Lucent Technologies
Bell Labs Innovations

Quick Reference Guide
363-206-286, Issue 2

DDM-2000 OC-3 Multiplexer System Commands

HELP

? (help)
provides help within a craft dialog on the CIT

SPECIAL CHARACTERS

At-sign (@) - erases an input line.
Backspace [^H Ctrl h (Ctrl h)] or underbar (_) - erases a character.
Question mark (?) - help
Semicolon (;) - ends a command.
Carriage return RETURN or ENTER - ends line of input
CANcel or DELete - aborts a command

CROSS-CONNECT

cnvt-crs:*Address1*,*Address2*; (**Caution***)
converts existing STS-1 cross-connections to 28 individual VT1.5 cross-connections with the same endpoints
Address1=first STS1 channel to be converted
Address2=second STS1 channel to be converted

dlt-crs-sts1:*Address1*,*Address2*:[**cct=***CrsType*];(**Caution***)
deletes STS-1 cross-connections
Address1, Address2=Addresses of two STS-1 channels or one STS-1 channel and one DS3/EC-1/OC-3/MXRVO /TMUX port or OC-1 line
cct=cross-connection type (twoway or dc)

dlt-crs-sts3c:*Address1*,*Address2*:[**cct=***CrsType*];(**Caution***)
deletes STS-3c cross-connections
Address1, Address2=Addresses of two STS-3c channels
cct=cross-connection type (twoway)

dlt-crs-vt1:*Address1*,*Address2*:[**cct=***CrsType*];(**Caution***)
deletes VT1.5 (DS1) cross-connections
Address1, Address2=addresses of two VT1.5 channels or one VT1.5 channel and one DS1 or "internal" DS1 (within TMUX circuit pack) port
cct=cross-connection type (twoway, dc, or locked)

ent-crs-sts1:*Address1*,*Address2*:[**cct=***CrsType*] [,**ring=***RingId*]; (**Caution***)
sets bidirectional STS-1 cross-connections between main and function units slots
Address1, Address2=Addresses of two STS-1 channels or one STS-1 channel and one DS3/EC-1 /OC-3/MXRVO/TMUX port or OC-1 line or same time slot for pass-through traffic
cct=cross-connection type (twoway, dc, or locked line)
ring=ring ID for dc cross-connections (m1 or m2)

ent-crs-sts3c:*Address1*,*Address2*:[**cct=***CrsType*]; (**Caution***)
sets bidirectional pass-through STS-3c cross-connections
Address1, Address2=Addresses of two STS-3c channels
cct=cross-connection type (twoway)

ent-crs-vt1:*Address1*,*Address2*:[**cct=***CrsType*] [,**ring=***RingID*]; (**Caution***)
sets bidirectional VT1.5 (DS1) cross-connections between main and function units slots
Address1, Address2=addresses of two VT1.5 channels or one VT1.5 channel and one DS1 or "internal" DS1 (within TMUX circuit pack) port
cct=cross-connection type (twoway, dc, or locked)
ring=ring ID for drop and continue and locked cross-connections (m1 or m2)

LOOPBACK

opr-lpbk-ec1:*Address*:[**lpbktype=***LoopbackType*]; (**Caution***)
executes loopback on low-speed STS1E interface towards fiber or DSX
Address=EC1 port(s) (a, b, c, all)
lpbktype=loopback type (terminal or facility)

opr-lpbk-t1:*Address*:[**lpbktype=***LoopbackType*]; (**Caution***)
loops back DS1 port toward fiber or DSX
Address=DS1 port(s)
lpbktype=loopback type (terminal or facility)

rls-lpbk-ec1:*Address*:[**lpbtype=***LoopbackType*];
releases loopback on STS1E interface
Address=EC1 port(s) (a, b, c, all)
lpbktype=loopback type (terminal or facility)

opr-lpbk-t3:*Address*:[**lpbktype=***LoopbackType*]; (**Caution***)
executes loopback on DS3 port toward fiber or DSX
Address=DS3 port(s)
lpbktype=loopback type (terminal or facility)

rls-lpbk-t3:*Address*:[**lpbktype=***LoopbackType*];
releases loopback on DS3 port
Address=DS3 port(s)
lpbktype=loopback type (terminal or facility)

rls-lpbk-t1:*Address*:[**lpbktype=***LoopbackType*];
releases loopback on DS1 port or an "internal" DS1 port in a TMUX circuit pack
Address=DS1 port(s)
lpbktype=loopback type (terminal or facility)

