MT) device to service.

NOTE: For an MT residing under the disk file controller (DFC), the DFC and small computer system interface (SCSI) bus (SBUS) must be in service before the MT can be restored.

For an MT residing under the input/output processor (IOP), the IOP and magnetic tape controller (MTC) must be in service before the MT can be restored.

2. FORMAT

RST:MT *a*[[;**UCL**]|[[;**RAW**][:**TLP**]]!

NOTE: The RAW and TLP options are not available for IOP MT units.

3. EXPLANATION OF MESSAGE

- a* = Member number (0-255).
- UCL** = Unconditional restore. Default is conditional restore.
- RAW** = Prints the diagnostic results of every phase. Default is the first five failures of each failing phase.
- NOTE:** The RAW and UCL parameters cannot be used together, because no testing is performed on an unconditional restore.
- TLP** = Executes the trouble location procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

4. SYSTEM RESPONSE

- PF** = Printout follows. Followed by an RST-MT output message.
- RL** = Retry later. The system is in overload condition.
- ?D** = General syntax error in the data field, followed by the parameter position and one of the following reasons.
- **EXTRA KEYWORD**
Duplicate or extraneous keywords were input.
 - **INVALID KEYWORD**
The keyword in the stated parameter position is not a valid keyword.

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- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
 - MISSING KEYWORD
A required keyword is missing from the input.

5. REFERENCES

Input Message(s)

DGN:IOP
DGN:MTC
RMV:IOP
RMV:MT
RMV:MTC
RST:IOP
RST:MTC

Output Message(s)

DGN-IOP
DGN-MTC
RMV-IOP
RMV-MT
RMV-MTC
RST-IOP
RST-MT
RST-MTC

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ID RST:MTC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Conditionally or unconditionally restores a magnetic tape controller (MTC) to service. If restored conditionally, an MTC diagnostic is run and must be all tests pass (ATP) before the unit is restored to service. If restored unconditionally, no testing is performed.

NOTE: The input/output processor (IOP) must be in service before the MTC can be restored.

2. FORMAT

RST:MTC *a* [[**UCL**][:**CONT**] | [**RAW**][:**TLP**][:**CONT**][:**MT** *b*]]!

3. EXPLANATION OF MESSAGE

- a* = Member number (0-255).
- UCL** = Unconditional restoral. The default is conditional restoral.
- CONT** = Restores only the MTC. The default is to restore the MTC and all associated magnetic tape devices.
- RAW** = Prints the diagnostic results of every phase. The default is the first five failures of each failing phase.
- TLP** = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters should not be used together since no testing is performed on an unconditional restore.

- b* = Specified helper unit, required for some diagnostic phases. An entry in the data field other than a keyword or keyword parameter is the specified helper unit. When a helper unit is not required, the specified helper unit is ignored. When a helper unit is required but the specified helper unit is inappropriate or unavailable, the helper unit dependent tests are skipped.

4. SYSTEM RESPONSE

- PF** = Printout follows. Followed by an RST-MTC output message.
- RL** = Retry later. The system is in overload condition.

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- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)

DGN:IOP
DGN:MTC
RMV:IOP
RMV:MTC
RST:IOP

Output Message(s)

ANALY-TLPFILE
DGN-IOP
DGN-MTC
RMV-IOP
RMV-MTC
RST-IOP
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 Input

1. PURPOSE

Restores the specified maintenance teletypewriter (MTTY) to service.

NOTE: The input/output processor (IOP) and maintenance teletypewriter controller (MTTYC) must be in service before the MTTY can be restored.

2. FORMAT

RST:MTTY *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

PF = Printout follows. Followed by an RST-MTTY output message.

5. REFERENCES

Input Message(s)

DGN:IOP
DGN:MTTYC
RMV:IOP
RMV:MTTYC
RST:IOP
RST:MTTYC

Output Message(s)

DGN-IOP
DGN-MTTYC
RMV-IOP
RMV-MTTYC
RST-IOP
RST-MTTY
RST-MTTYC

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ID RST:MTTYC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Conditionally or unconditionally restores a maintenance teletypewriter controller (MTTYC) to service. If restored conditionally, an MTTYC diagnostic is run and must be all tests pass (ATP) before the unit is restored to service. If restored unconditionally, no testing is performed.

NOTE: The input/output processor (IOP) must be in service before the MTTYC can be restored.

2. FORMAT

RST:MTTYC *a* [[;**UCL**][:**CONT**]][;**RAW**][:**TLP**][:**CONT**]]!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).
UCL = Unconditional restoral. The default is conditional restoral.
CONT = Restores only the MTTYC. The default is to restore the MTTYC and all associated maintenance teletypewriters, receive-only printers (ROP), and Switching Control Center (SCC) data link subdevices.
RAW = Prints the diagnostic results of every phase. The default is the first five failures of each failing phase.
TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters should not be used together since no testing is performed on an unconditional restore.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by an RST-MTTYC output message.
RL = Retry later. The system is in overload condition.
?D = General syntax error in the data field, followed by the parameter position and one of the following reasons.

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- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)

DGN:IOP
DGN:MTTYC
RMV:IOP
RMV:MTTYC
RST:IOP

Output Message(s)

ANALY-TLPFILE
DGN-IOP
DGN-MTTYC
RMV-IOP
RMV-MTTYC
RST-IOP
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 Input

1. PURPOSE

Restores the specified receive-only printer (ROP) to service.

NOTE: The input/output processor (IOP) and maintenance teletypewriter controller (MTTYC) must be in service before the ROP can be restored.

2. FORMAT

RST:ROP *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

PF = Printout follows. Followed by an RST-ROP output message.

5. REFERENCES

Input Message(s)

DGN:IOP
DGN:MTTYC
RMV:IOP
RMV:MTTYC
RST:IOP
RST:MTTYC

Output Message(s)

DGN-IOP
DGN-MTTYC
RMV-IOP
RMV-MTTYC
RMV-ROP
RST-IOP
RST-MTTYC
RST-ROP

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ID RST:SBUS
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Restores a small computer system interface (SCSI) bus (SBUS) to service. There is no diagnostic to be run for SBUS since the SBUS is a pseudo device (no physical entity) only.

NOTE: The disk file controller (DFC) must be in service before the SBUS can be restored.

2. FORMAT

RST:SBUS *a* [:**UCL:CONT**]!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).
CONT = Restores only the SBUS. Default restores the SBUS and all associated moving head disks (MHDs).
UCL = Unconditional restore.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a RST-SBUS output message.

5. REFERENCES

Input Message(s)

RMV:DFC
RMV:MHD
RMV:SBUS
RST:DFC
RST:MHD

Output Message(s)

OP-MHD
RMV-DFC
RMV-MHD
RMV-SBUS
RST-DFC
RST-MHD
RST-SBUS

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ID RST:SCC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Restores the specified Switching Control Center (SCC) data link subdevice to service.

NOTE: The input/output processor (IOP) and the maintenance teletypewriter controller (MTTYC) must be in service before the SCC data link subdevice can be restored.

2. FORMAT

RST:SCC *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a RST-SCC output message.

5. REFERENCES

Input Message(s)

DGN:IOP
DGN:MTTYC
RMV:IOP
RMV:MTTYC
RMV:SCC
RST:IOP
RST:MTTYC

Output Message(s)

DGN-IOP
DGN-MTTYC
RMV-IOP
RMV-MTTYC
RMV-SCC
RST-IOP
RST-MTTYC
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 Input

1. PURPOSE

Conditionally or unconditionally restores a scanner and signal distributor controller (SCSDC) to service. If restored conditionally, an SCSDC diagnostic is run and must be all tests pass (ATP) before the unit is restored to service. If restored unconditionally, no testing is performed.

NOTE: The input/output processor (IOP) must be in service before the SCSDC can be restored.

2. FORMAT

RST:SCSDC *a* [[**;UCL**][:**CONT**]]|[:**RAW**][:**[TLP][,CONT]**]]!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).
UCL = Unconditional restoral. The default is conditional restoral.
CONT = Includes only the specified unit (controller). Units attached to the specified unit will not be included. If the specified unit has no attached units, **CONT** is ignored.
RAW = Prints the diagnostic results of every phase. The default is the first five failures of each failing phase.
TLP = Executes the trouble locating procedure (TLP) to generate a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters should not be used together since no testing is performed on an unconditional restore.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by an RST-SCSDC output message.

5. REFERENCES

Input Message(s)
DGN:IOP
DGN:SCSDC
RMV:IOP
RMV:SCSDC
RST:IOP

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Output Message(s)
ANALY-TLPFILE
DGN-IOP
DGN-SCSDC
RMV-IOP
RMV-SCSDC
RST-IOP
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 Input

1. PURPOSE

Restores the specified synchronous data link (SDL) subdevice to service.

NOTE: The input/output processor (IOP) and the synchronous data link controller (SDLC) must be in service before the SDL subdevice can be restored.

2. FORMAT

RST:SDL *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

PF = Printout follows. Followed by an RST-SDL output message.

5. REFERENCES

Input Message(s)

DGN:IOP
DGN:SDLC
RMV:IOP
RMV:SDL
RMV:SDLC
RST:IOP
RST:SDLC

Output Message(s)

DGN-IOP
DGN-SDLC
RMV-IOP
RMV-SDL
RMV-SDLC
RST-IOP
RST-SDL
RST-SDLC

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ID RST:SDLC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Conditionally or unconditionally restores a synchronous data link controller (SDLC) to service. If restored conditionally, an SDLC diagnostic is run, and must be all tests pass (ATP) before the unit is restored to service. If restored unconditionally, no testing is performed.

NOTE: The input/output processor (IOP) must be in service before the SDLC can be restored.

2. FORMAT

RST:SDLC *a* [[;**UCL**][:**CONT**]][;**RAW**][:[**TLP**][:**CONT**]]!

3. EXPLANATION OF MESSAGE

- a* = Member number (0-255).
- UCL** = Unconditional restoral. The default is conditional restoral.
- CONT** = Restores only the SDLC. The default is to restore the SDLC and all associated synchronous data link (SDL) subdevices.
- RAW** = Prints the diagnostic results of every phase. The default is the first five failures of each failing phase.
- TLP** = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters should not be used together since no testing is performed on an unconditional restore.

4. SYSTEM RESPONSE

- PF** = Printout follows. Followed by an RST-SDLC output message.
- RL** = Retry later. The system is in overload condition.
- ?D** = General syntax error in the data field, followed by the parameter position and one of the following reasons.
 - **EXTRA KEYWORD**
Duplicate or extraneous keywords were input.
 - **INVALID KEYWORD**
The keyword in the stated parameter position is not a valid keyword.

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- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)

DGN:IOP
DGN:SDLC
RMV:IOP
RMV:SDLC
RST:IOP

Output Message(s)

ANALY-TLPFILE
DGN-IOP
DGN-SDLC
RMV-IOP
RMV-SDLC
RST-IOP
RST-SDLC

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ID RST:TTY
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Unconditionally restores the specified teletypewriter (TTY) to service.

NOTE: The input/output processor (IOP) and the teletypewriter controller (TTYC) must be in service before the TTY can be restored.

TTY is a subdevice of TTYC. Restoring a TTY by using RST:TTY *a*! has the same effect as using RST:TTY *a*;UCL!

2. FORMAT

RST:TTY *a*!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by an RST-TTY output message.
- RL = Retry later. The system is in overload condition.
- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

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5. REFERENCES

Input Message(s)

DGN:IOP
DGN:TTYC
RMV:IOP
RMV:TTY
RMV:TTYC
RST:IOP
RST:TTYC

Output Message(s)

DGN-IOP
DGN-TTYC
RMV-IOP
RMV-TTY
RMV-TTYC
RST-IOP
RST-TTY
RST-TTYC

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ID RST:TTYC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Restores a teletypewriter controller (TTYC), conditionally or unconditionally, to service. If restored conditionally, a TTYC diagnostic is run and must be all tests pass (ATP) before the unit is restored to service. If restored unconditionally, no testing is done on the unit to be restored.

NOTE: The input output processor (IOP) must be in service before the TTYC can be restored.

2. FORMAT

RST:TTYC *a* [[;**UCL**][:**CONT**]]|[:**RAW**][:**TLP**][:**CONT**]]!

3. EXPLANATION OF MESSAGE

a = Member number (0-255).
UCL = Unconditional restoral. The default is conditional restoral.
CONT = Restores only the TTYC. The default is to restore the TTYC and all associated teletypewriters.
RAW = Prints the diagnostic results of every phase. The default is the first five failures of each failing phase.
TLP = Executes the trouble locating procedure (TLP) at the conclusion of the diagnostic. This process generates a list of suspected faulty equipment.

NOTE: The TLP and UCL parameters should not be used together since no testing is performed on an unconditional restore.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by an RST - TTYC output message.
RL = Retry later. The system is in overload condition.
?D = General syntax error in the data field, followed by the parameter position and one of the following reasons.
— **EXTRA KEYWORD**
Duplicate or extraneous keywords were input.
— **INVALID KEYWORD**
The keyword in the stated parameter position is not a valid keyword.

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- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
- EXTRA KEYWORD
Duplicate or extraneous keywords were input.
 - MISSING KEYWORD
A required keyword is missing from the input.
 - INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.

5. REFERENCES

Input Message(s)

DGN:IOP
DGN:TTYC
RMV:IOP
RMV:TTYC
RST:IOP

Output Message(s)

ANALY-TLPFILE
DGN-IOP
DGN-TTYC
RMV-IOP
RMV-TTYC
RST-IOP
RST-TTYC

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ID SET:CLK-A
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 thru
R21.27
TYPE Input

1. PURPOSE

Sets the system clock to the specified date and time. It can also adjust the system clock by plus or minus the seconds specified.

2. FORMAT

[1] **SET:CLK** *abcde*!

[2] **SET:CLK:**{**FWD** *f*|**BWD** *f*}!

NOTE: No spaces are permitted within the argument string.

3. EXPLANATION OF MESSAGE

a = Month of year: 01-12.
b = Day of month: 01-31.
c = Last two digits of year: 00-99. Numbers less than 70 refer to years in the 21st century.
d = Hour: 00-23.
e = Minute: 00-59.
f = Second: 00-59. Set the system clock forward (+) or backward (-) by *f* seconds.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a SET-CLK output message.

5. REFERENCES

Input Message
OP:CLK

Output Messages
OP-CLK
SET-CLK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID SET:CLK-B
GENERIC UNIX RTR R21.29 and
later
TYPE Input

1. PURPOSE

Sets the system clock to the specified date and time. It can also adjust the system clock by plus or minus the seconds specified.

2. FORMAT

[1] **SET:CLK** *abcde*!

[2] **SET:CLK:**{**FWD** *f*|**BWD** *f*}!

NOTE: No spaces are permitted within the argument string.

3. EXPLANATION OF MESSAGE

- a* = Month of year: 01-12.
- b* = Day of month: 01-31.
- c* = Last two digits of year: 00-99. Numbers less than 70 refer to years in the 21st century. Due to limitations of the 3B20/21D, years 2038 and later are not supported.
- d* = Hour: 00-23.
- e* = Minute: 00-59.
- f* = Second: 00-59. Set the system clock forward (+) or backward (-) by *f* seconds.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a SET-CLK output message.

5. REFERENCES

Input Message
OP:CLK

Output Messages
OP-CLK
SET-CLK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID SET:IODRV-A
GENERIC UNIX RTR R1.5 and R6.4
TYPE Input

1. PURPOSE

Allows option setting in the input/output processor (IOP) driver (IODRV) to print messages.

NOTE: Using the SET:IODRV input message without the options turns on all severity levels, handler identifiers, and classes, but does not change the setting for saving IOP error messages.

2. FORMAT

SET:IODRV[(**LVL** *a*|(*a*,*a*[,*a*])[(**ID** *b*|(*b*,*b*[,*b*...])[(**CLASS** *c*|(*c*,*c*[,*c*...])
[,**MSGSAVE**]]!

3. EXPLANATION OF MESSAGE

a = Severity level: 1-3, where one is the most severe setting and three is the least severe.

b = Handler identifications are:

ALL — All IDs.
APH — Application protocol handler.
APPL1 — APPL5 - Reserved for application handlers.
CIH — Craft interface handler.
DUIH — Direct user interface handler.
IOP — Input/output processor driver.
MAINT — Maintenance handler.
MTH — Magnetic tape handler.
NPH — Network protocol handler.
SCSDH — Scanner and signal distributor handler.
SDLH — Synchronous data link handler.
SPH — Session protocol handler.
TPH — Transport protocol handler.

c = Thirty-two classes available.

MSGSAVE = All IOP error messages will be saved in the logfile IODRVLOG.

4. SYSTEM RESPONSE

NG = No good. Conflict with system status.

PF = Printout follows. Followed by a SET-IODRV output message.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

Input Messages

CLR: IODRV

OP: IODRV

Output Messages

OP- IODRV

SET- IODRV

SEE PROPRIETARY NOTICE ON COVER PAGE

ID SET:IODRV-B
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Allows option setting in the input/output processor (IOP) driver (IODRV) to print messages.

NOTE: Using the SET:IODRV input message without the options turns on all severity levels, handler identifiers, and classes, but does not change the setting for saving IOP error messages.

2. FORMAT

SET:IODRV[(**LVL** *a*|(a,a[,a]))[(**ID** *b*|(b,b[,b...]))[(**CLASS** *c*|(c,c[,c...]))
[,**MSGSAVE**]]!

3. EXPLANATION OF MESSAGE

a = Severity level: 1-3, where one is the most severe setting and three is the least severe.

b = Handler identifications are:

ALL — All IDs.
APH — Application protocol handler.
APPL1 — APPL5 - Reserved for application handlers.
CIH — Craft interface handler.
DUIH — Direct user interface handler.
IOP — Input/output processor driver.
MAINT — Maintenance handler.
MTH — Magnetic tape handler.
NPH — Network protocol handler.
SCSDH — Scanner and signal distributor handler.
SDLH — Synchronous data link handler.
SPH — Session protocol handler.
TPH — Transport protocol handler.
PPH — Presentation protocol handler.

c = Thirty-two classes available.

MSGSAVE = All IOP error messages will be saved in the logfile IODRVLOG.

4. SYSTEM RESPONSE

NG = No good. Conflict with system status.

PF = Printout follows. Followed by a SET-IODRV output message.

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5. REFERENCES

Input Messages

CLR: IODRV

OP: IODRV

Output Messages

OP- IODRV

SET- IODRV

SEE PROPRIETARY NOTICE ON COVER PAGE

ID STOP:AUD
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Stops a currently active audit that is controlled by the computer system integrity monitor (SIM).

2. FORMAT

STOP:AUD:*a b*!

3. EXPLANATION OF MESSAGE

a = Audit name. See input Member Numbers Appendix,
MEM-NUM-APPB.
b = Member number. See input Member Numbers Appendix,
MEM-NUM-APPB.

4. SYSTEM RESPONSE

See the appendix, System Responses for Audit System Input Messages, AUD.

5. REFERENCES

Input Appendixes
AUD
MEM-NUM-APPB

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

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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
STOP-AUD

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ID STOP:BKDISK
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Stops the copying of the boot disk to tape.

2. FORMAT

STOP:BKDISK!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

NG = No good. A fatal error was encountered because the system was
unable to initiate the stop program. Try to initiate the message
again. If the process still fails, seek technical assistance.

PF = Printout follows. Followed by a COPY-BKDISK output message.

5. REFERENCES

Input Message
COPY:BKDISK

Output Message
COPY-BKDISK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID STOP:CMPR;MHD
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Stops any CMPR:MHD commands that are currently executing.