MISCELLANEOUS

apply:[**date=***date*][,**time=***time*][,**action=***action*];(R13)

apply:[**pgmtype=***ProgramType*][,**Address=***AID*][,**date=***date*] [,**time=***time*][,**action=***action*];(R15)
initiates the installation of a dormant copy of a software generic stored in the network elements flash memory
programtype=network element (nesw) or IMA LAN (lansw) software generic
Address=low speed slot(s) equipped with IMA LAN circuit pack

February 2000

date=date (YYMMDD)
time=time (HHMMSS)
action=enables the execution of command to be confirmed or canceled (install, cancel, NULL)

cpy-prog: *TID*;(R13)

cpy-prog: *TID*[,**pgmtype=***ProgramType*];(R15)
copies system controller program from local NE to remote NE
TID=target identifier (shelf name) into which the program will be loaded
ProgramType=network element (nesw) or IMA LAN (lansw) software generic

dlt-osacmap:vc=*VCType,***snpa=***SNPA*;
deletes DTE calling addresses of operations systems (OS)
vc=virtual circuit type X.25 attachment for OS (PVC or SVC)
snpa=X.25 subnetwork point of attachment for OS

ent-osacmap:vc=*VCType,***snpa=***SNPA,***acid=***ACID*;(R13)

ent-osacmap:[*Address*:][,**porttype=***porttype*][,**vc=***VCType*] [,**snpa=***SNPA*][,**acid=***ACID*];(R15)
creates entries in X.25 subnetwork application context map
address=CIT port or an Asynchronous X.25 port (cit-{1,2} or x25)
porttype=specifies whether CIT port is used for CIT or TL1 application or X.25 port is synch or asynch
vc=virtual circuit type X.25 attachment for OS (PVC or SVC)
snpa=X.25 subnetwork point of attachment address for OS
acid=application context ID assigned to a SNPA address

ent-tl1msgmap:acid=*ACID,***msgtype=***MessageType,* **action=***Action*;
maps TL1 message types to operations systems (OS)
acid=application context ID
msgtype=supported classes of TL1 messages
action=associates MessageType to OS (enabled or disabled)

dlt-ulsdcc-l4:[**L4ajsys=***AJSystemID*][,**L4tdctid=***TDCTID*];
deletes provisionable parameters of Layers 3 through 7 of the open systems interconnection (OSI) 7-layer protocol stack
L4ajsys=specifies the NSAP System Identifier field of the TARP adjacent NE to be deleted from the TARP Manual Adjacency list of the local NE (12-digit hex)
L4tdctid=TID of NE for which the row of data is to be deleted from the TARP data cache

ent-ulsdcc-l3:[**L3org=***OrganizationID*][,**L3res=***Reserved*] [,**L3rd=***RoutingDomain*][,**L3area=***Routing Area*] [,**L3lv2is=***Level2Router*];
provisions parameters of Layers 3 of the open systems interconnection (OSI) 7-layer protocol stack
L3org=company code field (6-digit hex)
L3res=reserved (currently not used) (4-digit hex)
L3rd=NSAP routing domain field (4-digit hex)
L3area=NSAP area field (4-digit hex)
L3lv2is=level 2 IS-IS routing (enable or disable)

ent-ulsdcc-l4:[**L4tlif=***LifeTime*][,**L4ajsys=***AJSystemID*] [,**L4ajorg=***AJOrganizationID*][,**L4ajres=***AJReserved*] [,**L4ajrd=***AJRoutingDomain*][,**L4ajarea=***AJRouting Area*] [,**L4t1tm=***TimerT1*][,**L4t2tm=***TimerT2*][,**L4t3tm=***TimerT3*] [,**L4t4tm=***TimerT4*][,**L4lftm=***LDBFlushTimer*] [,**L4etdc=***L4etdc*][,**L4tdcsys=***L4tdcSystem*] [,**L4tdctid=***L4tdctid*][,**L4tdcorg=***L4tdcOrganizationID*] [,**L4tdcres=***L4tdcReserved*][,**L4tdcrd=***L4tdcRoutingDomain*] [,**L4tdcarea=***L4tdcRoutingArea*];
provisions parameters of Layers 4 of the open systems interconnection (OSI) 7-layer protocol stack
L4tlif=TARP lifetime parameter (1-65535)
L4ajsys=NSAP system identifier field (12-digit hex)
L4ajorg=NSAP organization id field (6-digit hex)
L4ajres=NSAP reserved field (4-digit hex)
L4ajrd=NSAP routing domain field (4-digit hex)
L4ajarea=NSAP area field (4-digit hex)
L4t1tm=TARP timer 1 (1-3600 secs)
L4t2tm=TARP timer 2 (1-3600 secs)
L4t3tm=TARP timer 3 (1-3600 secs)
L4t4tm=TARP timer 4 (1-3600 secs)
L4lftm=TARP loop detection buffer flush timer (1-1440 secs)
L4etdc=TARP data cache (enable or disable)
L4tdcsys=NSAP system identifier field of NE manually entered into TARP data cache (12-hex digit)
L4tdctid=Target identifier (TID) of NE manually entered into TARP data cache (up to 20 alphanumeric characters)
L4tdcorg=NSAP organization id field of NE manually entered into TARP data cache
L4tdcres=NSAP reserved field of NE manually entered into TARP data cache (4-digit hex)
L4tdcrd=NSAP routing domain field of NE manually entered into TARP data cache (4-digit hex)
L4tdcarea=NSAP area field of NE manually entered into TARP data cache (4-digit hex)

init-pm:reg=*Register*;
initializes all current day and/or current qtr. hr. PM registers
reg=register being initialized (day, qh, or all)

init-sys:*Address*; (**Caution***)
initializes provisionable parameters to default values
Address=all slots or SYSCTL (all or sysctl)

ins-prog: *TID*;(R13)

ins-prog: *TID*[,**pgmtype=***ProgramType*];(R15)
install new program into SYSCTL
TID=target identifier (system name)
programtype=network element (nesw) or IMA LAN (lansw) software generic

logout;
terminates user CIT session

opr-aco;
silences audible office alarms

reset;
resets system software program

rlgn: *TID*;
establishes a remote login session via DCC
TID=target identifier (system name)

rstr-passwd:*login,passwd,user_type,clr;*
restores login, password, and user type information
login=login name
password=current encrypted and encoded password
user_type=assigned user access (privileged, general, maintenance, or reports-only)
clr=indicates whether login should be deleted (clear or noclear)
toggle or Ctrl **t** (**Ctrl t**)
toggles between local and remote sessions
upd; (**Caution***)
updates system database