2. FORMAT

STOP:CMPR;MHD!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

NG = No good. No CMPR:MHD input message currently executing.
OK = Good. Request accepted.

5. REFERENCES

Input Message
CMPR:MHD

Output Message
CMPR-MHD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID STOP: COPY; DIFF
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Stops any COPY: DIFF; SRC commands that are currently executing.

2. FORMAT

STOP: COPY; DIFF!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

NG = No good. No COPY: DIFF; SRC input message currently executing.

OK = Good. Request accepted.

5. REFERENCES

Input Message
COPY: DIFF; SRC

Output Message
COPY- DIFF, SRC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID STOP:DCI
GENERIC UNIX RTR R21.3, R21.15
and later
TYPE Input

1. PURPOSE

Sends an E_USR9 event to the dual serial channel interface (DCI) process, /prc/bdj. Upon receiving this event, this process terminates.

When /prc/bdj terminates itself, all DCI devices will be taken out of service after failing all jobs. Use RST:DCI to restart the process and return the devices to the active state.

2. FORMAT

STOP:DCI!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

OK = Good. Event sent to the DCI process port. The DCI process is terminated.

RL = Retry later. Either STOP:DCI could not get the PID of the DCI process or it could not send an event to it.

5. REFERENCES

Input Message(s)
RST:DCI
RMV:DCI

Output Message(s)
RST-DCI
RMV-DCI

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ID STOP:DMQ
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Stops the specified computer maintenance request. The request is identified by the unit name and number and optionally the subunit name and number. Any request handled by the maintenance input request administrator (MIRA) (restore, remove, diagnose) can be stopped by using this message.

2. FORMAT

STOP:DMQ[;[*a b*[, *c d*]][, **ACTIVE**|, **WAITING**]]!

3. EXPLANATION OF MESSAGE

- a* = Unit name. See Input Member Numbers Appendix, Table C, MEM-NUM-APPC.
- b* = Unit number. See Input Member Numbers Appendix, Table C, MEM-NUM-APPC.
- c* = Subunit name, if *a*=**CU**. See Input Member Numbers Appendix, Table D, MEM-NUM-APPD.
- d* = Subunit number. See Input Member Numbers Appendix, Table D, MEM-NUM-APPD.

ACTIVE = Stop only active maintenance requests.

WAITING = Stop only waiting maintenance requests.

NOTE: If neither **ACTIVE** nor **WAITING** is specified, then both requests will be stopped.

4. SYSTEM RESPONSE

- ?D = General syntax error in the data field, followed by the parameter position and one of the following reasons.
 - **INVALID KEYWORD**
The keyword in the stated parameter position is not a valid keyword.
- ?E = Input error of undetermined type.
- ?I = General syntax error, followed by the parameter position and one of the following reasons.
 - **EXTRA KEYWORD**
Duplicate or extraneous keywords were input.

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- INVALID KEYWORD
The keyword in the stated parameter position is not a valid keyword.
- INCONSISTENT KEYWORD
The combination of keywords is not a valid combination.

PF = Printout follows. Followed by a STOP-DMQ output message.
RL = Retry later. The system is in an overload condition.

5. REFERENCES

Input Appendixes
MEM-NUM-APPC
MEM-NUM-APPD

Input Message
OP:DMQ

Output Messages
OP-DMQ
STOP-DMQ

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID STOP:E;ANY
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Stops any process. The process can be killed either by specifying the process ID (PID) number or the pathname.

****CAUTION****

Improper use of this command may cause unpredictable system failures.

2. FORMAT

STOP:EXC:ANY,{PID *a*|FN "*b*"},UCL!

3. EXPLANATION OF MESSAGE

a = ID number of the process to be terminated.

NOTE: If a nonexistent process ID is used, the system prints a STOPPED message followed by the UNIX® RTR command pkill message.

b = Pathname of the file. See the User Guidelines in this manual for definitions of pathname and file.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a STOP-EXC, ANY output message.

5. REFERENCES

Input Messages
OP:ST;PROC
STOP:E;USER

Output Messages
OP-ST, PROC
STOP-E, ANY

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID STOP:E;USER
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Stops a user process specified either by ID number or by pathname.

****CAUTION****

Use of this command to stop a monitored process will prevent it from being restarted automatically. The `INIT:ULARP` command can be used to restart ULARP and processes monitored by ULARP.

2. FORMAT

`STOP:EXC:USER,(PID a|FN "b")[,SIG c]!`

3. EXPLANATION OF MESSAGE

PID = Process ID.

a = ID number of the process to be terminated.

FN = File name.

b = Pathname of the process to be terminated.

Pathname of the file. See the User Guidelines in this manual for a definition of pathname.

c = One of the following signals (default = 15 if **PID** is used and 9 if **FN** is used):

- 1 — Hang up.
- 2 — Interrupt.
- 3 — Quit.
- 4 — Illegal instruction not reset when caught.
- 5 — Trace trap not reset when caught.
- 6 — IOT instruction.
- 7 — EMT instruction.
- 8 — Floating point exception.
- 9 — Kill cannot be caught or ignored.
- 10 — Bus error.
- 11 — Segmentation violation.
- 12 — Bad argument to system call.
- 13 — Write on a pipe with no one to read it.
- 14 — Alarm clock.
- 15 — Software termination signal.

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4. SYSTEM RESPONSE

PF = Printout follows. Followed by a STOP-EXC, USER output message.

5. REFERENCES

Input Messages

INIT:ULARP

OP:ST;PROC

STOP:E;ANY

Output Messages

OP-ST, PROCESS

STOP-E, USER

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 Input

1. PURPOSE

Stops the computer system-update command in progress. Terminates the process associated with a previous UPD:GEN input message.

2. FORMAT

STOP:GEN[;UCL]!

3. EXPLANATION OF MESSAGE

UCL = Unconditional execution. If the process cannot be terminated using termination or kill signals, it will be terminated by a more extreme method. In this case, some system resources in use by the process may not be released automatically.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.

PF = Printout follows. Followed by a STOP-GEN output message.

5. REFERENCES

Input Messages

UPD:G;BKOUT
UPD:G;COMMIT
UPD:G;ENTER
UPD:G;PROCD
UPD:G;RESTR

Output Messages

STOP-GEN
UPD-G, BACKOUT
UPD-G, COMMIT
UPD-G, ENTER
UPD-G, PROCEED
UPD-G, RESTORE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID STOP:OFLBOOT
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

To stop the OFLBOOT procedure. This input message can be used any time that the OFLBOOT procedure is in progress. It will stop the OFLBOOT procedure, and re-establish a duplex configuration. Optionally, it will submit requests to restore to service those units that were part of the off-line side.

2. FORMAT

STOP:OFLBOOT:[RST][, TRACE]!

3. EXPLANATION OF MESSAGE

RST = If specified, requests will be submitted to restore units that were part of the off-line side.

TRACE = This option should be used by authorized technical personnel only. It is for trouble shooting purposes, and will generate a significant amount of undocumented trace messages. The default is no trace message generated.

4. SYSTEM RESPONSE

?A = Action field contains an error.

?E = Error exists in the message.

?I = Identification field contains an error.

IP = In progress.

5. REFERENCES

Input Messages
EXC:OFLBOOT
SW:OFLBOOT

Output Messages
EXC-OFLBOOT
REPT-OFLBOOT
STOP-OFLBOOT
SW-OFLBOOT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID SW:CU
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Causes a graceful switch of the active/standby status of the computer control units (CUs).
The CU switch is attempted only if the non-active CU major status is standby.

2. FORMAT

SW:CU!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

NG = No good. The CUs were not switched because the non-active CU is
not in an acceptable state.
PF = Printout follows. Followed by an SW-CU output message.

5. REFERENCES

Input Message
OP:00S

Output Messages
OP-00S
SW-CU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID SW:OFLBOOT
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

To perform a call processing side switch. This input message may be used only after an REPT OFLBOOT BOOT COMPLETED message has been received.

This command may be used to switch call processing to the other side. After the switch, call processing is handled by the new on-line side, and the previous on-line side becomes the off-line side. The system remains split.

The input message STOP:OFLBOOT must be used to return to duplex configuration.

There are some restrictions the user must follow for this input message to execute successfully:

- There should be no diagnostic activities running.
- The MTTY and ROP port selector switches must be in the AUTO position and the portswitch controller must be powered on.

2. FORMAT

SW:OFLBOOT:[, UCL][, TRACE]!

3. EXPLANATION OF MESSAGE

UCL = If specified, some application precheck results will be overridden. The RTR precheck results will not be overridden. The default is enforce all precheck results.

TRACE = This option should be used by authorized technical personnel only. It is for trouble shooting purposes, and will generate a significant amount of undocumented trace messages. The default is no trace message generated.

4. SYSTEM RESPONSE

?A = Action field error.
?E = Error exists in the message.
?I = Identification field error.
IP = In progress.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

Input Messages

EXC:OFLB00T

STOP:OFLB00T

Output Messages

EXC-OFLB00T

REPT-OFLB00T

STOP-OFLB00T

SW-OFLB00T

SEE PROPRIETARY NOTICE ON COVER PAGE

ID SW:PORTSW
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Requests a switch of the maintenance teletypewriter controller's (MTTYC's) receive-only printer (ROP) and/or maintenance teletypewriter (MTTY) to the alternate MTTYC and a switch of the active/standby status of the MTTY and/or ROP. The switch can succeed only if the alternate MTTYC and its MTTY and/or ROP are in an acceptable state. If no switchable device is specified, both the MTTY and ROP are switched to the alternate MTTYC.

2. FORMAT

SW:PORTSW[:a]!

3. EXPLANATION OF MESSAGE

a = Port switchable subdevice name (MTTY or ROP).

4. SYSTEM RESPONSE

?I = Extra keywords.

NG = No good. Bad open on equipment configuration database (ECD) or the subdevice must be MTTY or ROP.

PF = Printout follows. Followed by an SW-PORTSW output message.

5. REFERENCES

Output Message
SW-PORTSW

SEE PROPRIETARY NOTICE ON COVER PAGE

WARNING
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID TST:ACKU
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Checks the acknowledgment time-out mechanism via the user shell testing function.

****WARNING****

Incorrect use of variable *a* and *b* can cause depletion of critical system resources. This message is intended for broadcast warning message (BWM) testing purposes, and not general field use.

2. FORMAT

TST:ACKU[(*a*[, *b*[, *c*]])]!

3. EXPLANATION OF MESSAGE

a = Number of lines in the message (1-1000). Default = 1.
b = Number of messages to be output (1-1000). Default = 1.
c = Spooler output class (0-255). Default = 2.

4. SYSTEM RESPONSE

Terminal should lock to further input. Variable *a* multiplied by variable *b* TST-SPL output messages are printed after 30 seconds to each of the devices in spooler output classes *c*. Terminal may be unlocked for further input by using the BREAK key.

5. REFERENCES

Output Message
TST-SPL

SEE PROPRIETARY NOTICE ON COVER PAGE

WARNING
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID TST:ALT
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Verifies that an alternate shell can be invoked. The .pname file must have an entry with a label of seven. TST:ALT will exit with a value of seven which will cause the existing cftshl to execute an alternate cftshl.

****WARNING****

Incorrect use of parameters *a* and *b* can cause the depletion of critical system resources. This message is intended for broadcast warning message (BWM) testing, and not for general field use.

2. FORMAT

TST:ALT[(*a*[, *b*[, *c*]])]!

3. EXPLANATION OF MESSAGE

- a* = Number of lines in the message (1-1000). Default = 1.
- b* = Number of messages to be output (1-1000). Default = 1.
- c* = Spooler output class (0-255). Default = 2.

4. SYSTEM RESPONSE

- IP = In Progress. Each invocation of TST:ALT will cause one additional craft shell to be executing.
- PF = Printout Follows. Followed by variable *a* multiplied by variable *b* TST-SPL output messages to each of the devices in the spooler output class *c*.

5. REFERENCES

Output Message
TST-SPL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID TST:SHL
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Generates an 'echoed' parsed copy of the input message on the originating device and the receive-only printer (ROP). This message is a craft shell testing function, and is intended for broadcast warning message (BWM) testing purposes, not general field use.

2. FORMAT

TST:SHL*[a]*!

3. EXPLANATION OF MESSAGE

a = Any format message string.

4. SYSTEM RESPONSE

PF = Printout Follows. Followed by the echoed parsed input command on the originating device.

5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

WARNING
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID TST:SPL
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Requests one or more spooler output messages via the user shell testing function.

****WARNING****

Incorrect use of parameters *a* and *b* can cause the depletion of critical system resources. This message is intended for broadcast warning message (BWM) testing purposes, and not for general field use.

2. FORMAT

TST:SPL[(*a*[, *b*[, *c*[, *d*]])]!
TST:SPL[(*a*[, *b*[, *c*]])]:**RLS**!

3. EXPLANATION OF MESSAGE

- a* = Number of lines in the message (1-1000). Default = 1.
- b* = Number of messages to be output (1-1000). Default = 1.
- c* = Spooler output class (0-255). Default = 2.
- d* = Optional number of output messages to be distributed throughout one minute (1-430).
- RLS** = Execute the RELEASE option.

4. SYSTEM RESPONSE

- PF = Printout Follows. Followed by variable *a* multiplied by variable *b* TST-SPL output messages to each of the devices in spooler output class *c*.

5. REFERENCES

Output Message
TST-SPL

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID UPD:APPLY;BYTER-A
GENERIC UNIX RTR R1.5, R6.4 and
R21.3
TYPE Input

1. PURPOSE

Applies a byte replacement update associated with a broadcast warning message (BWM).
BYTER writes into sequential memory locations in processes.

****CAUTION****

This message requests overwrites of data in the memory of the computer. It should not be used without expert technical assistance unless it is part of a prescribed field update procedure.

2. FORMAT

UPD:APPLY:BYTER,UPNM "a",FN "b", ADDR c, DATA d,
OLDDATA e, [,UCL][,WTIME f][,VLEV g]!
UPD:APPLY:BYTER,CONT [,WTIME f][,VLEV g]!

3. EXPLANATION OF MESSAGE

- a* = BWM number specified as BWMyy-*nnnn*, DMTyy-*nnnn*, or CFTyy-*nnnn* (craft) where BWM, TMP, and CFT identify the category of BWM, yy is the last two digits of the year issued, and *nnnn* is the sequence number identifying the BWM.
- b* = The file to be changed, named by the pathname *b*. See the User Guidelines in this manual for definitions of file and pathname.
- c* = The starting address of the overwrite which must be on a word boundary.
- d* = Overwrite which will be placed at starting address *c*. Each overwrite must be four bytes long. A list of up to three overwrites may be entered. The order in which they are entered is the order in which they will be written into the file *b*.
- e* = Expected contents of the locations to be overwritten. Old contents must be given for every overwrite entered. The order in which they are entered will be the order in which they are compared to the contents in the file *b*, starting at address *c*.
- UCL** = Order is not enforced on the BWM name *a*.
- f* = The number of seconds for the automatic backout wait; the default is 300 seconds. This keyword is only applicable when *b* is non-killable.
- CONT** = Continue applying the byte replacement command that failed during its application.

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g = Requests additional output from a field update process. Verbose flags may be set for UPD, ucm, ogen, oild, and dufr. The flags must be entered in the order in which the processes are listed. To turn on the verbose output for a process, all process flags before that one must be used or set to zero.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a UPD-APPLY output message.

5. REFERENCES

Input Messages

UPD:BKOUT
UPD:DISPLAY
UPD:OMIT
UPD:PERM
UPD:RESET

Output Messages

UPD-APPLY
UPD-BKOUT
UPD-BLDBOOT
UPD-CLR
UPD-DISPLAY
UPD-FTRC
UPD-OMIT
UPD-PERM
UPD-PURGE
UPD-RECLAIM
UPD-REPT
UPD-RESET
UPD-UPNM
UPD-VFY

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WARNING
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID UPD:APPLY;BYTER-B
GENERIC UNIX RTR R21.11, R21,15
and later
TYPE Input

1. PURPOSE

Requests application of a byte replacement update associated with a software update.
BYTER writes into sequential memory locations in processes.

Format 1 is used for 3B20D/3B21D (3B) updates only.

****WARNING****

This message overwrites data in core memory. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.

2. FORMAT

[1] **UPD:APPLY:BYTER,UPNM "a",FN "b",ADDR d,DATA e,
OLDDATA f[,UCL][,WTIME "h"]!**

3. EXPLANATION OF MESSAGE

- a* = Software update: specified as BWMyy-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn (craft) where BWM, TMP, and CFT identify the category of software update, yy is the last two digits of the year issued, and nnnn is the sequence number identifying the software update ("" is required).
- b* = The name of the file to be changed, specified by the pathname *b*. Refer to the System Maintenance manual for definitions of file and pathname.
- d* = The starting address (in decimal) of the overwrite, which must be on a word boundary.
- e* = The overwrite that will be placed at starting address *d*. Each overwrite must be four bytes long. A list of up to 32 overwrites may be entered. The order they are entered is the order in which they will be written into the file, *b*.
- f* = Expected contents of the locations to be overwritten. Old contents must be given for every overwrite entered. The order they are entered will be the order they are compared to the contents in the file *b*, starting at address *d*.
- UCL** = Do not enforce order on the software update name *a*.
- h* = The number of seconds ("wait time", WTIME), for the automatic backout wait (0-3600 seconds, default: 300). This parameter is only applicable when *b* is non-killable.

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4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by a
UPD:COMMAND output message.

5. REFERENCES

Input Message(s):

UPD:BKOUT

UPD:DISPLAY

UPD:OFC

Output Message(s):

UPD:COMMAND

UPD:REPT

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID UPD:APPLY;FILER-A
GENERIC UNIX RTR R1.5, R6.4 and
R21.3
TYPE Input

1. PURPOSE

Applies a file replacement update associated with a broadcast warning message (BWM). **FILER** replaces an old file with a new one. The new file retains the old file's characteristics (mode, owner, etc.).

****CAUTION****

This message requests overwrites of data in system files. It should not be used without expert technical assistance unless it is part of a prescribed field update procedure.

2. FORMAT

UPD:APPLY:FILER, UPNM "a", FN "b", UF "c"[,UCL][,VLEV d]!
UPD:APPLY:FILER, CONT [,VLEV d]!

3. EXPLANATION OF MESSAGE

- a* = BWM specified as BWMyy-*nnnn*, DMTyy-*nnnn*, or CFTyy-*nnnn* where BWM, DMT, and CFT identify the category of BWM, yy is the last two digits of the year issued, and *nnnn* is the sequence number identifying the BWM.
- b* = Pathname of the file to be replaced. If the file does not exist, it will be created. See the User Guidelines in this manual for definitions of pathname and file.
- c* = Pathname of the new file.
- UCL** = Order is not enforced on the BWM name *a*.
- CONT** = Continue applying the file replacement update that failed during its application.
- d* = Requests additional output from a field update process. Verbose flags may be set for UPD and ucm. The flags must be entered in the order the processes are listed. To turn on the verbose output for ucm, UPD's flag must be used or set to zero.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a UPD-APPLY output message.

5. REFERENCES

Input Messages
UPD:BKOUT

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UPD:DISPLAY
UPD:OMIT
UPD:PERM
UPD:RESET

Output Messages

UPD-APPLY
UPD-BKOUT
UPD-BLDBOOT
UPD-CLR
UPD-DISPLAY
UPD-FTRC
UPD-OMIT
UPD-PERM
UPD-PURGE
UPD-RECLAIM
UPD-REPT
UPD-RESET
UPD-UPNM
UPD-VFY

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WARNING
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID UPD:APPLY;FILER-B
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests application of a file replacement update associated with a software update. **FILER** replaces an old file with a new one. The new file retains the old file's characteristics (mode, owner, etc.).

Format 1 is to be used for 3B20D/3B21D (3B) updates only.

****WARNING****

This message overwrites data in system files. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.

2. FORMAT

[1] **UPD:APPLY:FILER,UPNM "a",FN "b",UF "e"[,NREL][,UCL]!**

3. EXPLANATION OF MESSAGE

NREL = Forces a file replacement of *b* by *e* when the file types are different in their magic numbers or when one is in common object file format and the other is not.

UCL = Do not enforce order on the software update name *a*.

a = Software update: specified as *BWMyy-nnnn*, *TMPy-y-nnnn* (temporary), or *CFTyy-nnnn* (craft) where *BW*, *TM*, and *CFT* identify the category of software update, *yy* is the last two digits of the year issued, and *nnnn* is the sequence number identifying the software update ("" is required).

b = Pathname of the file to be replaced. Refer to the System Maintenance manual for definitions of pathname and file. If the file does not exist it will be created.

e = Name of the source file in the software update package.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a UPD:COMMAND output message.

5. REFERENCES

Input Message(s):
UPD:BKOUT
UPD:DISPLAY
UPD:OFC

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Output Message(s):

UPD:COMMAND

UPD:REPT

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID UPD:APPLY;FUNCRC-A
GENERIC UNIX RTR R1.5, R6.4 and
R21.3
TYPE Input

1. PURPOSE

Applies a function replacement update associated with a broadcast warning message (BWM).

****CAUTION****

This message may request overwrites of data in system files. It should not be used without expert technical assistance unless it is part of a prescribed field update procedure.

2. FORMAT

This message has two formats.

- [1] **UPD:APPLY:FUNCRC,UPNM "a",FN "b",UF "c",[,UCL][,WTIME d**
[,VLEV e]!
- [2] **UPD:APPLY:FUNCRC,CONT[,WTIME d][,VLEV e]!**

3. EXPLANATION OF MESSAGE

- a* = BWM specified as BWMyy-nnnn, DMTyy-nnnn, or CFTyy-nnnn where BWM, DMT, and CFT identify the category of BWM, yy are the last two digits of the year issued, and nnnn is the sequence number identifying the BWM.
- b* = Pathname of the file to be modified. See the User Guidelines in this manual for definitions of pathname, directory, and files.
- c* = Name (for example, uf filename.m) or pathname (for example, uf etc/bwm/CFT*-0001/filename.m) of one or more update files. May be the name of a single .m file, a list of .m files, a directory of .m files, or an archive of .m files. See the User Guidelines in this manual for instructions on entering a list of filenames.
- UCL** = Order is not enforced on the BWM name *a*.
- CONT** = Continue applying the function replacement update that failed during its application.
- d* = The number of seconds for the automatic backout wait (default is 300 seconds). This keyword is only applicable when *b* is non-killable.
- e* = Requests additional output from a field update process. Verbose flags may be set for UPD, ucm, ogen, oild, and dufr. The flags must be entered in the order in which the processes are listed. To

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turn on the verbose output for a process, all process flags before that one must be used or set to zero.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a UPD-RCVRY output message.

5. REFERENCES

Input Messages

UPD:BKOUT
UPD:DISPLAY
UPD:OMIT
UPD:PERM
UPD:RESET

Output Messages

UPD-APPLY
UPD-BKOUT
UPD-BLDBOOT
UPD-CLR
UPD-DISPLAY
UPD-FTRC
UPD-OMDB
UPD-OMIT
UPD-PERM
UPD-PURGE
UPD-RCVRY
UPD-RECLAIM
UPD-REPT
UPD-RESET
UPD-UPNM
UPD-VFY

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WARNING
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID UPD:APPLY;FUNCRC-B
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests application of a function replacement update associated with a software update.

Format [1] is to be used for 3B20D/3B21D (3B) updates only.

****WARNING****

This message overwrites data in system files and in core memory. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.

2. FORMAT

[1] **UPD:APPLY:FUNCRC,UPNM "a",FN "b",{UF "e"|UFFN "f"}
[,UCL][,WTIME "h"]!**

3. EXPLANATION OF MESSAGE

- a* = Software update: specified as BWMyy-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn (craft) where BWM, TMP, and CFT identify the category of software update, yy are the last two digits of the year, and nnnn is the sequence number identifying the software update ("" is required).
- b* = Pathname of the file to be modified. Refer to the System Maintenance manual for definitions of pathname, directory and files.
- e* = Pathname of update file. May be the name of a single .m file.
- f* = Name of the file containing list of .m files for this update.
- UCL** = Do not enforce order on the BWM name *a*.
- h* = The number of seconds ("wait time", WTIME), for the automatic backout wait (0-3600 seconds, default: 300). This parameter is only applicable when *b* is non-killable.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by a UPD:COMMAND output message.

5. REFERENCES

Input Message(s):
UPD:BKOUT
UPD:DISPLAY

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UPD:OFC

Output Message(s):

UPD:COMMAND

UPD:REPT

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WARNING
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID UPD:APPLY;UNIX
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests update to the software update database (Cud) after the successful execution of the first command preceding the first UPD:APPLY message in the APPLY section of the MSGS file in a software update (SU).

This command is not part of the MSGS file and is automatically executed during the Software Update process. If there is no command preceding the first UPD:APPLY line in the MSGS file, this command will not be executed.

****WARNING****

This message overwrites data in system files and is automatically executed, if needed, when 9310 or 9410 is poked from 1960 page or 9800 is poked from 1940 page. It should not be used without expert technical assistance unless it is part of a prescribed software update procedure.

2. FORMAT

UPD:APPLY:UNIXCMD,UPNM "a"!

3. EXPLANATION OF MESSAGE

a = Software update: specified as BWMyy-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn (craft) where BWM, TMP, and CFT identify the category of software update, yy is the last two digits of the year issued, and nnnn is the sequence number identifying the software update ("" is required).

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a UPD:COMMAND output message.

5. REFERENCES

Input Message(s):
UPD:APPLY-UNIX
UPD:BKOUT
UPD:DISPLAY
UPD:OFC

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:AUTO
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests that the status of software update (SU) process automation be determined and/or changed. This input message may be used to allow, CANCEL, inhibit, RESUME, STOP, or request the current STATUS of SU process automation.

2. FORMAT

UPD:AUTO:{INH,[REASON *a*]|ALW|STATUS|STOP|RESUME|CANCEL}!

3. EXPLANATION OF MESSAGE

ALW = Allow SU process automation. This allows an SU to be scheduled for automatic installation.

CANCEL = Cancel the automatic SU installation that is currently scheduled, as seen on the 1941 display page. May also be used to cancel an SU that has stopped.

INH = Inhibit SU process automation. This prevents an SU from being scheduled for automatic installation.

RESUME = Resume a previously stopped or aborted automated SU installation.

NOTE: This should NEVER appear in an SU MSGS file, and it should only be used to resume an automated SU installation that was previously stopped or aborted.

STATUS = Show the current status of SU process automation. If the process is inhibited, this option shows the reason it is inhibited by displaying the contents of the reason field.

STOP = Stop the automated SU installation that is currently in progress.

NOTE: This causes an office alarm (MAJOR or MINOR alarm, as set in the SU automation office profile).

a = Reason that the office is inhibiting SU process automation (maximum length is 50 characters).

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted, and a UPD:AUTOMATION output message follows.

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5. REFERENCES

Input Message(s):

UPD:AUTOCHK

UPD:AUTOPROFILE

UPD:AUTOSCHED

Output Message(s):

UPD:AUTOMATION

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ID UPD:AUTOCHK
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Resuests that an office health check be performed (UPD:AUTOCHK) or requests that the results of the last office healthcheck be displayed (UPD:AUTOCHK:STATUS).

2. FORMAT

UPD:AUTOCHK:[STATUS]!

3. EXPLANATION OF MESSAGE

STATUS = Show the status of the last office health check that was performed.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by a UPD:AUTOCHK output message.

5. REFERENCES

Input Message(s):

UPD:AUTO

UPD:AUTOPROFILE

UPD:AUTOSCHED

Output Message(s):

UPD:AUTOCHK

UPD:AUTOMATION

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ID UPD:AUTOPROFILE
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests that the software update (SU) process automation office profile be changed according to the arguments and values specified in the input message. This SU process automation office profile is used when an SU is scheduled to be automatically installed. The values contained in the office profile are used as defaults when an SU is scheduled in the case where other information is not given.

For example, if an SU is scheduled for automatic installation and no installation state is specified, then the installation state defaults to what is listed in the office profile (*a* in this case).

NOTE: The valid values allowed for each argument are listed with the description of each argument.

2. FORMAT

```
UPD:AUTOPROFILE:{ [INSTATE "a"], [SOAKTM b], [ALARMLVL "c"],  
[CSCANS "d"], [WARNTM e], [CLRBMW "g"], [SUNOFF (h,i)],  
[MONOFF (h,i)], [TUEOFF (h,i)], [WEDOFF (h,i)], [THUOFF (h,i)],  
[FRIOFF (h,i)], [SATOFF (h,i)], [HCON j], [HCOFF k], [HCINFO l] }!
```

3. EXPLANATION OF MESSAGE

- a* = The install state. Valid values are:
- VFY
SOAK
OFC
- b* = The length of soak time desired for an SU that is automatically installed in the form HHMM.
- HH = Hours.
MM = Minutes.
- c* = The alarm level that should go off when an automated SU installation halts for any reason (MAJOR or MINOR).
- d* = State indicating whether or not SU process automation update office profile commands may be issued over the CSCANS interface (Y or N).
- e* = The time interval before SU automation starts that a warning message is desired in the form HHMM.
- HH = Hours.
MM = Minutes.

For example, if set to 0030 then a warning message prints out and an office alarm goes off 30 minutes before a scheduled SU begins automatic installation.

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- g* = State indicating whether or not SU process automation should remove the SU after it has completed the make official stage (Y or N).
- h* = The beginning of the time interval that SU automation is not allowed, for the given day.
- i* = The end of the time interval that SU automation is not allowed, for the given day.
- j* = A number indicating the health check condition that should be turned ON.
- k* = A number indicating the health check condition that should be turned OFF.
- l* = A number indicating a health check condition for which more information is desired.

4. SYSTEM RESPONSE

- PF = Printout follows. The request has been accepted. Followed by a UPD:AUTOMATION output message.

5. REFERENCES

Input Message(s):

UPD:AUTO

UPD:AUTOCHK

UPD:AUTOSCHED

Output Message(s):

UPD:AUTOMATION

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ID UPD:AUTOSCHED
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests that the named software update (SU) be scheduled for automatic installation or requests the status of the currently scheduled SU.

2. FORMAT

UPD:AUTOSCHED:{STATUS|[UPNM "a"],[DATE "b"],[TIME "c"],[STATE "d"]}]!

3. EXPLANATION OF MESSAGE

a = The 10 character software update name.

b = The date to automatically install the SU in the form MMDDYY.

MM = Month.

DD = Day.

YY = Year.

c = The time to automatically install the SU in the form HHMM.

HH = Hour.

MM = Minute.

d = The install state to automatically install the SU. Valid values are:

VFY

SOAK

OFC

STATUS = Show the status of the SU currently scheduled for automatic installation, if any.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by a UPD:AUTOMATION output message.

5. REFERENCES

Input Message(s):

UPD:AUTO

UPD:AUTOCHK

UPD:AUTOPROFILE

Output Message(s):

UPD:AUTOMATION

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ID UPD:BKOUT-A
GENERIC UNIX RTR R1.5, R6.4 and
R21.3
TYPE Input

1. PURPOSE

Requests that updates associated with broadcast warning messages (BWMs) be baked out. BWMs can only be backed out in the reverse order in which they were applied. Thus, backing out updates associated with a temporary BWM that is not the most current, causes the backout of more current BWMs.

2. FORMAT

UPD:BKOUT:{UPNM "a"|ALL|CONT}[,VLEV b]!

3. EXPLANATION OF MESSAGE

- a* = BWM specified as BWMyy-nnnn, DMTyy-nnnn, or CFTyy-nnnn where BWM, TMP (temporary) and CFT (craft) identify the category of BWM, yy is the last two digits of the year, and nnnn is the sequence number identifying the BWM.
- ALL** = Removes all temporary BWMs active in the system.
- CONT** = Continue backing out the BWMs from the last UPD:BKOUT command that failed.
- VLEV** = Verbose level.
- b* = Requests additional output from a field update process. Verbose flags may be set for UPD, ucm, ogen, oild, and dufr, field update processes. The flags must be entered in the order in which the processes are listed. To turn on the verbose output for a process, all process flags before that one must be used or set to zero.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by one or more UPD-BKOUT output messages.

5. REFERENCES

Input Messages
UPD:APPLY
UPD:DISPLAY
UPD:OMIT

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Output Messages

UPD-APPLY
UPD-BKOUT
UPD-BLDBOOT
UPD-CLR
UPD-DISPLAY
UPD-FTRC
UPD-OMDB
UPD-OMIT
UPD-PERM
UPD-PURGE
UPD-RECLAIM
UPD-REPT
UPD-RESET
UPD-UPNM
UPD-VFY

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ID UPD:BKOUT-B
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests that software updates be backed out. Software updates can be backed out only in the reverse order in which they were applied.

2. FORMAT

UPD:BKOUT:{UPNM "a"|ALL}[,OFC]!

3. EXPLANATION OF MESSAGE

a = Software update: specified as BWMyy-nnnn, TMPyy-nnnn (temporary), or CFTyy-nnnn (craft) where BWM, TMP, and CFT identify the category of software update, yy is the last two digits of the year, and nnnn is the sequence number identifying the software update (" " is required).

ALL = Remove all temporary software updates active in the system.

OFC = Backout software update *a* even though it is official.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by one or more UPD:COMMAND output messages.

5. REFERENCES

Input Message(s):

UPD:APPLY;BYTER
UPD:APPLY;FILER
UPD:APPLY;FUNCR
UPD:DISPLAY

Output Message(s):

UPD:COMMAND
UPD:REPT

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID UPD:BLDBOOT-A
GENERIC UNIX RTR R1.5, R6.4 and
R21.3
TYPE Input

1. PURPOSE

Calls ISGEN to rebuild the computer minimum-configuration or full-configuration boot image.

****CAUTION****

All existing data in the targeted boot image will be destroyed.

2. FORMAT

UPD:BLDBOOT[: [BOOTIMAGE "a"][, SGDB "b"][, SGEN "c"][, SHADOW "d"]

3. EXPLANATION OF MESSAGE

- a* = Specifies which boot image should be regenerated. The default /dmert rebuilds the minimum-configuration boot image; to rebuild the full-configuration boot image, use /appdmert.
- b* = The system generation (sg) data base to be used in building the boot image. The default data base for the minimum-configuration boot image is /data base/dmert.sg. The default data base for the full-configuration boot image is /data base/appdmert.sg.
- c* = Pathname of the process to be executed to build the boot image. See the User Guidelines in this manual for definitions of pathname and file. The default process pathname is /bin/isgen.
- d* = Pathname of a file used in building the boot image. The file insures availability of contiguous space and is essential to safe updating of the boot image. The default shadow file is /..dmert.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a UPD output message.

5. REFERENCES

Output Messages
UPD-APPLY

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID UPD:BLDBOOT-B
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Calls ISGEN to rebuild the computer minimum-configuration or full-configuration boot image.

****CAUTION****

All existing data in the targeted boot image will be destroyed.

2. FORMAT

UPD:BLDBOOT[:[BOOTIMAGE "a"][,SGDB "b"][,SGEN "c"][,SHADOW "d"]]:

3. EXPLANATION OF MESSAGE

- a* = Specifies which boot image should be regenerated. The default /dmert rebuilds the minimum-configuration boot image; to rebuild the full-configuration boot image, use /appdmert.
- b* = The system generation (sg) data base to be used in building the boot image. The default data base for the minimum-configuration boot image is /data base/dmert.sg. The default data base for the full-configuration boot image is /data base/appdmert.sg.
- c* = Pathname of the process to be executed to build the boot image. See the User Guidelines in this manual for definitions of pathname and file. The default process pathname is /bin/isgen.
- d* = Pathname of a file used in building the boot image. The file ensures availability of contiguous space and is essential to safe updating of the boot image. The default shadow file is /..dmert.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a UPD output message.

5. REFERENCES

Output Message(s)
UPD-COMMAND
UPD-REPT

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ID UPD:BLOCK
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests that an official software update be blocked or inhibited from being backed out. This message blocks the software update from being backed out and also blocks any other software updates below the one specified.

The UPD:BLOCK message should only be used when a software update name is specified. If it is necessary to block all software updates that have been made official, the UPD:BLOCK message should be used with the last software update that has been made official. This would block the last official software update and all previous official software updates.

2. FORMAT

UPD:BLOCK:UPNM "a"!

3. EXPLANATION OF MESSAGE

a = Software update: specified as *BWMyy-nnnn*, *TMPyy-nnnn* (temporary), or *CFTyy-nnnn* (craft) where *BWM*, *TMP*, and *CFT* identify the category of software update, *yy* is the last two digits of the year issued, and *nnnn* is the sequence number identifying the software update (" " is required).

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by one or more UPD:COMMAND output messages.

5. REFERENCES

Input Message(s):
UPD:BKOUT

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:BOLO
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests that the last official software update be backed out. No more than three official software updates are permitted to be backed out. The three software update names are listed on MCC Display Page 1950 next to indicators showing the back-out level of each software update. The LAST OFC software update was most recently applied and made official. The 2nd FROM TOP software update was made official before the LAST OFC software update. The 3rd FROM TOP software update was applied and made official before both the 2nd FROM TOP software update and the LAST OFC software update.

As a new software update is made official, it becomes the LAST OFC software update, and the previous LAST OFC and 2nd FROM TOP software updates are moved down to be the 2nd FROM TOP and 3rd FROM TOP software updates, respectively. The previous 3rd FROM TOP software update can no longer be backed out, and is therefore removed from the list of software updates permitted to be backed out.

Executing this input message (UPD:BOLO) in effect requests the back-out of the LAST OFC software update. Upon successful completion, the back-out removes the LAST OFC software update from the list of software updates permitted to be backed out and moves the 2nd FROM TOP and 3rd FROM TOP software updates up to be the new LAST OFC and 2nd FROM TOP software updates, respectively. After an official back-out there is no 3rd FROM TOP software update because one of the three software updates which could be backed out has been backed out. A software update name is added to the back-out list only when that software update is made official on the switch.

2. FORMAT

UPD:BOLO!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by one or more UPD:COMMAND output messages.

5. REFERENCES

Input Message(s):
UPD:APPLY;BYTER
UPD:APPLY;FILER
UPD:APPLY;FUNC
UPD:BKOUT
UPD:DISPLAY

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Output Message(s):

UPD:COMMAND

UPD:REPT

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ID UPD:CHG;APPLY
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Request to change the name of the apply software update for the EASY SU process (MCC Page 1940).

2. FORMAT

UPD:CHG:APPLY "a"!

3. EXPLANATION OF MESSAGE

a = The name of the software update or **none**. This can only be a temporary software update or a craft software update (software update name must start with TMP or CFT).