RETRIEVE

rtrv-alm:[**alm=***AlarmLevel*];
displays report of active alarm and status conditions at the local network element
alm=alarm level reported (all, cr, mj, mn, pmn, or other)
rtrv-attr-alm;
displays current alarm parameters (almdel, clrdel, and pmn)
rtrv-attr-cont:[*Address*];
displays provisioned name of miscellaneous discrete environmental control points
Address=control point [cont-{1-4,all}]
rtrv-attr-env:[*Address*];
displays provisioned alarm, name, and alarm type of miscellaneous environmental alarm/status points
Address=environment input point [env-{1-21,all}]
rtrv-crs-sts1:[*Address*];
displays STS-1 cross-connections
Address=one or more STS-1 channel(s)
rtrv-crs-sts3c:[*Address*];
displays STS-3c cross-connections
Address=one or more STS-3c channel(s)
rtrv-crs-vt1:[*Address*];
retrieves VT1.5 (DS1) cross-connections
Address=VT1.5 channels or DS1 ports
rtrv-ec1:[*Address*];
displays information about each EC1 port
Address=one or more EC1 port(s) (a, b, c, all)
rtrv-eqpt:[*Address*];
displays circuit pack type and version information
Address=one or more slot(s)
rtrv-feat;
displays list of active feature options
rtrv-fecom:[*Address*];
displays provisioned state of NE's DCC channel(s) and IAO LAN interface
Address=one or more DCC channel(s) or IAO LAN interface
rtrv-hsty;
displays event history report
rtrv-lan:[*Address*];
displays data associated with the IMA LAN circuit pack
Address=IMA LAN port on the IMA LAN circuit pack
rtrv-lgn;
displays login authorization information
rtrv-link;
displays provisioned parameters for CIT link
rtrv-map-neighbor;
displays immediate DCC and/or IAO LAN neighbors reachable by the local NE
rtrv-map-network:[**Level2=***level2*];
displays all NEs in same Level 1 area reachable by the local NE through DCC or IAO LAN
level2=all reachable NEs provisioned as Level 2 ISs across multiple areas within a subnetwork (Y or N)
rtrv-ne;
displays information provisioned by **set-ne** command and set by switches on SYSCTL
rtrv-oc1:[*Address*];
displays provisioned OC-1 line configuration
Address=OC-1 line(s)
rtrv-oc3:[*Address*];
displays provisioned OC-3 line configuration
Address=one or all OC-3 line(s)
rtrv-oc12:[*Address*];
displays provisioned OC-12 line configuration
Address=one or all OC-12 line(s)
rtrv-osacmap;
displays Open Systems Application Context Map information
rtrv-passwd;
displays logins, passwords, and user type for all logins
rtrv-pm-lan:*Address*;
displays PM data for IMA LAN circuit pack
Address=LAN port on the IMA LAN circuit pack
rtrv-pm-line:*Address*;
displays PM data for OC-1, OC-3, OC-12, or EC-1 lines
Address=OC-1, OC-3, OC-12, or EC-1 line(s)
rtrv-pm-sect:*Address*;
displays PM data for OC-3 and OC-12 optics, STS-1 within OC-1 line, and STS-3 and STS-12 section
Address=OC-1, OC-3, or OC-12 line(s)
rtrv-pm-sts1:*Address*;
displays PM data for STS-1 signals
Address=one or all STS-1 channel(s)
rtrv-pm-t1:[*Address*];
displays PM DS1 status report
Address=DS1 port(s)
rtrv-pm-t3:*Address*;
displays PM data for DS3 signals
Address=DS3 port(s)
rtrv-pm-tca;
displays PM threshold-crossing alerts (TCA) for signals terminating in or passing through the system
rtrv-pm-vt1:[*Address*];
displays PM status report for one or more VT1.5 channels
Address=one or more VT1.5 channels
rtrv-pmthres-line;
displays current OC-1, OC-3, and OC-12 line PM thresholds
rtrv-pmthres-sect;
displays current section PM thresholds
rtrv-pmthres-sts1;
displays current STS-1 path PM thresholds

rtrv-pmthres-t1;
displays current DS1 path and line PM thresholds
rtrv-pmthres-t3;
displays current DS3 PM thresholds
rtrv-pmthres-vt1;
displays current VT1.5 PM thresholds
rtrv-secu;
displays CIT and DCC port security and timeout information, users who are currently logged into NE via CIT and DCC ports, and users logged into NE via X.25 PCVs and/or SVCs
rtrv-state-eqpt:[*Address*];
displays slot, port, and protection switching state information
Address=one or more slot(s)
rtrv-state-path:[*Address*];
displays signal path state information for paths dropped at NE
Address=any connected VT1.5 or STS-1 protected signals path
rtrv-state-oc1:[*Address*];
displays OC-1 line states
Address=any OC-1 line
rtrv-state-sts1:[*Address*];
displays STS-1 channel states
Address=STS-1 channels
rtrv-state-vt1:[*Address*];
displays VT1.5 channel states
Address=any VT1.5 channel
rtrv-sts1:[*Address*];
displays provisioned parameters of STS-1 channels
Address=STS-1 channels
rtrv-sync;
displays provisioning and operation information on synchronization attributes of DDM-2000
rtrv-t1:[*Address*];
displays configuration information and attributes of one or more DS1 or "internal" DS1 (within TMUX) ports
Address=DS1 or "internal" DS1 (within TMUX) port(s)
rtrv-t3:[*Address*];
displays provisioning information for DS3 ports
Address=DS3 port(s)
rtrv-tl1msgmap;
displays table that associates OS Application Context Identifier (ACID) to TL1 autonomous message types
rtrv-trace-sts1:*Address*;
displays provisioned transmit and receive path traces for the STS-1 channel
Address=STS-1 channels
rtrv-ulsdcc-l3;
displays parameters in Layers 3 through 7 of OSI stack
rtrv-ulsdcc-l4[**:tdc_rpt=***tdc_rpt*];
displays parameters in Layer 4 of OSI stack
tdc_rpt=TARP data cache reporting (yes or no)
rtrv-vt1:[*Address*];
displays provisioned parameters of dropped VT1.5 channels
Address=VT1.5 channels
rtrv-x25;
displays X.25 link packet size, X.25 communication status, and X.25 event history reports