4. SYSTEM RESPONSE

NG = The software update name entered is invalid. See description for variable *a*.

PF = Printout follows. The request has been accepted.

5. REFERENCES

Input Message(s):
UPD:CHG;BKOUT
UPD:CHG;INST
UPD:START;EASY

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:CHG;BKOUT
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Request to change the name of the backout software update for the EASY SU process (MCC Page 1940).

2. FORMAT

UPD:CHG: BKOUT "a" !

3. EXPLANATION OF MESSAGE

a = The name of the software update or none. This can only be the name of a temporary software update or the name of a craft software update (software update name must start with TMP or CFT).

4. SYSTEM RESPONSE

NG = The software update name entered is invalid. Refer to the description for *a*.

PF = Printout follows. The request has been accepted.

5. REFERENCES

Input Message(s):
UPD:CHG;APPLY
UPD:CHG;INST
UPD:START;EASY

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:CHG;INST
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Request to change the name of the install software update for the EASY SU process (MCC Page 1940).

2. FORMAT

UPD:CHG:INST "a"!

3. EXPLANATION OF MESSAGE

a = The name of the software update. This can be any valid 10-character software update name.

4. SYSTEM RESPONSE

NG = No Good. The software update name entered is invalid. The request has been rejected.

PF = Printout follows. The request has been accepted.

5. REFERENCES

Input Message(s):

UPD:CHG;APPLY
UPD:CHG;BKOUT
UPD:START;EASY

Output Message(s):

UPD:COMMAND
UPD:REPT

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ID UPD:CHG;SKTM
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Request to change the soak timer interval for the install SU in the EASY SU process (MCC Page 1940).

2. FORMAT

UPD:CHG:SKTM (a,b)!

3. EXPLANATION OF MESSAGE

a = The number of hours the soak interval timer should run for the install software update (0-99).
b = The number of minutes the soak interval timer should run for the install software update (0-59).

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted.

5. REFERENCES

Input Message(s):
UPD:START;EASY

Output Message(s):
UPD:COMMAND
UPD:REPT

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID UPD:CLR-A
GENERIC UNIX RTR R1.5, R6.4 and
R21.3
TYPE Input

1. PURPOSE

Clears one or more broadcast warning messages (BWMs) from the computer field update directory.

****CAUTION****

Incorrect use of this message can result in the removal of needed files.

2. FORMAT

UPD:CLR: (BWM "a" | ALL) [, BSDIR "b"] [, VLEV c] !

3. EXPLANATION OF MESSAGE

- a* = A single BWM name or list of up to ten BWM names specified as BWMyy-nnnn, DMTyy-nnnn, or CFTyy-nnnn, where BWM, DMT, and CFT identify the category of BWM, yy is the last two digits of the year, and nnnn is the sequence number identifying the BWM. See the User Guidelines in this manual for instructions on entering a list of names.
- ALL** = Remove all BWMs in the base directory which match the BWM format *a* and which have been made official (UPD:PERM).
- b* = Pathname of the base directory. See the User Guidelines in this manual for definitions of pathname, directory, and file. The default is /etc/bwm.
- c* = Requests additional output from a field update process. Verbose flags may be set for UPD and bwmc1r. The flag must be entered in the order in which the processes are listed. To turn on the verbose output for bwmc1r, UPD's flags before that one must be used or set to zero.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a UPD-CLR output message.

5. REFERENCES

Input Message
UPD:PERM

Output Messages
UPD-APPLY
UPD-BKOUT
UPD-BLDBOOT

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UPD-CLR
UPD-DISPLAY
UPD-FTRC
UPD-OMIT
UPD-PERM
UPD-PURGE
UPD-RECLAIM
UPD-REPT
UPD-RESET
UPD-UPNM
UPD-VFY

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WARNING
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID UPD:CLR-B
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests that one or more software updates be cleared from the 3B software update directory.

****WARNING****

Incorrect use of this message can result in the removal of needed files.

2. FORMAT

UPD:CLR:BWM "a"[- "a"[- "a"...]]!

3. EXPLANATION OF MESSAGE

a = Software update name. A list of 1 to 10 software update names may be specified, in the form BWMyy-*nnnn*, TMPyy-*nnnn* (temporary), or CFTyy-*nnnn* (craft) where BWM, TMP, and CFT identify the category of software update, yy is the last two digits of the year, and *nnnn* is the sequence number identifying the software update.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted.

5. REFERENCES

Input Message(s):

UPD:CLRBWM
UPD:OFC

Output Message(s):

UPD:COMMAND
UPD:REPT

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ID UPD:CLRBWM
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests that a software update that has already been installed and made official be cleared from the /etc/bwm directory.

2. FORMAT

UPD:CLRBWM:BWM "a"!

3. EXPLANATION OF MESSAGE

a = A software update name.

4. SYSTEM RESPONSE

NG = No good. The message was not accepted because:

- Software update was not found.

PF = Printout follows. Followed by a UPD:COMMAND output message.

5. REFERENCES

Input Message(s):
UPD:CLR

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:CSCANS;REPT
GENERIC UNIX RTR R21.11, R21.15
later
TYPE Input

1. PURPOSE

Requests a report containing the current status of the active file receiving process for the Customer Service Computer Access Network Standards (CSCANS) interface.

2. FORMAT

UPD:CSCANS:REPORT!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted, and a UPD:CSCANS-REPT output message will follow.

5. REFERENCES

Input Message(s):
UPD:CSCANS;STOP
UPD:INITPW

Output Message(s):
UPD:COMMAND
UPD:CSCANS
UPD:CSCANS-REPT
UPD:REPT

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ID UPD:CSCANS;STOP
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests that the download of software update files from a remote source be terminated. If file transmission has begun, a session-disconnect message is sent to the remote end to notify the Customer Service Computer Access Network Standards (CSCANS) machine of the termination.

2. FORMAT

UPD:CSCANS:STOP!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted, and a UPD:CSCANS output message will follow.

5. REFERENCES

Input Message(s):
UPD:CSCANS;REPT

Output Message(s):
UPD:CSCANS
UPD:CSCANS-REPT

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ID UPD:DFC:FLASH
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Download a pumpcode file into a small computer system interface (SCSI) device file controller's (DFC) non-volatile FLASH memory.

The command can be used to request a download in three different ways.

1. Request the DFC driver automatically perform a download using a disk file constructed from fields in the DFC UCB record.
2. Request the DFC driver automatically perform a download using a disk file constructed from version information stored in HA memory.
3. Request that a user specified file be downloaded.

The command can also be used to check the integrity of a pumpcode file that is stored as a disk file.

NOTE: When the downloading is to be done automatically by the DFC driver; the driver will use the information stored in the DFC's UCB record to build the pumpcode file name. The file specified in the UCB record must exist in the directory /dfc, and the file name derived from the UCB record has the format xyz, where x is the 4-alphanumeric characters packcode value (i.e., u580) stored in the packcode field of the UCB, y is the 1-digit value stored in the version field of the the specified DFC's UCB, and z is the 1-digit value stored in the issue field of the UCB. An example of a typical pumpcode file name is u58090; the pumpcode version implied by this filename is 9, the pumpcode issue is 0, and the packcode number is u580.

2. FORMAT

This message has two formats.

- [1] UPD:FLASH;DFC a;
- [2] UPD:FLASH;DFC a:FN "b"[CHECKSUM];

3. EXPLANATION OF MESSAGE

a = Member number (0-255).

b = Full pathname that specifies the pumpcode file to be downloaded into SCSI DFC or to be checked for the integrity of its data.

CHECKSUM = When this option is used, the integrity of the pumpcode contained in the specified file will be verified; no pumpcode downloading will

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occur.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a UPD-FLASH, DFC output message.

5. REFERENCES

Input Message

UPD:FLASH;DFC

Output Messages

UPD-FLASH, DFC

Display/Menu Page Name

DISK FILE SYSTEM ACCESS

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ID UPD:DISPLAY-A
GENERIC UNIX RTR R1.5, R6.4 and
R21.3
TYPE Input

1. PURPOSE

Displays information (from the field update database) about computer field updates. The updates are selected on the basis of parameters, which supply cumulative restrictions.

To display all updates:

UPD:DISPLAY!

To display all BWM updates:

UPD:DISPLAY:CAT BWM!

To display all BWM updates that are file replacements:

UPD:DISPLAY:TYPE FILER,CAT BWM!

To display all temporary BWM updates that are file replacements:

UPD:DISPLAY:TYPE FILER,CAT BWM,STATUS TMP!

2. FORMAT

**UPD:DISPLAY:[UPNM "a"][, FN "b"][, TYPE c][, CAT d]
[, STATUS e][, LAST][, TIME f][, DB "g"][, VLEV h]!**

3. EXPLANATION OF MESSAGE

- a* = BWM. Specified as BWMyy-*nnn*, DMTyy-*nnn*, or CFTyy-*nnn* where BWM, DMT, and CFT identify the category of BWM, yy are the last two digits of the year, and *nnnn* is the sequence number identifying the BWM.
- b* = Pathname of the file that has been updated. See the User Guidelines in this manual for definitions of pathname and file.
- c* = Type of update. One of the following:
- DMERT (affecting UNIX® RTR-only boot file)
 - ADMRT (affecting application boot file)
 - BOOTBOTH (affecting either boot file)
 - BYTER (byte replacement)
 - FILER (file replacement)
 - FUNCR (function replacement)
- d* = Category of update (BWM, CFT, or DMT).

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- e* = Status of update or BWM. One of the following:
- PERM (permanent)
 - PBKT (pending backout)
 - PPERM (pending permanent)
 - PRCL (pending reclaim)
 - PTMP (pending temporary)
 - RCL (reclaimed)
 - TMP (temporary)
 - VERF (verify)
- LAST** = The last update of the given characteristics.
- f* = The earliest update time to be printed in the form *YYMMDDTTTT*.
- g* = Pathname of an alternate database. The default database is */etc/bwm/fudb*.
- h* = Requests additional output from a field update process. Verbose flags may be set for UPD and *fudisplay*. The flags must be entered in the order the processes are listed. To turn on the verbose output for *fudisplay*, UPD's flag must be used or set to zero.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a UPD-DISPLAY output message.

5. REFERENCES

Output Messages

UPD-APPLY
UPD-BKOUT
UPD-BLDBOOT
UPD-CLR
UPD-DISPLAY
UPD-FTRC
UPD-OMIT
UPD-PERM
UPD-PURGE
UPD-RECLAIM
UPD-REPT
UPD-RESET
UPD-UPNM
UPD-VFY

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ID UPD:DISPLAY-B
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests that information about software updates be displayed. The updates are selected on the basis of parameters which supply cumulative restrictions.

2. FORMAT

UPD:DISPLAY[:UPNM "a"][,STATUS b][,BACKLOG][,SUM][,V]!

3. EXPLANATION OF MESSAGE

BACKLOG = Updates that are in the backlog update database (BUD) file.

SUM = A short summary of the last official (BWM), craft (CFT), and temporary (TMP) software updates.

V = A detailed version (verbose) of all updates on the switch.

a = Software update name.

b = Status of update or software update. Valid values are:

OFC = Official.

TMP = Temporary.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by a UPD:DISPLAY output message.

Input Message(s):

UPD:APPLY;BYTER

UPD:APPLY;FILER

UPD:APPLY;FUNCR

UPD:BLDBOOT

UPD:OFC

Output Message(s):

UPD:COMMAND

UPD:DISPLAY

UPD:REPT

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ID UPD:DISPLYUPD
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests a display of the first portion of the specified section of the software update (SU) MSGS file on the MCC 1960 page for the SU that is currently loaded (using the UPD:UPNAME input message) on that page.

2. FORMAT

UPD:DISPLYUPD:{APPLY|SOAK|OFC|BKOUT|FILE}!

3. EXPLANATION OF MESSAGE

APPLY = Display the APPLY section of the MSGS file.
BKOUT = Display the BKOUT section of the MSGS file.
FILE = Display all sections of the MSGS file.
OFC = Display the OFC section of the MSGS file.
SOAK = Display the SOAK section of the MSGS file.

4. SYSTEM RESPONSE

NG = No good. The message was not accepted because:
- Software update name has not been entered via UPD:UPNAME command.
- Software update was not found.
PF = Printout follows.

5. REFERENCES

Input Message(s):
UPD:UPNAME

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:EXALL
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests execution of all messages in the specified section (APPLY, SOAK, OFC, or BKOUT).

2. FORMAT

UPD:EXALL : {APPLY|SOAK|OFC|BKOUT}[, UCL] !

3. EXPLANATION OF MESSAGE

APPLY = Execute messages in the APPLY section of the MSGS file.
SOAK = Execute messages in the SOAK section of the MSGS file.
OFC = Execute messages in the OFC section of the MSGS file.
BKOUT = Execute messages in the BKOUT section of the MSGS file.
UCL = Execute unconditionally without checking software update sequences.

4. SYSTEM RESPONSE

NG = No good. The message was not accepted because:
- Software update name has not been entered via UPD:UPNAME message.
- Software update was not found.
PF = Printout follows. Followed by a UPD:COMMAND or a UPD:REPT output message.

5. REFERENCES

Input Message(s):
UPD:UPNAME

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:EXNXT
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests execution of the next message command pointed to in the software update (SU) MSGS file in the specified section.

2. FORMAT

UPD:EXNXT : {APPLY|SOAK|OFC|BKOUT}[, UCL] !

3. EXPLANATION OF MESSAGE

APPLY = Execute messages in the APPLY section of the MSGS file.
SOAK = Execute messages in the SOAK section of the MSGS file.
OFC = Execute messages in the OFC section of the MSGS file.
BKOUT = Execute messages in the BKOUT section of the MSGS file.
UCL = Execute messages unconditionally without checking software update sequences.

4. SYSTEM RESPONSE

NG = No good. The message was not accepted because:
- Software update name has not been entered via UPD:UPNAME command.
- Software update was not found.
PF = Printout follows. Followed by a UPD:COMMAND or a UPD:REPT output message.

5. REFERENCES

Input Message(s):
UPD:UPNAME

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:EXPAND
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests that the software update expansion process that takes place automatically during the download of a software update be manually stopped (STOP), or requests that any compressed files in the software update specified (UPNM "a") be expanded to their original size so that software update application may begin immediately.

Note: the manual expansion is needed only if expansion was previously inhibited (through use of the STOP option), or if the expansion for the software update was previously aborted.

2. FORMAT

UPD:EXPAND:{UPNM "a"|STOP}!

3. EXPLANATION OF MESSAGE

a = The software update name. All files in the software update package specified will be expanded to the original file size so that software update application may follow.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by a UPD:COMMAND output message.

5. REFERENCES

Input Message(s):
IN:REM;REPT
UPD:CSCANS;REPT

Output Message(s):
IN:REM-REPT
UPD:COMMAND
UPD:CSCANS-REPT

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ID UPD:FLASH
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests an update of FLASH memory on a specified peripheral controller (PC). FLASH is a device designed to be programmed in a system with a standard 5 volt supply.

2. FORMAT

UPD:FLASH;*a b*[,FN "*c*"]!

3. EXPLANATION OF MESSAGE

- a* = Member name (HSDC, MTTYC, SCSDC, SDLC, or TTYC).
- b* = Member number (0-255).
- c* = This is the full base path name used to specify the files to be used to update the FLASH memory on the peripheral controller board. The actual filenames are generated by adding a hexadecimal number starting at zero to the end of the full base path name. If this option is not specified, the default full base path name is:

Member name	Default full base path name
HSDC	/iop/pccode/no4wide
MTTYC	/iop/pccode/mttycb
SCSDC	/iop/pccode/scsdcf
SDLC	/iop/pccode/no4wide
TTYC	/iop/pccode/no4wide

4. SYSTEM RESPONSE

- ?E = Invalid verb (system expecting UPD), missing or invalid keyword or data.
- ?I = Invalid data, missing data, or extra key word in first, second, or third parameter or data blocks.
- NG = No good. Cannot enable messages, access equipment configuration database (ECD), or PC is in wrong state to process input message. PC must be in the out-of-service (OOS) state, and its peripheral interface controller (IOP) must be in the active (ACT) state.
- PF = Printout follows. Followed by a UPD-FLASH output message.

5. REFERENCES

Output Message(s)
UPD-FLASH

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ID UPD:FTRC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Lists function information from a process file's symbol table.

The output includes the name of the file in which the function resides, the name of the function, its transfer vector address, and the virtual address and size of the function.

When a function has no transfer vector, the transfer vector field in the output will contain zero. If a process file has been updated by function replacement, the new addresses for the updated functions will be printed.

2. FORMAT

UPD:FTRC: FN "a", {FCN "b" | ADDR c | ALL}!

3. EXPLANATION OF MESSAGE

- a* = Full pathname of the process file. See the User Guidelines in this manual for definitions of pathnames and file.
- b* = Print information for the function with name *b* in process file *a*. The maximum length for a function name within a *pfile* is eight characters.
- c* = Print information for the function encompassing the virtual address *c* in process file *a*.
- ALL** = Print information for all functions in process file *a*.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by UPD output messages.

5. REFERENCES

Input Message
UPD:APPLY;FUNCRC

Output Messages
UPD-APPLY
UPD-BKOUT
UPD-DISPLAY

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ID UPD:G;APPLPROC
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Executes the application process (/prc/supr/applproc) on the computer. UNIX® RTR supplies a "dummy" application process that performs no action. If an application calls for some application-specific processing during the installation of a system update, the application may replace the "dummy" application process with an application-specific processes.

2. FORMAT

UPD:GEN;APPLPROC[:ARG "a"]!

3. EXPLANATION OF MESSAGE

a = An argument string that is to be passed to the application process.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.

PF = Printout follows. Followed by a UPD-GEN,APPLPROC output message.

5. REFERENCES

Input Messages

OP:G;READLOG
UPD:G;BACKOUT
UPD:G;COMMIT
UPD:G;CONTINUE
UPD:G;ENTER
UPD:G;PROCEED
UPD:G;RESTORE

Output Messages

OP-GEN, READLOG
UPD-G, APPLPROC
UPD-G, BACKOUT
UPD-G, COMMIT
UPD-G, CONTINUE
UPD-G, ENTER
UPD-G, PROCEED
UPD-G, RESTORE

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ID UPD:G;BKOUT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Prepares the computer for booting from the old generic if it is necessary to back out of the new generic.

2. FORMAT

UPD:GEN;BACKOUT[:UCL]!

3. EXPLANATION OF MESSAGE

UCL = Execute unconditionally; context checks are ignored.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.

PF = Printout follows. Followed by a UPD-GEN,BACKOUT output message.

5. REFERENCES

Input Messages

OP:G;READLOG
STOP:GEN
STP:GEN
UPD:G;COMMIT
UPD:G;CONTINUE
UPD:G;ENTER
UPD:G;PROCEED
UPD:G;RESTORE

Output Messages

OP-G, READLOG
STOP-GEN
STP-GEN
UPD-G, BACKOUT
UPD-G, COMMIT
UPD-G, CONTINUE
UPD-G, ENTER
UPD-G, PROCEED
UPD-G, RESTORE

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ID UPD:G;COMMIT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Commits to the new computer generic. This completes the propagation of the new generic into the system after the soak period.

2. FORMAT

UPD:GEN;COMMIT[;UCL]!

3. EXPLANATION OF MESSAGE

UCL = Unconditional execution; context checks are ignored.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.

PF = Printout follows. Followed by a UPD-GEN, COMMIT output message.

5. REFERENCES

Input Messages

OP:G;READLOG
STOP:GEN
UPD:G;BACKOUT
UPD:G;CONTINUE
UPD:G;ENTER
UPD:G;PROCEED
UPD:G;RESTORE

Output Messages

OP-G, READLOG
STOP-GEN
UPD-G, BACKOUT
UPD-G, COMMIT
UPD-G, CONTINUE
UPD-G, ENTER
UPD-G, PROCEED
UPD-G, RESTORE

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ID UPD:G;CONT
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Continues the execution of a computer system update process that requested a manual action via a UPD-GEN output message; acknowledges that the action requested has been completed. It also continues the execution of a system update process that has reported that it has stopped via a UPD-GEN output message. The error code from the STOPPED message should be examined and any necessary corrective action taken before entering this input message.

2. FORMAT

UPD:GEN;CONTINUE!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.

PF = Printout follows. Followed by a UPD-GEN,CONTINUE output message.

5. REFERENCES

Input Messages

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, CONTINUE
UPD-G, ENTER
UPD-G, PROCEED
UPD-G, RESTORE

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID UPD:G;ENTER
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Enters the new generic data into the computer system. This message is the first step of the system update procedure used to introduce a new generic into the system. Up to three different sequences of load disk from tape (LDFT) formatted tapes can be used to update a disk pair. Different disk layouts on each sequence of tapes will be accepted only for the off-line disk method and only if the partition affected by the different disk layout was not updated in a previous sequence.

****CAUTION****

Attention all SUPR users. During partial updates, the volume table of contents (VTOC) structure for all partitions that are not updated must be identical to the disk VTOC on all tape sequences. If they are not identical, then the starting location of some of the partitions will not match their actual starting location on the disk.

2. FORMAT

UPD:GEN;ENTER[;UCL]:{BKPRT|OFLDISK[a][,NOBKUPD]},SRC "b",
{DEST "c"|DEST ("c"[,"c"...])}[,SEQOPT d|,SEQOPT (d[,d...])]!

3. EXPLANATION OF MESSAGE

- UCL** = Unconditional execution. If this option is not specified, the system update log file must be empty or removed. (The log file is in /etc/log/suprlog; see OP:GEN.)
- BKPRT** = Backup partition method specification. This method requires that the disk layout in the new generic must be the same (for example, the Volume Table of Contents (VTOC) partition in the new generic must be identical to the VTOC in the old generic) and all the disk partitions to be updated must have a corresponding backup partition (for example, root/broot). The set of unused backup partitions will be updated (for example, if root is being used, broot will be updated).
- OFLDISK** = Off-line disk method specification. This method requires that each disk pair to be updated must be duplex (for example, both disks active). One of the disks will be removed from service and the new generic data will be copied to this disk. The disk will also be marked off-line.
- a** = Unit number of the disk file controller (DFC). Used to determine which moving head disk (MHD) unit(s) will be taken off-line (for the

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off-line disk method). If omitted, DFC 1 will be selected.

NOBKUPD = Do not update backup partitions during off-line disk update procedures.

b = Special device file name that specifies the input magnetic tape. The name of the tape unit is of the form /dev/mt*nn* or mt?, where *nn* is a two-digit hexadecimal number and ? is the MTC controller number.

c = Special device file name that specifies the VTOC for the disk to be updated. See the User Guidelines in this manual for descriptions and examples of tape device names. Up to ten destinations may be specified. The file name (full pathname) cannot be greater than 40 characters long.

d = Tape sequence options that are to be used for each destination that was specified. The possible values for the tape sequence options are:

SGL = update a disk using a single sequence of tapes

DBL = update a disk using a double sequence of tapes

TPL = update a disk using a triple sequence of tapes

If a sequence option is not specified at all (the SEQOPT keyword is not used on the command line), the default values are used (double sequence for the bootdisk, single sequence for non-bootdisks). If default tape sequence options are not desired for all destinations, then all the tape sequence options must be specified (even the tape sequences using default values). If tape sequence options are specified, the number of specified tape sequence options must equal the number of specified destinations. The maximum number of tape sequence options allowed on the enter command line is ten.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.

PF = Printout follows. Followed by the UPD-GEN, ENTER output message.

5. REFERENCES

Input Messages

OP:G;READLOG

STOP:GEN

STP:GEN

UPD:G;BACKOUT

UPD:G;COMMIT

UPD:G;CONTINUE

UPD:G;PROCEED

UPD:G;RESTORE

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Output Messages

OP-G, READLOG
STOP-GEN
STP-GEN
UPD-G, BACKOUT
UPD-G, COMMIT
UPD-G, CONTINUE
UPD-G, ENTER
UPD-G, PROCEED
UPD-G, RESTORE

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ID UPD:G;PROCD
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Prepares the computer system for booting from the new generic. This message must be executed after the UPD:GEN;ENTER input message.

2. FORMAT

UPD:GEN;PROCEED[;UCL]!

3. EXPLANATION OF MESSAGE

UCL = Unconditional execution; context checks are ignored. If this option is specified, it will be ignored unless the previous step (entering UPD:GEN;ENTER) was not completed successfully.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.

PF = Printout follows. Followed by the UPD-GEN,PROCEED output message.

5. REFERENCES

Input Messages

OP:G;READLOG
STOP:GEN
UPD:G;BACKOUT
UPD:G;COMMIT
UPD:G;CONTINUE
UPD:G;ENTER
UPD:G;RESTORE

Output Messages

OP-G, READLOG
STOP-GEN
UPD-G, BACKOUT
UPD-G, COMMIT
UPD-G, CONTINUE
UPD-G, ENTER
UPD-G, PROCEED
UPD-G, RESTORE

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ID UPD:G;RESTR
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Restores the old generic by removing the new generic from the computer system.

It is suggested that this restore message be executed after the UPD:GEN;ENTER and UPD:GEN;PROCEED messages have completed successfully. However; since only unconditional RESTORE's are valid the RESTORE Command may be executed whenever the need arises to restore the old generic.

If the new generic was introduced using the backup partition method (UPD:GEN;ENTER), the disk to be updated with the old generic and its mate must be active, even if only one of them was originally updated. For example, if moving head disk 0 (MHD0) was updated, then moving head disk 1 (MHD1) should be restored using RST:MHD before this message is executed.

2. FORMAT

UPD:GEN;RESTORE ;UCL!

3. EXPLANATION OF MESSAGE

UCL = Execute unconditionally; ignore context checks. If this option is specified, it will be ignored if the previous step (entering UPD:GEN;PROCEED) completed successfully.

4. SYSTEM RESPONSE

NG = No good. Process not initiated.

PF = Printout follows. Followed by the UPD-GEN,RESTORE output message.

5. REFERENCES

Input Messages

OP:G;READLOG
STOP:GEN
UPD:G;BACKOUT
UPD:G;COMMIT
UPD:G;CONTINUE
UPD:G;ENTER
UPD:G;PROCEED
UPD:G;RESTORE

Output Messages

OP-G, READLOG
STOP-GEN

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ID UPD:GENP
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

To manually control the generation of update files (ufiles) and product files (pfiles) generated during the SOAK stage of an SU installation in preparation for the OFFICIAL stage of the SU installation. If UPD:GENP:STOP is used, all files generated up to this point will remain. Pfile and ufile generation will continue with the UPD:GENP:RESUME command. If UPD:GENP:QUIT is used, all files that have been generated so far will be deleted unconditionally.

2. FORMAT

UPD:GENP:{STOP|RESUME|QUIT}!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a UPD:COMMAND or a UPD:REPT output message.

5. REFERENCES

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:INITPW
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests that the password, the number of login attempts and/or the key, which are used by the Customer Service Computer Access Network Standards (CSCANS) interface, be initialized. Note that one, two or all three of these arguments may be specified for a given invocation of this input message, with the exception that if a new key is specified, then a new password must also be specified.

This command should be used initially to setup the password and key used by the CSCANS interface. It should also be used to reinitialize the password and key after the CSCANS interface has been locked out of service due to too many failed login attempts.

This command may also be used to initialize the number of failed login attempts allowed and to initialize the key used to decode the password.

2. FORMAT

UPD:INITPW:{PASSWD *a* [,KEY *c*] [,ATTEMPTS *b*] |ATTEMPTS *b*}!

3. EXPLANATION OF MESSAGE

- a* = The new password to be used, with a minimum of six characters. It should consist of at least two alphabetic characters and at least one numeric or special character.
- b* = The number of failed successive login attempts allowed through the CSCANS interface before it is locked out of service. If not specified, the default is 3.
- c* = The new key to be used, consisting of exactly two characters.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by a UPD:COMMAND output message.

5. REFERENCES

Input Message(s):
UPD:CSCANS;REPT
UPD:CSCANS;STOP

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:NXTWNDW
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests display of the next portion of MSGS file on the MCC 1960 page for the SU that is already loaded on the MCC 1960 page.

2. FORMAT

UPD:NXTWNDW!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NG = No good. The message was not accepted because:

- A software update name for the MCC 1960 page has not been entered using
UPD:UPNAME command.
- Software update was not found.

5. REFERENCES

Input Message(s):
UPD:UPNAME

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:OFC
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests updates associated with a temporary software update be made permanent. This must be done to one software update at a time, beginning with the oldest temporary software update and continuing with the order in which they were applied.

2. FORMAT

UPD:OFC:UPNM "a"[,UCL]!

3. EXPLANATION OF MESSAGE

a = Software update: Specified a **BWMyy-nnnn**, **TMPy-y-nnnn** (temporary), or **CFTyy-nnnn** (craft) where **BWM**, **TMP**, and **CFT** identify the category of software update; **yy** is the last two digits of the year, and **nnnn** is the sequence number identifying the software update ("" is required).

UCL = Unconditionally make official.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by a **UPD:COMMAND** or a **UPD:REPT** output message.

5. REFERENCES

Input Message(s):
UPD:BKOUT
UPD:DISPLAY

Output Message(s):
UPD:COMMAND
UPD:DISPLAY
UPD:REPT

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ID UPD:OMDB-A
GENERIC UNIX RTR R1.5, R6.4, and
R21.3
TYPE Input

1. PURPOSE

Updates either the message class or the alarm level for either one or a list of message keys in the OMDB disk file. Successful updates are logged so that they can be reapplied after a field update.

2. FORMAT

UPD:OMDB;KEY *a*:{MSGCLS *b*|ALARM *c*}!

3. EXPLANATION OF MESSAGE

- a* = Message key (or list of keys) in the range 0 to 8000.
- b* = Numeric value for message class in range 0 to 225.
- c* = One of following: CRIT, MAJ, MIN, MAN, ACT, INFO, VAR.

CRIT — Critical Alarm. Immediate action required.
MAJ — Major Alarm. Immediate action required.
MIN — Minor Alarm. Action required.
MAN — Manually requested report.
ACT — Automatically generated report. It may require some action to be taken.
INFO — Automatically generated report for information only.
VAR — Variable Alarm supplied by client process. If the client process does not specify it, the alarm is defaulted to INFO.

4. SYSTEM RESPONSE

- IP = In progress. Followed by the UPD-OMDB output message.
- NG = No good. Includes one of the following:
 - INVALID ALARM
Alarm is not one of the seven valid alarm levels.
 - INVALID KEY
A message key is not within the valid range.
 - INVALID MSGCLS
Message class is not within the valid range.
 - SYNTAX ERROR
Message is not in the correct format.
 - TOO MANY KEYS
Maximum of 32 keys are allowed per message.

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5. REFERENCES

Input Messages

ACTV:OMDB

APPLY:OMDB

OP:OMDB

Output Message

UPD-OMDB

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ID UPD:OMDB-B
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Updates either the message class or the alarm level for either one or a list of message keys in the OMDB disk file. Successful updates are logged so that they can be reapplied after a field update.

2. FORMAT

UPD:OMDB;KEY *a*:{MSGCLS *b*|ALARM *c*}!

3. EXPLANATION OF MESSAGE

- a* = Message key (or list of keys) in the range 0 to 8000.
- b* = Numeric value for message class in range 0 to 225.
- c* = One of following: CRIT, MAJ, MIN, MAN, ACT, INFO, VAR.

CRIT — Critical Alarm. Immediate action required.

MAJ — Major Alarm. Immediate action required.

MIN — Minor Alarm. Action required.

MAN — Manually requested report.

ACT — Automatically generated report. It may require some action to be taken.

INFO — Automatically generated report for information only.

VAR — Variable Alarm supplied by client process. If the client process does not specify it, the alarm is defaulted to INFO.

4. SYSTEM RESPONSE

IP = In progress. Followed by the UPD-OMDB output message.

NG = No good. Includes one of the following:

- INVALID ALARM

Alarm is not one of the seven valid alarm levels.

- INVALID KEY

A message key is not within the valid range.

- INVALID MSGCLS

Message class is not within the valid range.

- SYNTAX ERROR

Message is not in the correct format.

- TOO MANY KEYS

Maximum of 32 keys are allowed per message.

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5. REFERENCES

Input Messages

ACTV:OMDB

APPLY:OMDB

OP:OMDB

Output Message

UPD-OMDB

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CAUTION
INAPPROPRIATE USE OF THIS MESSAGE MAY
INTERRUPT OR DEGRADE SERVICE. READ
PURPOSE CAREFULLY.

ID UPD:OMIT
GENERIC UNIX RTR R1.5, R6.4,
R21.3
TYPE Input

1. PURPOSE

Removes from further consideration a pending computer field update (that is, one that has been interrupted). This command effectively redefines the BWM containing the omitted update, and should be used only on updates which cannot be reset or continued.

****CAUTION****

This message should be used only as a last resort. It should never be used without expert technical assistance.

2. FORMAT

UPD:OMIT: [,VLEV a]!

3. EXPLANATION OF MESSAGE

a = Requests additional output from a field update process. Verbose flags may be set for UPD and fuomit. The flags must be entered in the order the processes are listed. To turn on the verbose output for fuomit, UPD's flag must be used or set to zero.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by UPD output messages.

5. REFERENCES

Input Messages
UPD:BKOUT
UPD:PERM
UPD:RESET

Output Messages
UPD-APPLY
UPD-BKOUT
UPD-BLDBOOT
UPD-CLR
UPD-DISPLAY
UPD-FTRC
UPD-OMIT
UPD-PERM
UPD-PURGE
UPD-RECLAIM
UPD-REPT

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UPD-RESET
UPD-UPNM
UPD-VFY

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ID UPD:PERM
GENERIC UNIX RTR R1.5, R6.4,
R21.3
TYPE Input

1. PURPOSE

Makes updates associated with a temporary broadcast warning message (BWM) permanent. Only the oldest temporary BWM may be made permanent.

2. FORMAT

UPD:PERM: {UPNM "a"|CONT}[,VLEV b]!

3. EXPLANATION OF MESSAGE

- a* = BWM. Specified as BWMyy-*nn*, DMTyy-*nnnn*, or CFTyy-*nnnn*, where BWM, DMT, and CFT identify the category of the BWM, *yy* is the last two digits of the year, and *nnnn* is the sequence number identifying the BWM.
- CONT** = Attempt to complete the UPD:PERM input message that failed.
- b* = Requests additional output from a field update process. Verbose flags may be set for UPD, ucm, ogen, and oild. The flags must be entered in the order in which the processes are listed. To turn on the verbose output for a process, all process flags before that one must be used or set to zero.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by the appropriate UPD output messages.

5. REFERENCES

Input Messages

UPD:BKOUT
UPD:BLDBOOT
UPD:DISPLAY
UPD:OMIT
UPD:RESET

Output Messages

UPD-APPLY
UPD-BKOUT
UPD-BLDBOOT
UPD-CLR
UPD-DISPLAY
UPD-FTRC
UPD-OMIT
UPD-PERM
UPD-PURGE

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UPD-RECLAIM
UPD-REPT
UPD-RESET
UPD-UPNM
UPD-VFY

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ID UPD:PRINT
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests printing of the specified section or all the sections of the software update (SU) MSGS file on the receive-only printer (ROP). This command applies to the SU that is currently loaded on the MCC 1960 page.

2. FORMAT

UPD:PRINT:{APPLY|SOAK|OFC|BKOUT|FILE}!

3. EXPLANATION OF MESSAGE

APPLY = Print the APPLY section of the MSGS file.
SOAK = Print the SOAK section of the MSGS file.
OFC = Print the OFC section of the MSGS file.
BKOUT = Print the BKOUT section of the MSGS file.
FILE = Print all the sections of the MSGS file.

4. SYSTEM RESPONSE

NG = No good. The message was not accepted because:
- Software update name has not been entered via UPD:UPNAME input message
(for the MCC 1960 page)
- Software update was not found.
PF = Printout follows.

5. REFERENCES

Input Message(s):
UPD:UPNAME

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:PRINT;BWM
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests printing of the specified file associated with the software update that is currently loaded on the MCC 1960 page on the receive-only printer (ROP).

The user will have the ability to print American Standard Code for Information Interchange (ASCII) files on the ROP. If the desired file is not an ASCII file, an error message will print on the ROP.

2. FORMAT

UPD:PRINT:BWMFILE, FN "a"!

3. EXPLANATION OF MESSAGE

a = Name of file within the software update package.

4. SYSTEM RESPONSE

NG = No good. File not found. The message was not accepted because:

- The software update name has not been entered (on the MCC 1960 page) using the UPD:UPNAME input message.
- The file does not exist in the software update directory.
- The file is not an ASCII file.

PF = Printout follows. The request has been accepted. Followed by a UPD:PRINT-BWM or a UPD:REPT output message.

5. REFERENCES

Input Message(s):
UPD:UPNAME

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:PRINT;SKTM
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests the printing of the soak timer information on the receive-only printer (ROP). If a software update is not presently soaking, the request will abort and a message will print on the ROP.

2. FORMAT

UPD:PRINT:SKTM!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a UPD:PRINT:SOAK or a UPD:REPT output message.

5. REFERENCES

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:PRVWNDW
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests that the previous portion of MSGS file be displayed on the MCC 1960 page, for the SU that is currently loaded on the MCC 1960 page.

2. FORMAT

UPD:PRVWNDW!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NG = No good. The message was not accepted because:

- Software update name has not been entered on the MCC 1960 page using the UPD:UPNAME input message.
- Software update was not found.

PF = Printout follows. May be followed by a UPD:COMMAND or a UPD:REPT output message.

5. REFERENCES

Input Message(s):
UPD:UPNAME

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:PURGE
GENERIC UNIX RTR R1.5, R6.4,
R21.3
TYPE Input

1. PURPOSE

Purges records from the 3B20D or 3B21D computer field update database.

2. FORMAT

UPD:PURGE: {UPNM "a"|ALL} [,VLEV b]!

3. EXPLANATION OF MESSAGE

- a* = Broadcast Warning Message (BWM): specified as BWMyy-nnnn, DMTyy-nnnn, or CFTyy-nnnn where BWM, DMT, and CFT identify the category of BWM, yy is the last two digits of the year, and nnnn is the sequence number identifying the BWM.
- ALL** = Purge information on all updates.
- b* = The flag *b* requests additional output from a field update process. Verbose flags may be set for UPD and fupurge. The flags must be entered in the order in which the processes are listed. To turn on the verbose output for a fupurge, UPD's flag must be set to zero.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by UPD output messages.

5. REFERENCES

Output Messages
UPD-APPLY
UPD-BKOUT
UPD-BLDBOOT
UPD-CLR
UPD-DISPLAY
UPD-FTRC
UPD-OMIT
UPD-PERM
UPD-PURGE
UPD-RECLAIM
UPD-REPT
UPD-RESET
UPD-UPNM
UPD-VFY

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ID UPD:RCVRY
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests a program update roll backward or roll forward operation.