SWITCH

switch-fn:*Address***:pri=***Priority*; (**Caution***)
controls function unit circuit pack protection switching
Address=function unit [fn-{a, b, c}]
pri=switch request priority (reset, inhibit, forced, or manual)
switch-line:*Address***:pri=***Priority*; (**Caution***)
controls OC-3 line protection switching
Address=OC-3 lines
pri=switch request priority (reset, inhibit, lockout, forced, or manual)
switch-ls:*Address***:pri=***Priority*; (**Caution***)
controls low speed circuit pack protection switching
Address=low-speed slot(s)
pri=priority of protection switch request (reset, lockout, forced, or manual)
switch-path-sts1:*Address***:pri=***Priority*;
controls STS-1 path switching on path protected ring
Address=STS-1 path carrying traffic
pri=switch request priority (manual)
switch-path-vt1:*Address***:pri=***Priority*;
controls VT1.5 path switching on path protected ring configurations
Address=VT1.5 path carrying traffic
pri=priority of protection switch request (manual)
switch-sync:s=*SyncFunction***:pri=***Priority*; (**Caution***)
controls synchronization protection switching
s=synchronization function (reference, mode, circuitpack, or src)
pri=switch request priority (reset, inhibit, or manual)

SET

set-attr-alm:[**almdel=***AlarmDelay*][,**clrdel=***ClearDelay*] [,**pmn=***PMN*];
sets alarm holdoff and clear delays
almdel=alarm delay in seconds (00-30)
clrdel=alarm clear delay in seconds (00-30)
pmn=power minor alarm level (mn or mj)
set-attr-cont:*Address***:desc=***Description*;
provisions name of environmental control points
Address=control point [cont-{1-4}]
desc=name of control point (up to 26 alphanumeric characters)
set-attr-env: Address[**:alm=***Alarm*][,**almtype=***AlarmType*] [,**desc=***Description*];
sets alarm level of environmental input points
Address=environment input point [env-{1-21,all}]
alm=alarm level (cr, mj, mn, or na)
almtype=type of alarm (up to 10 alphanumeric characters)
desc=name for point (up to 26 alphanumeric characters)
set-date:[**date=***Date*][,**time=***Time*];
sets date and time
date=year, month, and day (YYMMDD)
time=hour, minute, and second (HHMMSS)
set-ec1:*Address*[**:alm=***AlarmLevel*] [,**dgr=***SignalDegradeThreshold*];
sets alarm and signal degrade threshold levels of EC-1 port
Address=EC-1 ports
alm=alarm level (cr, mj, mn, or na)
dgr=signal degrade threshold level (–9 to –5)

set-feat:feat=*Feature*,**act=***Action*;
sets network element feature options
feat=feature available to user (sts3c, vtpm, or ds1pm)
act=action (enabled or disabled)

set-fecom:*Address*:[**com=***Communications*]
[,**nsus=***NS/US*][,**lanreset=***lanreset*];
enables or disables communication over section DCC channel or IAO LAN
Address=DCC channels or IAO LAN
com=communications over specified DCC or IAO LAN interface (enabled or disabled)
nsus=network side/user side DCC ID for NE (ns or us)
lanreset=reset NE's LAN interface (y or n)