The roll forward operation is normally used when it is reasonably certain that the update operation in question did not cause the inconsistency (such as an installed update causing a processor boot). This may result in updates having to be reapplied. The roll backward operation will attempt to remove the update inconsistency by removing temporary updates until consistency is restored.

2. FORMAT

UPD:RCVRY:{BKWD|FRWD}!

3. EXPLANATION OF MESSAGE

BKWD = Perform backward synchronization; that is, recover from an update inconsistency by removing the appropriate temporary update(s) from the affected processor(s) and file(s).

FRWD = Perform forward synchronization; that is, recover from an update inconsistency by reinstalling the appropriate temporary update(s) in the affected processor(s) and files(s).

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by a UPD:COMMAND output message.

5. REFERENCES

Input Message(s):
UPD:VFYCON

Output Message(s):
UPD:COMMAND
UPD:REPT
UPD:VFYCON

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ID UPD:REBOOT
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests that the program update database be updated to reflect the backing out of any temporary 3B20D/3B21D (3B) updates active at the time of the reboot.

The Software Update Processes will be informed automatically as part of a normal boot that a system reboot has occurred. Whenever a level 2 (or higher) reboot occurs, all temporary updates are, by definition, backed out.

2. FORMAT

UPD:REBOOT!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by one or more UPD:COMMAND or UPD:INFO output message(s).

RL = Retry later. Another UPD input message is active.

5. REFERENCES

Input Message(s):

UPD:BKOUT
UPD:DISPLAY
UPD:UPNAME

Output Message(s):

UPD:COMMAND
UPD:DISPLAY
UPD:INFO
UPD:REPT

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ID UPD:RECLAIM
GENERIC UNIX RTR R1.5, R6.4,
R21.3
TYPE Input

1. PURPOSE

Reclaims unused patch space in function-replaced pfiles. UPD:RECLAIM reclaims space occupied by functions that have since been replaced by a permanent update activity and by UPD synchronization primitives that are no longer needed. UPD:RECLAIM will fail to reclaim available space if temporary broadcast warning messages (BWMs) are outstanding, or if one instance of a process requires an old version of a replaced function.

2. FORMAT

UPD:RECLAIM: {FN "a"|ALL|CONT}[,WTIME b][,VLEV c][,UCL]!

3. EXPLANATION OF MESSAGE

- a* = Pathname(s) of the file(s) for which the old text space will be reclaimed. May be a single name or a list of up to 32 names. See the User Guidelines, in Section 2 of this manual, for definitions of pathname and file, and for instructions on entering a list of names.
- ALL** = Reclaim the old text space in all non-reclaimed function-replaced files.
- CONT** = Continue the UPD:RECLAIM input message that failed.
- b* = The number of seconds for the automatic backout wait. The default is 300 seconds.
- c* = The flag *c* requests additional output from a field update process. Verbose flags may be set for UPD, ucm, ogen, oild, dufr, and prchk. The flags must be entered in the order in which the processes are listed. To turn on the verbose output for a process, all process flags before that one must be used or set to zero.
- UCL** = Perform the **RECLAIM** regardless of the patch count.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a UPD-RECLAIM output message.

5. REFERENCES

Input Messages
UPD:BLDBOOT
UPD:DISPLAY

Output Messages
UPD-APPLY
UPD-BKOUT
UPD-BLDBOOT

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UPD-CLR
UPD-DISPLAY
UPD-FTRC
UPD-OMIT
UPD-PERM
UPD-PURGE
UPD-RECLAIM
UPD-REPT
UPD-RESET
UPD-UPNM
UPD-VFY

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ID UPD:RECOVERY
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests a program update roll backward or roll forward operation.

2. FORMAT

UPD:RECOVERY:{BKWD|FRWD}!

3. EXPLANATION OF MESSAGE

BKWD = Perform backward synchronization; that is, recover from an update inconsistency by removing the appropriate update(s) from the affected processor(s) and file(s).

FRWD = Perform forward synchronization; that is, recover from an update inconsistency by reinstalling the appropriate update(s) to the affected processor(s) and files(s).

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by a UPD:COMMAND output message.

5. REFERENCES

Input Message(s):
UPD:RCVRY

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:REDUCE
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests smaller, more concise update database entries after all updates on the 3B20D/3B21D (3B) have been made official. The entries are placed in a backup update database (/etc/Bud). The existing central update database (/etc/Cud) file is reduced so that the update entries for those SUs which can still be backed out normally or through an official backout (UPD:BOL0) are kept in the Cud file, while all other entries are saved in a more concise format in the backup update database.

2. FORMAT

UPD:REDUCE[:PTLD]!

3. EXPLANATION OF MESSAGE

PTLD = Allow for the point load which must have the sequence number reset to zero.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by one or more UPD:COMMAND or UPD:REPT output messages.

RL = Retry later. Another UPD input message is active.

5. REFERENCES

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:RESET-A
GENERIC UNIX RTR R1.5, R6.4 and
R21.3
TYPE Input

1. PURPOSE

If an operation to a computer field update fails, that update's status may be "reset" to a previously "accepted" state. For example, a UPD:RESET input message may cause an incomplete UPD:PERM input message that is marked pending official (PPERM) to revert to the temporary (TMP) state.

2. FORMAT

UPD:RESET[:VLEV *a*]!

3. EXPLANATION OF MESSAGE

a = The flag, *a* requests additional output from a field update process. Verbose flags may be set for UPD and ucm. The flags must be entered in the order the processes are listed. To turn on the verbose output for ucm, UPD's flag must be used or set to zero.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by UPD output messages.

5. REFERENCES

Input Messages

UPD:DISPLAY
UPD:OMIT
UPD:PERM
UPD:RECLAIM

Output Messages

UPD-APPLY
UPD-BKOUT
UPD-BLDBOOT
UPD-CLR
UPD-DISPLAY
UPD-FTRC
UPD-OMIT
UPD-PERM
UPD-PURGE
UPD-RECLAIM
UPD-REPT
UPD-RESET
UPD-UPNM
UPD-VFY

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ID UPD:RESET-B
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests that the soak timer duration (TM) of the SU that is currently soaking be updated, or that the soak timer for the SU currently soaking be stopped (ABORT), or that the line number (LINE) to be executed next for the SU loaded on the MCC 1960 page be changed.

2. FORMAT

UPD:RESET:[LINE *a*|TM (*b*,*c*)|ABORT]!

3. EXPLANATION OF MESSAGE

a = Reset execution to a specified line number displayed on the "1960" SU Installation page (MSGs file). Line number is a 3-digit number.
b = Number of hours in the software update soak interval (0-99).
c = Number of minutes in the software update soak interval (0-59).
ABORT = Stop the soak timer.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a UPD:COMMAND or a UPD:REPT output message.

5. REFERENCES

Input Message(s)
UPD:EXALL
UPD:EXNXT

Output Message(s)
UPD:COMMAND
UPD:REPT

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ID UPD:START;EASY
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests that execution of the software update easy SU process be started. The status of this process may be observed using the MCC 1940 page.

2. FORMAT

UPD:START:EASYBWM!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a UPD:COMMAND or a UPD:REPT output message.

NG = No good. The message was not accepted because:

- Easy SU is already in the IN PROGRESS or COMPLETED state.
- The INSTALL BWM, APPLY BWM or BACKOUT BWM name is incorrect.
- The INSTALL BWM name contains the word NONE.

5. REFERENCES

Input Message(s):
UPD:CHG;INST
UPD:DISPLAY

Output Message(s):
UPD:COMMAND
UPD:DISPLAY
UPD:REPT

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ID UPD:STOP;EXC
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Stops current execution of the software update (SU) installation process. This command may be used to stop an SU installation that was started using the MCC 1960 page or the MCC 1940 page.

2. FORMAT

UPD:STOP:EXC!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = The message was accepted and the action completed.

5. REFERENCES

Input Message(s):
UPD:DISPLAY

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:STOP;SOAK
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

This input message should be used in conjunction with easy SU installation (MCC page 1940). It requests that the easy SU installation process stop the SU installation after the SOAK section of the SU has been completed. This input message should be used BEFORE easy SU installation is started.

2. FORMAT

UPD:STOP:SOAK!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Good. The request has been accepted.

5. REFERENCES

Input Message(s):
UPD:CHG;INST
UPD:START;EASY

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:UPDCON
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests verification of software update consistency and a summary of any software update inconsistencies that exist in the system.

2. FORMAT

UPD:UPDCON!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows.

5. REFERENCES

Input Message(s):
UPD:VFYCON

Output Message(s):
UPD:REPT
UPD:VFYCON

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ID UPD:UPDDSPY
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests information about updates to the system through software update (SU) procedures.

Format 1 requests update information relating to a specific software update name.

Format 2 requests update information about all official (OFC) or temporary (TEMP) software updates.

Format 3 requests information on all (ALL) updates. The BACKLOG option retrieves concise update information entries of all updates stored in /etc/Bud via the UPD:REDUCE input message. The SUM option displays update information name and status of the last official, temporary, and craft software update (SUs beginning with BWM, TMP, and CFT respectively) applied to the switch.

2. FORMAT

- [1] UPD:UPDDSPY:BWM "*a*"!
- [2] UPD:UPDDSPY:{OFC | TEMP}, [V]!
- [3] UPD:UPDDSPY:ALL, [BACKLOG|SUM|V]!

3. EXPLANATION OF MESSAGE

a = Software update name specified as BWMyy-*nnnn*, TMPyy-*nnnn* (temporary), or CFTyy-*nnnn* (craft) where BWM, TMP, and CFT identify the category of software update, yy is the last two digits of the year issued, and *nnnn* is the sequence number identifying the software update.

BACKLOG = Retrieves concise information on all SUs for which update information is stored in the backup update database.

OFC = Official update.

SUM = Displays update information for the last official (BWM), temporary (TMP), and craft (CFT) software updates installed in the switch.

TEMP = Temporary update.

V = A detailed (verbose) version of all updates on the switch.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted and a UPD:DISPLAY output message follows.

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5. REFERENCES

Input Message(s):

UPD:DISPLAY

UPD:REDUCE

Output Message(s):

UPD:DISPLAY

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ID UPD:UPNAME
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests a check for the existence of a software update (SU) in the base directory, and if the SU exists it is loaded on to the MCC 1960 page.

2. FORMAT

UPD:UPNAME,BWM "a"!

3. EXPLANATION OF MESSAGE

a = Software update name specified as BWMyy-nnnn, TMPyy-nnnnn (temporary) or CFTyy-nnnn (craft) where BWM, TMP and CFT identify the category of software update, yy is the last two digits of the year issued, and nnnn is the sequence number identifying the software update.

4. SYSTEM RESPONSE

NG = No good. The message was not accepted since the software update was not found.

PF = Good. The message was accepted and the action completed.

RL = Retry later. Another UPD input message is active.

5. REFERENCES

IM / OM Reference(s):
None.

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ID UPD:VERSION
GENERIC UNIX RTR R21.1, R21.15
and later
TYPE Input

1. PURPOSE

Requests update of the text version and/or software update level of the file system partitions. This information can be used to identify the partitions' text version and software update level should they become detached from the equipment configuration data base (ECD). Normally, this message is only entered by the software update updating procedure.

Format 1 is used to apply (advance) the version.

Format 2 is used to backout a version.

2. FORMAT

[1] **UPD:VERSION,APPLY "a"[,UCL]!**

[2] **UPD:VERSION,BKOUT "b"[,UCL]!**

3. EXPLANATION OF MESSAGE

UCL = Unconditional. This option is provided so the message is accepted if the software update procedure is executed with the UCL append option. It has no effect.

a = A quoted string indicating the new text version and software update level, with the format "ccc(d)ee.ff ggghh-iiii" where:

ccc = The software release (such as '5e2').
d = The issue (such as '1').
ee = The release (such as '03').
ff = The point (such as '04').
ggg = The type (e.g., 'BWM', 'CFT' or 'TMP').
hh = The year (such as '85').
iiii = The sequence number (such as '0123').

For example: "5e2(1)03.04 BWM85-0123"

To be consistent with system documentation, the release, point and year are padded with a leading zero, if need be, to obtain two digits. Likewise, the sequence number is padded with leading zeros to obtain four digits.

b = A quoted string indicating the previous text version and software update level. See version string format defined in variable *a*.

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4. SYSTEM RESPONSE

NG = No good. Valid values are:

 x = software release, issue, release point, type, year or sequence
 number. This item was not present in the version string. Correct
 and re-enter message.

OK = Good. Command accepted, no output message will follow.

PF = Printout follows. Command accepted, and a UPD:VERSION output message
 will follow.

5. REFERENCES

Input Message(s):
OP:VERSION

Output Message(s):
OP:VERSION
UPD:VERSION

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ID UPD:VFY-A
GENERIC UNIX RTR R1.5, R6.4 and
R21.3
TYPE Input

1. PURPOSE

Verifies broadcast warning messages (BWMs), which are updates in the field update directory. An update may be verified any number of times. Update filenames may also be displayed from this message.

2. FORMAT

UPD:VFY: {BWM "a" | ALL} [, BSDIR "b"] [, LIST] [, VLEV c] !

3. EXPLANATION OF MESSAGE

- a* = A single BWM name or a list of up to ten BWM names, specified as BWMyy-nnnn, DMTyy-nnnn, or CFTyy-nnnn where BWM, DMT, and CFT identify the category of BWM, yy is the last two digits of the year, and nnnn is the sequence number identifying the BWM. See the User Guidelines, in Section 2 of this manual, for instructions on entering a list of names.
- ALL** = Verify all BWMs in the base directory that match the BWM format *a*.
- b* = Base directory name. See the User Guidelines for definitions of directory, pathname, and file. The default is /etc/bwm.
- LIST** = List all filenames received for the specified BWM(s).
- c* = Requests additional output from a field update process. Verbose flags may be set for UPD and bwmvfy. The flags must be entered in the order in which the processes are listed. To turn on the verbose output for bwmvfy, UPD's flag must be set to zero.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a UPD-VFY output message.

5. REFERENCES

Output Messages
UPD-APPLY
UPD-BKOUT
UPD-BLDBOOT
UPD-CLR
UPD-DISPLAY
UPD-FTRC
UPD-OMIT
UPD-PERM
UPD-PURGE
UPD-RECLAIM

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UPD-REPT
UPD-RESET
UPD-UPNM
UPD-VFY

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ID UPD:VFY-B
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests that software updates which are in the field update directory be verified. An update may be verified any number of times. Update filenames may also be displayed from this message.

2. FORMAT

UPD:VFY:{BWM "a"[, "a"[, "a"...]]|ALL}[, BSDIR "b"][, LIST]!

3. EXPLANATION OF MESSAGE

ALL = Verify all software updates in the base directory that match the software update format in variable *a*.

LIST = List all filenames received for the specified SU(s).

a = Software update name. A list of 1 to 10 SU names may be given, specified as BWMyy-*nnnn*, TMPyy-*nnnn* (temporary), or CFTyy-*nnnn* (craft) where BWM, TMP, and CFT identify the category of software update, yy is the last two digits of the year, and *nnnn* is the sequence number identifying the software update. See System Maintenance Manual for instructions on entering a list of names (" " is required).

b = Base directory name. The default is /etc/bwm.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by one or more UPD:COMMAND or UPD:REPT output messages.

5. REFERENCES

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:VFYBWM
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests verification of the content of a software update, the name of which has been entered using UPD:UPNAME command (displayed on MCC 1960 page).

2. FORMAT

UPD:VFYBWM!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

NG = No good. The message was not accepted because:
 - Software update name has not been entered using UPD:UPNAME command.
 - Software update was not found.

PF Printout follows. The message was accepted and printout will follow.

5. REFERENCES

Input Message(s):
UPD:UPNAME
UPD:VFY

Output Message(s):
UPD:COMMAND
UPD:REPT

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ID UPD:VFYCON
GENERIC UNIX RTR R21.11, R21.15
and later
TYPE Input

1. PURPOSE

Requests verification of software update consistency and a summary of all software update inconsistencies that exist in the system.

2. FORMAT

UPD:VFYCON!

3. EXPLANATION OF MESSAGE

No variables.

4. SYSTEM RESPONSE

PF = Printout follows. The request has been accepted. Followed by a UPD:VFYCON output message.

5. REFERENCES

Input Message(s):
UPD:RECOVERY

Output Message(s):
UPD:COMMAND
UPD:REPT
UPD:VFYCON

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

SEE PROPRIETARY NOTICE ON COVER PAGE

ID VFY:FILE-A
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Verifies the contents of files that are essential to the booting of the computer using a cyclic redundancy check (CRC) algorithm.

Format 1 is used to verify /dev/boot, /dev/lboot, /dev/vtoc, /appdmert, and /dmert only.

Format 2 is used to verify a single file or a list of files.

Format 3 is used to verify all essential files within a database partition.

2. FORMAT

This message has three formats.

- [1] **VFY:FILE!**
- [2] **VFY:FILE:{FN "a"|FLIST "b"}[,MP "c"[,OLMP "d"]
[,DN e,OFLPN f]][,GEN|,PRINT]!**
- [3] **VFY:FILE:PKNAME ["g"],PKNUM[h],DBPN[i][,MP "c"
[,OLMP "d"][,DN e,OFLPN f]][,PRINT]!**

3. EXPLANATION OF MESSAGE

- a* = A string containing the full path to the essential file followed by white space and the letter *i* or *g* to indicate that the CRC information is stored internally or globally. For example, "/bootfiles/fmprc i". The VFY:FILE message may be used to verify tape-only program (TOP) tapes that have self-contained CRC information by using the tape device as the file name; for example, "/dev/mt08 i". The CRC location can be found by using recent change and verify (RC/V) to examine the `crc_code` field in a file's `fsb` record.
- b* = The full pathname of a specification file containing entries in the format of the above argument.
- c* = The full pathname of the directory where the database partition is mounted or where the off-line partition is to be mounted; default = "/".
- d* = The corresponding on-line mount point (OLMP) of the file system containing the files being verified. For a non-root file system, if the file names stored in `/.crcvalues` were stored relative to "/" (for example, no MP option was used when the CRC was generated and stored), then the OLMP option must be used when verifying the contents of a copy of this.

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- e* = The number of the off-line disk which contains the files to be verified. Legal values are 0 to 31. The default is to use the on-line disks.
- f* = The number of the off-line disk partition to be verified. Legal values are 0 to 63. The default is to use on-line disk partitions.
- g* = A two-character string indicating the pack name of the SG database partition to be verified. This value is the same as the `pack_name` field in the `fs` record for the database partition. Default = "rt".
- h* = The pack number which corresponds to the `pack_number` field in the `fs` record for the database partition being verified. Legal values are 0 to 32767; default = 0.
- i* = The SG database partition number of the SG database partition corresponding to the `par_number` in the partition's `fs` record. Legal values are 0 to 63; default = 5.

When the `VFY:FILE` command is entered with no optional keywords, it defaults to verifying `/dev/boot`, `/dev/lboot`, `/dev/vtoc`, `/appdmert`, and `/dmert`. Thus, to use the database partition defaults, the user must supply at least one of the SG database options.

The **GEN** keyword will cause `VFY:FILE` to generate and store CRC information for the file or list of files provided. This makes the assumption that the contents of each the files is correct before `VFY:FILE` is run and should be used only with extreme caution.

The **PRINT** option causes `VFY:FILE` to print the CRC information which it calculates for each essential file specified. No actual verification of the CRC information takes place.