set-lan:*Address*:**grpid=***imagroupid*,**aa15=***aa15fmt*,
vpi=*virtualpathid*,**vci=***virtualchannelid*,
scrambler=*atmscrambler*,**polynom=***atmpolynomial*,
length=*framelength*,**fcs=***framechecking*,
alm=*alarmlevel*,**pmmd=***pmmode*];
sets IMA LAN internal parameters
Address=low speed slots equipped with IMA LAN circuit pack
grpid=IMA group identifier (0-255)
aa15=ATM adaptation layer 5 (llc or vcmux)
vpi=ATM virtual path identifier (0-255)
vci=virtual channel identifier (0-65535)
length=IMA frame length (32, 64, 128, or 256)
scrambler=ATM scrambler (on or off)
polynom=ATM polynomial (on or off)
fcs=frame check sequence preservation disable (enable or disable)
alm=Alarm level (mj, mn, or na)
pmmd=PM mode of IMA LAN circuit pack (on or off)

set-lgn[**:act=***Action*];
enters, edits, and deletes logins and passwords
act=action (enter, edit, or delete)

set-link:pg=*pagelength*;
sets configuration of CIT link
pg=vertical page size in lines (3-150)

set-ne:tid=*TID*[,**shelf=***Shelf*][,**cort=***CO/RT*]
[,**idle=***IdleChanelSignal*];(R13)

set-ne:tid=*TID*[,**rnestat=***RneStat*][,**almgrp=***AlarmGroup*]
[,**agne=***AGNE*][,**shelf=***Shelf*]
[,**idle=***IdleChanelSignal*][,**cort=***CO/RT*];(R15)
sets network element characteristics
tid=target identifier (shelf name)
(up to 20 alphanumeric characters)
rnestat=remote NE status (enabled or disabled)
almgrp=alarm group (1-255)
agne=alarm gateway element (yes or no)
shelf=numeric identification of system in a bay (1-8)
idle=AIS or unequipped signal (ais or unequipped)
cort=central office (co) or remote terminal (rt)

set-oc12:*Address*:[**dgr=***SignalDegrade*]
[,**syncmsg=***SynchronizationMessaging*][,**aisalm=***Alarm*]
[,**dcc=***DccMode*];
sets parameters of specified OC-12 line or line pair
Address=OC-12 line or line pair
dgr=signal degrade threshold (–9 to –5)
syncmsg=allows timing to be reconfigured in a network upon a node or fiber failure (Kbyte, Sbyte, or disabled)
aisalm=NSA OC-12 line AIS alarm level (cr, mj, mn, or na)
dcc=configures an OC-12 ring interface to interwork with either a ring or 1+1 application

set-oc3:*Address*:[**dgr=***SignalDegradeThreshold*]
[,**syncmsg=***SynchronizationMessaging*][,**aisalm=***Alarm*];(R13)

set-oc3:*Address*:[**dgr=***SignalDegradeThreshold*]
[,**syncmsg=***SynchronizationMessaging*][,**aisalm=***Alarm*]
[,**dcc=***DccMode*][,**app=***Application*];(R15)
sets parameters of specified OC-3 line or line pair
Address=OC-3 line(s) or line pair(s)
dgr=signal degrade threshold (–9 to –5)
syncmsg=allows timing to be reconfigured in a network upon a node or fiber failure (Kbyte, Sbyte, or disabled)
aisalm=NSA OC-3 line AIS alarm level (cr, mj, mn, or na)
dcc=configures an OC-3 ring interface to interwork with either a ring or 1+1 application
app=ring application (0x1 or 1+1)

set-oc1:*Address*:[**dgr=***SignalDegradeThreshold*]
[,**aisalm=***Alarm*];
sets parameters for OC-1 line
Address=OC-1 line(s)
dgr=signal degrade threshold (–9 to –5)
aisalm=provisioned alarm level of OC-1 line (cr, mj, mn, or na)

set-passwd;
changes a user's password

set-pmthres-line:[**QHB2CVOC12=***nnnnn*]
[,**DayB2CVOC12=***nnnnnn*]
[,**QHB2CVOC3=***nnnnn*][,**DayB2CVOC3=***nnnnn*]
[,**QHB2CVOC1=***nnnnn*][,**DayB2CVOC1=***nnnnn*]
[,**QHB2CVEC1=***nnnn*][,**DayB2CVEC1=***nnnnn*]
[,**QHB2ES=***nnn*][,**DayB2ES=***nnnnn*][,**QHB2ESA=***nnn*]
[,**DayB2ESA=***nnnnn*][,**QHB2ESB=***nnn*][,**DayB2ESB=***nnnnn*]
[,**QHB2SES=***nn*][,**DayB2SES=***nnnn*][,**QHB2UAS=***nn*]
[,**DayB2UAS=***nnnn*][,**QHPSCL=***nn*][,**DayPSCL=***nn*]
[,**QHPJC=***nnnnn*][,**DayPJC=***nnnnnnn*];
sets PM thresholds for OC-1, OC-3, or OC-12 line(s)
QHB2CVOC12=OC-12 qtr. hr. coding violations (0-55365)
DayB2CVOC12=OC-12 daily coding violations (0-5315040)
QHB2CVOC3=OC-3 qtr. hr. coding violations (0-13841)
DayB2CVOC3=OC-3 daily coding violations (0-1328736)
QHB2CVOC1=OC-1 qtr. hr. coding violations (0-4613)
DayB2CVOC1=OC-1 daily coding violations (0-442848)
QHB2CVEC1=EC-1 qtr. hr. coding violations (0-4613)
DayB2CVEC1=EC-1 daily coding violations (0-442848)
QHB2ES=qtr. hr. errored seconds type A (0-900)
DayB2ES=daily errored seconds type A (0-65535)
QHB2ESA=qtr. hr. errored seconds type A (0-900)
DayB2ESA=daily errored seconds type A (0-65535)
QHB2ESB=qtr. hr. errored seconds type B (0-900)
DayB2ESB=daily errored seconds type B (0-65535)
QHB2SES=qtr. hr. severely errored seconds (0-63)
DayB2SES=daily severely errored seconds (0-4095)
QHB2UAS=qtr. hr. unavailable seconds (0-63)
DayB2UAS=daily unavailable seconds (0-4095)
QHPSCL=qtr. hr. line protection switch count (0-63)
DayPSCL=daily line protection switch count (0-255)
QHPJC=qtr. hr. STS pointer justification count (0-65535)
DayPJC=daily STS pointer justification count (0-9999999)

set-pmthres-sect:[**TxPwr1dB=***n*][**,TxPwr2dB=***n*]
[**,LaserBias=***n*][,**Qhsefs=***nn*][,**Daysefs=***nnnn*];
sets PM thresholds for OC-1, OC-3, and OC-12 sections
TxPwr1dB=–1 dB threshold for optical transmit power (enabled or disabled)
TxPwr2dB=–2 dB threshold for optical transmit power (enabled or disabled)
LaserBias=laser bias threshold (enabled or disabled)
Qhsefs=qtr. hr. severely errored frame seconds (0-63)
Daysefs=daily severely errored frame seconds (0-4095)

set-pmthres-sts1:[**QHB3CV=***nnnn*][,**DayB3CV=***nnnnnn*]
[,**QHB3ES=***nnn*][,**DayB3ES=***nnnnn*][,**QHB3ESA=***nnn*]
[,**DayB3ESA=***nnnnn*][,**QHB3ESB=***nnn*][,**DayB3ESB=***nnnnn*]
[,**QHB3SES=***nn*][,**DayB3SES=***nnnn*][,**QHB3UAS=***nn*]
[,**DayB3UAS=***nnnn*];
sets PM thresholds for STS-1 path
QHB3CV=qtr. hr. coding violations (0-4510)
DayB3CV=daily coding violations (0-432960)
QHB3ES=qtr. hr. errored seconds (0-900)
DayB3ES=daily errored seconds (0-65535)
QHB3ESA=qtr. hr. errored seconds type A (0-900)
DayB3ESA=daily errored seconds type A (0-65535)
QHB3ESB=qtr. hr. errored seconds type B (0-900)
DayB3ESB=daily errored seconds type B (0-65535)
QHB3SES=qtr. hr. severely errored seconds (0-63)
DayB3SES=daily severely errored seconds (0-4095)
QHB3UAS=qtr. hr. unavailable seconds (0-63)
DayB3UAS=daily unavailable seconds (0-4095)