The **PRINT** and **GEN** options may not be used together.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a `VFY-FILE` output message.

5. REFERENCES

Output Message
`VFY-FILE`

Practice 254-341-230 *Craft Interface Software Subsystem Description Lucent Technologies 3B20D Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID VFY:FILE-B
GENERIC UNIX RTR R6.4 only
TYPE Input

1. PURPOSE

Verifies the contents of files that are essential to the booting of the computer.

Format 1 is used to verify /dev/boot, /dev/lboot, /dev/vtoc, /appdmert, and /dmert only.

Format 2 is used to verify a single file or a list of files.

Format 3 is used to verify all essential files within a database partition.

2. FORMAT

- [1] **VFY:FILE!**
- [2] **VFY:FILE:{FN "a b"|FLIST "c"}[,MP "d"[,OLMP "e"]
[,DN f,OFLPN g]][,GEN|,PRINT]!**
- [3] **VFY:FILE:PKNAME ["h"],PKNUM[i],DBPN[j][,MP "d"
[,OLMP "e"][,DN f,OFLPN g]][,PRINT]!**

3. EXPLANATION OF MESSAGE

- a* = The full pathname of the essential file to be verified.
- b* = A one- to three-character string that indicates the type of checking to be performed. The string should be of the format "*g|i|n|X|[-|1|2|B|C|I|R|D|P]*" to indicate checking on CRC information, executable by owner, and file type. The letter *g* or *i* indicates checking on CRC stored globally or internally, and the letter *n* is used to inhibit CRC checking. The letter *X* indicates checking for execution permission by owner, while the remaining characters are used for checking the file type.
The following characters indicate the file type to check:

- = Regular
1 = Contiguous
2 = Extent
B = Block
C = Character
I = IOP
R = Record
D = Directory
P = Pipe

The checks for executable by owner and file type are optional as long as CRC checking is specified. If CRC checking is inhibited, then at least one of the optional checks must be specified.

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- c* = The full pathname of a specification file containing entries in the format argument "*a b*".
- d* = The full pathname of the directory where the database partition is mounted or where the off-line partition is to be mounted; default = *"/*".
- e* = The corresponding on-line mount point (OLMP) of the file system containing the files being verified. For a non-root file system, if the file names stored in */.crcvalues* were stored relative to *"/*" (for example, no *MP* option was used when the *crc* was generated and stored), then the OLMP option must be used when verifying the contents of a copy of this.
- f* = The number of the off-line disk which contains the files to be verified. Legal values are 0 to 31. The default is to use the on-line disks.
- g* = The number of the off-line disk partition to be verified. Legal values are 0 to 63. The default is to use on-line disk partitions.
- h* = A two-character string indicating the pack name of the SG database partition to be verified. This value is the same as the *pack_name* field in the *fs* record for the database partition. Default = *"rt"*.
- i* = The pack number which corresponds to the *pack_number* field in the *fs* record for the database partition being verified. Legal values are 0 to 32767; default = 0.
- j* = The SG database partition number of the SG database partition corresponding to the *par_number* in the partition's *fs* record. Legal values are 0 to 63; default = 5.

When the *VFY:FILE* command is entered with no optional keywords, it defaults to verifying */dev/boot*, */dev/lboot*, */dev/vtoc*, */appdmert*, and */dmert*. Thus, to use the database partition defaults, the user must supply at least one of the SG database options.

The **GEN** keyword will cause *VFY:FILE* to generate and store CRC information for the file or list of files provided. This makes the assumption that the contents of each the files is correct before *VFY:FILE* is run and should be used only with extreme caution.

The **PRINT** option causes *VFY:FILE* to print the CRC information which it calculates for each essential file specified. No actual verification of the CRC information takes place.

The **PRINT** and **GEN** options may not be used together.

NOTE: The option to inhibit CRC checking should not be used unless checking CRC information for the specified file is not appropriate. Do not view this option as a fast way to verify essential files.

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4. SYSTEM RESPONSE

PF = Printout follows. Followed by a VFY-FILE output message.

5. REFERENCES

Input Message
VFY:FILE

Output Message
VFY-FILE

Practice 254-341-230 *Craft Interface Software Subsystem Description Lucent Technologies 3B20D Computer*

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ID VFY:FILE-C
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Verifies the contents of files that are essential to the booting of the administrative module (AM).

Format 1 is used to verify /dev/boot, /dev/lboot, /dev/vtoc, /appdmert, and /dmert only.

Format 2 is used to verify a single file or a list of files.

Format 3 is used to verify all essential files within a database partition.

2. FORMAT

- [1] **VFY:FILE!**
- [2] **VFY:FILE:{FN "a b" | FLIST "c"[, DELTA]} [,MP "d" [,OLMP "e"]
[,DN f,OFLPN g]][,GEN | ,PRINT!**
- [3] **VFY:FILE:PKNAME ["h"],PKNUM[i],DBPN[j][,MP "d"
[,OLMP "e"][,DN f,OFLPN g]][,PRINT]!**

3. EXPLANATION OF MESSAGE

- a* = The full pathname of the essential file to be verified.
- b* = A one- to three-character string that indicates the type of checking to be performed. The string should be of the format "*g|i|n* [*X*] [*-|1|2|B|C|I|R|D|P*]" to indicate checking on CRC information, executable by owner, and file type. The letter *g* or *i* indicates checking on CRC stored globally or internally, and the letter *n* is used to inhibit CRC checking. The letter *X* indicates checking for execution permission by owner, while the remaining characters are used for checking the file type.
The following characters indicate the file type to check:

- = Regular
1 = Contiguous
2 = Extent
B = Block
C = Character
I = IOP
R = Record
D = Directory
P = Pipe

The checks for executable by owner and file type are optional as long

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as CRC checking is specified. If CRC checking is inhibited, then at least one of the optional checks must be specified.

- c* = The full pathname of a specification file containing entries in the format argument "*a b*".
- d* = The full pathname of the directory where the database partition is mounted or where the off-line partition is to be mounted; default = *"/*".
- e* = The corresponding on-line mount point (OLMP) of the file system containing the files being verified. For a non-root file system, if the file names stored in */.crcvalues* were stored relative to *"/*" (for example, no MP option was used when the CRC was generated and stored), then the OLMP option must be used when verifying the contents of a copy of this file which resides on an off-line partition.
- f* = The number of the off-line disk which contains the files to be verified. Legal values are 0 to 31. The default is to use the on-line disks.
- g* = The number of the off-line disk partition to be verified. Legal values are 0 to 63. The default is to use on-line disk partitions.
- h* = A two-character string indicating the pack name of the SG database partition to be verified. This value is the same as the *pack_name* field in the *fs* record for the database partition. Default = *"rt"*.
- i* = The pack number which corresponds to the *pack_number* field in the *fs* record for the database partition being verified. Legal values are 0 to 32767; default = 0.
- j* = The SG database partition number of the SG database partition corresponding to the *par_number* in the partition's *fs* record. Legal values are 0 to 63; default = 5.

When the VFY:FILE command is entered with no optional keywords, it defaults to verifying */dev/boot*, */dev/lboot*, */dev/vtoc*, */appdmert*, and */dmert*. Thus, to use the database partition defaults, the user must supply at least one of the SG database options.

The **DELTA** keyword provides the following service. If VFY:FILE is using the FLIST keyword and finds a file name in the specification file with the checking option *g*, but that file is not found in the global *crcvalue* file, then VFY:FILE will generate an entry for that file in the global *crcvalue* file.

The **GEN** keyword will cause VFY:FILE to generate and store CRC information for the file or list of files provided.

GEN and **DELTA** make the assumption that the contents of each the files is correct before VFY:FILE is run and should be used only with extreme caution.

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The **PRINT** option causes VFY:FILE to print the CRC information which it calculates for each essential file specified. No actual verification of the CRC information takes place.

The **PRINT** and **GEN** options may not be used together.

NOTE: The option to inhibit CRC checking should not be used unless checking CRC information for the specified file is not appropriate. Do not view this option as a fast way to verify essential files.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a VFY-FILE output message.

5. REFERENCES

Input Message
VFY:FILE

Output Message
VFY-FILE

Practice 254-341-230 *Craft Interface Software Subsystem Description Lucent Technologies 3B20D Computer*

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ID VFY:MHD-A
GENERIC UNIX RTR R1.5 only
TYPE Input

1. PURPOSE

Reads all or specific disk tracks and verifies the header and error-correction code of each sector of the tracks read. The header contains the cylinder, track, and sector identification numbers, and should match the disk file controller (DFC) internal head position data. The error-correction code is read to verify the correctability of the data in each sector. This input message may specify an in-service moving head disk (MHD); disk data will not be affected.

NOTE: It may take several minutes to verify a complete disk. This request may fail to complete if it is input while another DFC- or MHD-related request is active. If this happens, repeat the request after the other command completes.

2. FORMAT

VFY:MHD *a* [, **TRACK** *b*[-*c*]]!

3. EXPLANATION OF MESSAGE

- a* = Member number (0-255).
- b* = Number of the track to be verified (decimal), or the lower limit of a range of track numbers (0-17064).
- c* = The upper limit of a range of tracks (0-17064).

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a VFY-MHD output message.

5. REFERENCES

Input Message
INIT:MHD

Output Message
VFY-MHD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID VFY:MHD-B
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Reads all or specific disk tracks or blocks and verifies the header and error-correction code of each sector of the tracks or blocks read. The error-correction code is read to verify the correctability of the data in each sector.

For storage module device (SMD) disk drives, the header contains the cylinder, track, and sector identification numbers, and should match the SMD disk file controller (DFC) internal head position data.

For small computer system interface (SCSI) disk drives, the error-correction code is read to verify the correctability of the data in each disk block.

The moving head disk (MHD) does not have to be in the active state for this command to work.

NOTE: It may take several minutes to verify a complete disk.

For SMD DFC, this request may fail to complete if it is input while another MHD-related request is active on the same DFC. If this happens, repeat the request after the other command completes.

For SCSI DFC, a maximum of two verify requests are possible for different MHDs on the same DFC.

2. FORMAT

This message has two formats.

[1] **VFY:MHD** *a* [, **TRACK** *b*[-*c*]]!

[2] **VFY:MHD** *a* [, **BLOCK** *b*[-*c*]]!

3. EXPLANATION OF MESSAGE

a = MHD member number (0-255).

b = There are two different formats depending on the type of MHD (SMD or SCSI):

— Track(s) of the SMD MHD to be verified, in decimal notation.
May be the first track of a range (0-17064).

— Block(s) of the SCSI MHD to be verified, in decimal notation.
May be the first block of a range (0-2147483646).

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c = The last track or block of a range (0-17064 or 0-2147483646).

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a VFY-MHD output message.

5. REFERENCES

Input Message
INIT:MHD

Output Message
VFY-MHD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID VFY:PAUTH-A
GENERIC UNIX RTR R1.5 and R6.4
TYPE Input

1. PURPOSE

Verifies a person and the person's last login date and time. If the optional identity (IDENT) parameter is not specified, the entire database is printed showing all user identities and last login times.

2. FORMAT

VFY:PAUTH[:IDENT "a"]!

3. EXPLANATION OF MESSAGE

a = Identity of the person or group that uses the password prefix and suffix, in one to eight letters and/or digits.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a VFY-PAUTH output message.

NG = No good. Includes one of the following:

- NON-EXISTENT PERSON IDENTITY
The given personal identity does not exist in the personal authority administration.
- UNABLE TO ACCESS AUTHORITY ADMINISTRATION
Personal authority information is inaccessible.
- PASSWORD ENHANCEMENT NOT ACTIVATED
This keyword "STATUS" is valid only for applications running with the password enhancement feature.

5. REFERENCES

Input Messages
ADD:PAUTH
CHG:PAUTH
DEL:PAUTH
RNM:PSSWD

Output Message
VFY-PAUTH

SEE PROPRIETARY NOTICE ON COVER PAGE

ID VFY:PAUTH-B
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Format 1 allows verification of the status of a person or group with the associated date and time of the last login.

Format 2 verifies users who have not logged in within a specified amount of time. This enables the system administrator to identify unused or dormant identities (IDs) and improve the administration of security.

2. FORMAT

[1] **VFY:PAUTH[:IDENT "a"],[STATUS b]!**

[2] **VFY:PAUTH:DORMANT c!**

3. EXPLANATION OF MESSAGE

- a* = Identity or user ID of the person or group to whom the associated date, time, and status applies.
- b* = Status of the user ID, either **ENABLE** or **DISABLE**.
- c* = Specifies the number of days that can pass before a user ID is considered dormant. User identities that surpass this number of days are printed out. User identities that surpass logged in are also printed out. Users who have never logged in are also printed.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a VFY-PAUTH output message.
- NG = No good. Includes one of the following:
 - **NON-EXISTENT PERSON IDENTITY**
The given person identity does not exist in the person authority administration.
 - **UNABLE TO ACCESS AUTHORITY ADMINISTRATION**
Person authority information is inaccessible.
 - **NO DORMANT USERS PRESENT**
There are no dormant users falling within the specified number of days, as given in option c.

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5. REFERENCES

Input Messages

ADD:PAUTH

CHG:PAUTH

DEL:PAUTH

RNM:PSSWD

Output Message

VFY-PAUTH

SEE PROPRIETARY NOTICE ON COVER PAGE

ID VFY:PCGRP
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Verifies a user's command groups in the person command group (PCGRP) database.

2. FORMAT

VFY:PCGRP:IDENT "a"!

3. EXPLANATION OF MESSAGE

a = Identity of the person or group in one to eight letters and/or digits.

4. SYSTEM RESPONSE

- PF = Printout follows. Followed by a VFY-PCGRP output message.
- NG = No good. Includes one of the following:
- NON-EXISTENT PERSON IDENTITY
The given person identity does not exist in the personal authority administration.
 - NO AUTHORITY GROUPS ASSIGNED TO THIS PERSON
No authority groups have been assigned to this personal identity; see the ADD:PCGRP input message.
 - UNABLE TO ACCESS AUTHORITY ADMINISTRATION
Personal authority information is inaccessible.

5. REFERENCES

Input Messages

ADD:PAUTH
ADD:PCGRP
ADD:PROFL
CHG:PAUTH
CHG:PROFL
DEL:PAUTH
DEL:PCGRP
DEL:PROFL
RNM:PSSWD
VFY:PAUTH
VFY:PROFL

Output Messages

VFY-PAUTH
VFY-PCGRP

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ID VFY:PROFL
GENERIC UNIX RTR R21.3, R21.11,
R21.15 and later
TYPE Input

1. PURPOSE

Verifies all profile names or the command groups associated with a given profile (IDENT).
If the optional **IDENT** parameter is not specified, only the profile name list is printed.

2. FORMAT

VFY:PROFL[, IDENT "a"]!

3. EXPLANATION OF MESSAGE

a = Identity of the profile in one to eight letters and /or digits.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the VFY-PROFL output message.

NG = No good. Includes one of the following:

NON-EXISTENT PROFILE IDENTITY

The given profile identity does not exist in the profile administration.

— UNABLE TO ACCESS PROFILE ADMINISTRATION

Profile information is inaccessible.

— NO AUTHORITY GROUPS ASSIGNED TO THIS PROFILE

No command group is assigned to this profile.

— PASSWORD ENHANCEMENT NOT ACTIVATED

This command is valid only for applications running with the password enhancement feature enabled.

5. REFERENCES

Input Messages

ADD:PROFL

CHG:PROFL

DEL:PROFL

Output Message

VFY-PROFL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID VFY:TAPE-A
GENERIC UNIX RTR R1.5, R6.4,
R21.3 and R21.11
TYPE Input

1. PURPOSE

Verifies the readability of information on computer system tapes and the consistency of corresponding hash sums.

System tapes are formatted as a series of headers, each followed by a number of data blocks. A header contains information concerning the number of data blocks (or records) which follow it and the size of the blocks. The last header on the tape has no associated data records and is called the trailer header. Each header also contains a hash sum for the header itself and a single hash sum for the total of all its corresponding records. Tape verification will check the header and data hash sums and verify all information is readable.

The tape to be verified must already be loaded.

2. FORMAT

VFY:TAPE,TD "a"[/RETRY b][,VERBOSE]!

3. EXPLANATION OF MESSAGE

- a* = Special device file name of the tape drive where system tape to be verified is loaded. See the User Guidelines in this manual for descriptions and examples of tape device names.
- b* = Number of times to retry on tape read errors (default zero). If a read attempt is unsuccessful, the tape will backspace and try again until either the attempt is successful or the retry count is exceeded.

If the **VERBOSE** option is specified, a line of output is produced for each header hash sum successfully read and for each header or data record that was successfully read and required retries.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a VFY-TAPE output message.

5. REFERENCES

Output Message
VFY-TAPE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID VFY:TAPE-B
GENERIC UNIX RTR R21.15 and
later
TYPE Input

1. PURPOSE

Verifies the readability of information on computer system tapes and the consistency of corresponding hash sums.

System tapes are formatted as a series of headers, each followed by a number of data blocks (or records). A header contains information concerning the number of data blocks that follow it and the size of the blocks. The last header on the tape has no associated data records and is called the trailer header. Each header also contains a hash sum for the header itself and a hash sum for the total of all its corresponding records. Tape verification will check the header and data hash sums and verify all information is readable.

On a digital audio tape (DAT), a single session or a single volume can be verified. A DAT may be formatted as a multi-volume tape; that is, it may contain headers and data blocks for more than one logical volume. One of these logical volumes or several logical volumes grouped together form a session, and several sessions may be found on a DAT.

2. FORMAT

VFY:TAPE,TD "a"[/RETRY b][,SESS c[,VOL d]][,VERBOSE]!

3. EXPLANATION OF MESSAGE

- a* = Special device file name of the tape drive where system tape to be verified is loaded. See the User Guidelines in this manual for descriptions and examples of tape device names.
- b* = Number of times to retry after tape read errors (default is two). If a read attempt is unsuccessful, the tape will backspace and try to read again until either the attempt is successful or the retry count is exceeded. The range of retry values is 0-9.
- c* = Number of the session that is to be verified. This option is only valid for a multi-volume DAT. The range of session numbers is 1-9.
- d* = Number of the volume that is to be verified. This option is only valid for a multi-volume DAT. The range of volume numbers is 0-9.

If the **VERBOSE** option is specified, a line of output is produced for each header hash sum successfully read, and for each header or data record that was successfully read but required retries.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by a VFY-TAPE output message.

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5. REFERENCES

Output Message
VFY-TAPE

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ID VFY:TAUTH
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Verifies all terminal identities in the terminal authority (TAUTH) database.

2. FORMAT

VFY:TAUTH!

3. EXPLANATION OF MESSAGE

None.

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the VFY-TAUTH output message.

NG = No good. Includes one of the following:

- NO TERMINAL AUTHORITY PRESENT
No terminal authority has been entered on this machine; see the
ADD:TAUTH input message.
- UNABLE TO ACCESS AUTHORITY ADMINISTRATION
Terminal authority information is inaccessible.

5. REFERENCES

Input Messages
ADD:TAUTH
DEL:TAUTH

Output Message
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 Input

1. PURPOSE

Verifies command groups assigned to a terminal identity (TERM) in the terminal command group (TCGRP) database.

2. FORMAT

VFY:TCGRP:TERM "a"!

3. EXPLANATION OF MESSAGE

a = Terminal identity in four characters, starting with "tty".

4. SYSTEM RESPONSE

PF = Printout follows. Followed by the VFY-TCGRP output message.

NG = No good. Includes one of the following:

- NON-EXISTENT TERMINAL IDENTITY
The given terminal identity does not exist in the terminal authority administration.
- INVALID TERMINAL IDENTITY
The given terminal identity is either not four characters in length or does not start with "tty".
- NO AUTHORITY GROUPS ASSIGNED TO THIS TERMINAL
No authority groups have been assigned to this terminal identity;
- UNABLE TO ACCESS AUTHORITY ADMINISTRATION
Terminal authority information is inaccessible.

5. REFERENCES

Input Messages
ADD:TAUTH
ADD:TCGRP
DEL:TAUTH
DEL:TCGRP
VFY:TAUTH

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Output Messages
VFY-TAUTH
VFY-TCGRP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID WHEN:COND
GENERIC UNIX RTR R6.4, R21.3,
R21.11, R21.15 and later
TYPE Input

1. PURPOSE

Starts a list of computer generic access package (GRASP) commands that are to be performed when an external event breakpoint condition exists. The list of commands is called an action list.

2. FORMAT

WHEN:COND E!

3. EXPLANATION OF MESSAGE

An external event condition exists when the external event backplane signal becomes active.

E = Action list performed when an external event occurs.

Commands following a WHEN:COND command are restricted to the following list. A maximum of five commands is allowed in the action lists.

ALW: {UTIL|UTILFLAG|UMEM}

INH: {UTIL|UTILFLAG|UMEM}

DUMP: {ADDR|PMEM|REG|UVAR}

COPY: all forms of the command, except PID or PID source.

LOAD: all forms of the command.

NOTE: See the message descriptions for the details of how the commands are used within the WHEN command.

The action list is terminated with the END:WHEN input message.

4. SYSTEM RESPONSE

IP = In progress. Breakpoint condition is understood. The associated action list is expected to follow.

NG = No good. Includes one of the following:

- **T00 MANY BREAKPOINTS**
Only 20 breakpoints are permitted at one time.
- **UCERR**
The utility circuit is unavailable.

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- RL = Retry later. The system is in an overload condition, or wait for previous OP:UMEM or OP:UMEM;MCH to complete.
- ?A = Invalid keyword. The command is not allowed in a WHEN action list.
- END:WHEN expected after the fifth action.
- ?I = Retry later. The system is in an overload condition.

5. REFERENCES

Input Messages

ALW:UMEM
ALW:UTIL
ALW:UTILFLAG
CLR:UTIL
CLR:UTILFLAG
COPY:ACTDISK
COPY:ADDR
COPY:BKDISK
COPY:DIFF;MHD
COPY:OOSDISK
COPY:P;ALL
COPY:PID
COPY:REG
COPY:SPDISK
COPY:T;EMERDMP
COPY:T;IN
COPY:T;OUT
COPY:T;TEST
COPY:UID
COPY:UVAR
DUMP:ADDR
DUMP:PMEM
DUMP:REG
DUMP:UVAR
END:WHEN
INH:UMEM
INH:UTIL
INH:UTILFLAG
INIT:UMEM
LOAD:ADDR
LOAD:DFC;PUMP
LOAD:DFC;RAM
LOAD:MHD
LOAD:PMEM
LOAD:REG
LOAD:UVAR
OP:UMEM
OP:UMEM;MCH
OP:UTIL

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WHEN:UID

Output Messages
OP-UTIL
REPT-GRASP
WHEN-COND

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ID WHEN:PID
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Starts a list of computer generic access package (GRASP) messages that are to be performed when a specified breakpoint condition exists. The list of messages is called an action list. Two types of breakpoint conditions are recognized: instruction-execution conditions and data-access conditions.

Format 1 is used when instruction-execution breakpoints are required.

Format 2 is used when data-access breakpoints are required.

2. FORMAT

[1] WHEN:PID *a*, ADDR *b*, OPC *e*;EXC[,WORD]/

[2] WHEN:PID *a*, ADDR {*b*[-*c*][, L *d*]};{R|W|RW}[,WORD]/

3. EXPLANATION OF MESSAGE

Instruction execution is detected by specifying a virtual address within a process. When the instruction at that address is executed, the action list is executed. The first byte of the instruction opcode expected to be found at that address must be specified in the message. The breakpoint definition is rejected if this opcode does not agree with the opcode found at the virtual address.

Data access is indicated by specifying both the virtual address within the process and the type of access to be detected: read, write, or read and write.

A data-access breakpoint will fire if the location specified is addressed with the correct access type. A data-access breakpoint over a range of data locations will fire if any location in the range is addressed with the correct access type.

Messages following the WHEN message are restricted to the following list. A maximum of five messages are allowed in action lists.

ALW: {UTIL|UTILFLAG|UMEM}

COPY: All forms of the message except process ID (PID) or utility ID (UID) source.

DUMP: {ADDR|PMEM|REG|UVAR}

INH: {UTIL|UTILFLAG|UMEM}

LOAD: All forms of the message.

NOTE: See the message description for the details of how the messages are used

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within the **WHEN** message.

The action list is terminated with the **END:WHEN** input message.

- a* = Process ID (PID) of the target process.
- b* = Virtual byte address for the breakpoint, or the beginning address of a range of addresses, in decimal, octal, or hexadecimal notation.
- c* = End address for a range of addresses.
- d* = Length of a range of addresses in bytes.
- e* = One-byte opcode expected to be found at the breakpoint address. The value is checked for software implemented breakpoints only.
- EXC** = Execute the action list when the breakpoint address is executed.
- R** = Trigger the action list when a read operation occurs on any part of the full memory word containing the specified byte address(es).
- W** = Trigger the action list when a write operation occurs on any part of the full memory word containing the specified byte address(es).
- RW** = Trigger the action list when either the **R** or the **W** condition is met.
- WORD** = Interpret the address and length fields as words. If this option is omitted, they are assumed to be byte values.

4. SYSTEM RESPONSE

- ?A = Invalid keyword. The message is not allowed in a **WHEN** action list.

END:WHEN is expected after the fifth action.
- ?I = General syntax error or one of the following errors:
 - RANGE ERROR (PID)
Process ID is out of range.
 - RANGE ERROR (OPC)
One-byte opcode is expected.
 - INCONSISTENT DATA (ADDR)
Address range must be in ascending order.
- IP = In progress. Breakpoint condition is understood. The associated action list is expected to follow.
- NG = No good. Includes one of the following:
 - BAD PID
The process ID is for a process for which dumps are not permitted.
 - TOO MANY BREAKPOINTS
Only 20 breakpoints are permitted at one time.
 - UCERR
The utility circuit is unavailable.
- RL = Retry later. The system is in an overload condition, or wait for

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previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages

ALW:UMEM
ALW:UTIL
ALW:UTILFLAG
CLR:UTIL
CLR:UTILFLAG
COPY:ACTDISK
COPY:ADDR
COPY:BKDISK
COPY:DIFF;MHD
COPY:OOSDISK
COPY:P;ALL
COPY:PID
COPY:REG
COPY:SPDISK
COPY:T;EMERDMP
COPY:T;IN
COPY:T;OUT
COPY:T;TEST
COPY:UID
COPY:UVAR
DUMP:ADDR
DUMP:PMEM
DUMP:REG
DUMP:UVAR
END:WHEN
INH:UMEM
INH:UTIL
INH:UTILFLAG
INIT:UMEM
LOAD:ADDR
LOAD:DFC;PUMP
LOAD:DFC;RAM
LOAD:MHD
LOAD:PMEM
LOAD:REG
LOAD:UVAR
OP:STATUS;PROCESS
OP:UMEM
OP:UMEM;MCH
OP:UTIL
WHEN:UID

Output Messages

OP-UTIL
WHEN-PID

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REPT - GRASP

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

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ID WHEN:UID
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

1. PURPOSE

Starts a list of computer generic access package (GRASP) messages that are to be performed when a specified breakpoint condition exists. The list of messages is called an action list. Two types of breakpoint conditions are recognized: instruction-execution conditions and data-access conditions.

Format 1 is used when instruction-execution breakpoints are required.

Format 2 is used when data-access breakpoints are required.

2. FORMAT

[1] **WHEN:UID** *a*, **ADDR** *b*, **OPC** *e*; **EXC**[, **WORD**]!

[2] **WHEN:UID** *a*, **ADDR** {*b*[-*c*][, **L** *d*]}; {**R**|**W**|**RW**}[, **WORD**]!

3. EXPLANATION OF MESSAGE

Instruction execution is detected by specifying a virtual address within a process. When the instruction at that address is executed, the action list is executed. The first byte of the instruction opcode expected to be found at that address must be specified in the message. The breakpoint definition is rejected if this opcode does not agree with the opcode found at the virtual address.

Data access is indicated by specifying both the virtual address within a process and the type of access to be detected: read, write, or read and write.

A data-access breakpoint will fire if the location specified is addressed with the correct access type. A data-access breakpoint over a range of data locations will fire if any location in the range is addressed with the correct access type.

Messages following the WHEN message are restricted to the following list. A maximum of five messages is allowed in action lists.

ALW: {**UTIL**|**UTILFLAG**|**UMEM**}

COPY: All forms of the message, except PID or UID source.

DUMP: {**ADDR**|**PMEM**|**REG**|**UVAR**}

INH: {**UTIL**|**UTILFLAG**|**UMEM**}

LOAD: All forms of the message.

NOTE: See the message descriptions for the details of how the messages are used

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within the WHEN message.

The action list is terminated with the `END:WHEN` message.

- a* = Utility ID (UID) number of target process.
- b* = Virtual byte address for the breakpoint or first address in a range of addresses. Specified in decimal, octal, or hexadecimal notation.
- c* = End address for a range of addresses.
- d* = Length of a range of addresses in bytes.
- e* = One byte opcode expected to be found at the breakpoint address. The value is only checked for software implemented breakpoints.
- EXC** = Trigger the action list when the breakpoint address is executed.
- R** = Trigger the action list when a read operation occurs on any part of the full memory word containing the specified byte address(es).
- W** = Trigger the action list when a write operation occurs on any part of the full memory word containing the specified byte address(es).
- RW** = Trigger the action list when either the **R** or the **W** condition is met.
- WORD** = Interpret address and length fields as words. If this option is omitted, they are assumed to be byte values.

4. SYSTEM RESPONSE

- ?A = Invalid keyword. The message is not allowed in a WHEN action list.

 `END:WHEN` is expected after the fifth action.
- ?I = General syntax error or one of the following errors:
 - **INCONSISTENT DATA (ADDR)**
 Address range must be in ascending order.
 - **RANGE ERROR (OPC)**
 One byte opcode is expected.
 - **RANGE ERROR (UID)**
 Utility ID is out of range.
- IP = Breakpoint condition is understood. The associated action list is expected to follow.
- NG = No good. Includes one of the following:
 - **BAD UID**
 The UID is for a process for which dumps are not permitted.
 - **TOO MANY BREAKPOINTS**
 Only 20 breakpoints are permitted at one time.
 - **UCERR**
 The utility circuit is unavailable.
- RL = Retry later. The system is in an overload condition, or wait for

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previous OP:UMEM or OP:UMEM;MCH to complete.

5. REFERENCES

Input Messages

ALW:UMEM
ALW:UTIL
ALW:UTILFLAG
CLR:UTIL
CLR:UTILFLAG
COPY:ACTDISK
COPY:ADDR
COPY:BKDISK
COPY:DIFF;MHD
COPY:OOSDISK
COPY:P;ALL
COPY:PID
COPY:REG
COPY:SPDISK
COPY:T;EMERDMP
COPY:T;IN
COPY:T;OUT
COPY:T;TEST
COPY:UID
COPY:UVAR
DUMP:ADDR
DUMP:PMEM
DUMP:REG
DUMP:UVAR
END:WHEN
INH:UMEM
INH:UTIL
INH:UTILFLAG
INIT:UMEM
LOAD:ADDR
LOAD:DFC;PUMP
LOAD:DFC;RAM
LOAD:MHD
LOAD:PMEM
LOAD:REG
LOAD:UVAR
OP:UTIL
OP:UMEM
OP:UMEM;MCH
WHEN:PID

Output Messages

OP-UTIL
REPT-GRASP
WHEN-UID

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ID APP:AUD
 GENERIC UNIX RTR R1.5, R6.4,
 R21.3, R21.11, R21.15 and
 later
 TYPE Input

System Responses for Audit System Input Messages

Response	Message	Meaning
?D	EXTRA KEYWORD	Too many keywords in data field.
?D	INVALID CHARACTER	Member number given was not numeric.
?D	INVALID DATA, ERROR 101	Cannot specify a range of member numbers.
?D	INVALID DATA, ERROR 102	Only one member number allowed.
?D	INVALID DATA, ERROR 103	The record for the specified audit name and member number is not found in the equipment configuration database.
?D	INVALID DATA, ERROR 105	An instance can be associated with one and only one audit name and member number.
?D	INVALID DATA, ERROR 201	The data field must be empty.
?D	INVALID DATA, ERROR 202	Only one instance can be specified.
?D	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.
?D	INVALID DATA, ERROR 204	No additional data can be entered when ALL is used as an input to audit user input messages, such as ALW, INH, and OP, or when RUN is used with the OP:AUD input message.
?D	INVALID DATA, ERROR 501	Data string to AUD command too long.

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System Responses for Audit System Input Messages (*continued*)

Response	Message	Meaning
?D	INVALID DATA, ERROR 502	Data string for AUD command should not have an argument.
?D	INVALID KEYWORD, ERROR 101	The audit name is too long.
?D	INVALID KEYWORD, ERROR 102	No records for specified audit name were found in the equipment configuration database.
?D	INVALID KEYWORD, ERROR 201	The keyword is not INS.
?D	INVALID KEYWORD, ERROR 501	Keyword is not PARAM
?D	MISSING DATA, ERROR 101	No member number was given.
?D	MISSING DATA, ERROR 201	The INS keyword was entered, but no instance name was specified.
?D	MISSING DATA, ERROR 501	The PARAM keyword was entered, but no additional parameter string was specified.
?D	RANGE ERROR	Member number out of range.
?E	INPUT ERROR	The command could not determine what action was requested.
?I	INCONSISTENT KEYWORDS	Conflicting action items.
?I	INVALID DATA, ERROR 101	Cannot specify a range.
?I	INVALID DATA, ERROR 102	Only one member number allowed.

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System Responses for Audit System Input Messages (*continued*)

Response	Message	Meaning
?I	INVALID DATA, ERROR 103	The record for the specified audit name and member number is not found in the equipment configuration database.
?I	INVALID DATA, ERROR 201	The instance name is too long.
?I	INVALID DATA, ERROR 202	Only one instance can be specified.
?I	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.
?I	INVALID DATA, ERROR 301	First action option keyword must not have a keyword data field.
?I	INVALID DATA, ERROR 302	Second action option keyword must not have a keyword data field.
?I	INVALID DATA, ERROR 401	Keyword data cannot follow keyword AUD.
?I	EXTRA KEYWORD, ERROR 1	Too many action options.
?I	EXTRA KEYWORD, ERROR 2	The third identification field subfield must be empty.
?I	INVALID KEYWORD, ERROR 101	The audit name is too long.
?I	INVALID KEYWORD, ERROR 201	The keyword is not INS.
?I	INVALID KEYWORD, ERROR 202	The keyword is invalid.
?I	INVALID KEYWORD, ERROR 203	The keyword RUN is valid only with the OP:AUD input message.
?I	INVALID KEYWORD, ERROR 301	The first action option is not valid.
?I	INVALID KEYWORD, ERROR 401	The second action option is not valid.

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System Responses for Audit System Input Messages (*continued*)

Response	Message	Meaning
?I	INVALID KEYWORD, ERROR 501	ID keywords cannot follow AUD keyword.
?I	MISSING DATA, ERROR 101	No member number was given.
?I	MISSING DATA, ERROR 201	The INS keyword was entered, but no instance name was specified.
?I	MISSING KEYWORD, ERROR 1	No audit name was given.
?I	MISSING KEYWORD, ERROR 2	The INS keyword (and its data) is missing.
?I	RANGE ERROR	Member number out of range.
NG	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.
NG	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.
NG	ALREADY ALLOWED, ERROR 3	The instance of the audit is already allowed.
NG	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.
NG	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.

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System Responses for Audit System Input Messages (*continued*)

Response	Message	Meaning
NG	ALREADY INHIBITED, ERROR 3	The instance of the audit is already inhibited.
NG	NO CHANGE	No change.
NG	NOT MANUAL AUDIT	Not manual audit.
NG	NOT RUNNING	The audit specified to be stopped is not running.
RL	ALREADY RUNNING	The requested audit is already running.
RL	AUDIT BLOCKED	Audit blocked.
RL	AUDIT PROCESS NOT FULLY CREATED	Audit has not been dispatched yet; retry STOP:AUD later.
RL	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.
NOTE: If the following equipment configuration database error conditions continue, seek technical assistance.		
RL	ECD INTERFACE ERROR 1	Cannot attach the segments of the equipment configuration database to the command.
RL	ECD INTERFACE ERROR 2	Cannot connect to the equipment configuration database.
RL	ECD INTERFACE ERROR 3	Cannot read the equipment configuration database control record.
RL	ECD INTERFACE ERROR 4	Cannot open a sequence for all audits with the specified name.

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System Responses for Audit System Input Messages (*continued*)

Response	Message	Meaning
RL	ECD INTERFACE ERROR 5	Error occurred while obtaining an audit record sequentially.
RL	ECD INTERFACE ERROR 6	Error occurred while obtaining an audit record by key.
RL	ECD INTERFACE ERROR 7	Error occurred while obtaining an instance record.
RL	ECD INTERFACE ERROR 8	Cannot read system integrity monitor (SIM) control record.
RL	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.
RL	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 system integrity monitor control (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.
RL	RUNNING AUDIT, ERROR 6	The requested audit is already running.

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System Responses for Audit System Input Messages (*continued*)

Response	Message	Meaning
RL	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.
RL	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 system integrity monitor control (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.
RL	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.
RL	SIM INTERFACE ERROR 3	Audit system initialization is in progress.

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System Responses for Audit System Input Messages (*continued*)

Response	Message	Meaning
RL	SIM INTERFACE ERROR 4	Audit system initialization failed.
RL	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.
RL	SIM INTERFACE ERROR 10	SIM failed to start the audit.
RL	SIM INTERFACE ERROR 15	System integrity output formatter is dead.
RL	SIM INTERFACE ERROR 19	An invalid RID was passed to SIM by the command program.
RL	SIM INTERFACE ERROR 20	An invalid instance RID was passed to SIM by the command program.
RL	SIM INTERFACE ERROR 23	Cannot stop a non-segmented audit.

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ID APP:MEM-NUM-APPB
 GENERIC UNIX RTR R1.5, R6.4,
 R21.3, R21.11, R21.15 and
 later
 TYPE Input

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)

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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

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ID APP:MEM-NUM-APPC
 GENERIC UNIX RTR R1.5, R6.4,
 R21.3, R21.11, R21.15 and
 later
 TYPE Input

Table C Computer Hardware Unit Names and Member Numbers

Unit Name	Meaning	*Allowed Member Numbers
CU	Control unit	0 or 1
DCI	Dual serial channel/computer interconnect	0 - 255
DFC	Disk file controller	0 - 7
DUI	Direct user interface	0 - 255
DUIC	DUI controller	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.

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ID APP:MEM-NUM-APPD
GENERIC UNIX RTR R1.5, R6.4,
R21.3, R21.11, R21.15 and
later
TYPE Input

Table D Computer 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

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