set-pmthres-t1:[**QHESL=***nnn*][,**DayESL=***nnnnn*]
[,**QHCVPSF=***nnnnn*][,**DayCVPSF=***nnnnnnn*][,**QHCVPESF=***nnnnn*]
[,**DayCVPESF=***nnnnnnn*][,**QHESP=***nnn*][,**DayESP=***nnnnn*]
[,**QHSESP=***nn*][,**DaySESP=***nnnn*][,**QHUASP=***nn*]
[,**DayUASP=***nnnn*][,**QHCVPFE=***nnnnn*][,**DayCVPFE=***nnnnnnn*]
[,**QHESPFE=***nnn*][,**DayESPFE=***nnnn*][,**QHSESPFE=***nn*]
[,**DaySESPFE=***nnnn*][,**QHUASPFE=***nn*][,**DayUASPFE=***nnnn*];
sets performance monitoring thresholds of DS1 signal
QHESL=qtr. hr. errored seconds line count (0-900)
DayESL=daily errored seconds line count (0-65535)
QHCVPSF=qtr. hr. code violations path SF count (0-16383)
DayCVPSF=daily code violations path SF count (0-1048575)
QHCVPESF=qtr. hr. code violations path ESF count (0-16383)
DayCVPESF=daily code violations path ESF count (0-1048575)
QHESP=qtr. hr. errored seconds path count (0-900)
DayESP=daily errored seconds path count (0-65535)
QHSESP=qtr. hr. severely errored seconds path count (0-63)
DaySESP=daily severely errored seconds path count (0-4095)
QHUASP=qtr. hr. unavailable seconds path count (0-63)
DayUASP=daily unavailable seconds path count (0-4095)
QHCVPFE=qtr. hr. code violations path far-end count (0-16383)
DayCVPFE=daily code violations path far-end count (0-1048575)
QHESPFE=qtr. hr. errored seconds path far-end count (0-900)
DayESPFE=daily errored seconds path far-end count (0-65535)
QHSESPFE=qtr. hr. severely errored seconds path far-end count (0-63)
DaySESPFE=daily severely errored seconds path far-end count (0-4095)
QHUASPFE=qtr. hr. unavailable seconds path far-end count (0-63)
DayUASPFE=daily unavailable seconds path far-end count (0-4095)

set-pmthres-t3:[**QHCVL=***nnnnn*][,**DayCVL=***nnnnnnn*]
[,**QHESL=***nnn*][,**DayESL=***nnnnn*][,**QHSESL=***nn*]
[,**DaySESL=***nnnn*][,**QHSEFS=***nn*][,**DaySEFS=***nnnn*]
[,**QHPCV=***nnnnn*][,**DayPCV=***nnnnnnn*][,**QHFMCV=***nnnnn*]
[,**DayFMCV=***nnnnnnn*][,**QHCP=***nnnnn*][,**DayCP=***nnnnnnn*]
[,**QHESP=***nnn*][,**DayESP=***nnnnn*][,**QHSESP=***nn*]
[,**DaySESP=***nnnn*][,**QHUASP=***nn*][,**DayUASP=***nnnn*]
[,**QHSEFSFE=***nn*][,**DaySEFSFE=***nnnn*][,**QHCPFE=***nnnnn*]
[,**DayCPFE=***nnnnnnn*][,**QHESPFE=***nnn*][,**DayESPFE=***nnnnn*]
[,**QHSESPFE=***nn*][,**DaySESPFE=***nnnn*][,**QHUASPFE=***nn*]
[,**DayUASPFE=***nnnn*];
sets PM thresholds for DS3 signals
QHCVL=qtr. hr. B3ZS coding violations (0-16383)
DayCVL=daily B3ZS coding violations (0-1048575)
QHESL=qtr. hr. errored seconds (0-900)
DayHESL=daily errored seconds (0-65535)
QHSESL=qtr. hr. severely errored seconds (0-63)
DaySESL=daily severely errored seconds (0-4095)
QHSEFS=qtr. hr. severely errored frame seconds (0-63)
DaySEFS=daily severely errored frame seconds (0-4095)
QHPCV=qtr. hr. pbit coding violations (0-16383)
DayPCV=daily pbit coding violations (0-1048575)
QHFMCV=qtr. hr. fmbit coding violations (0-16383)
DayFMCV=daily fmbit coding violations (0-1048575)
QHCP=qtr. hr. cpbit coding violations (0-16383)
DayCP=daily cpbit coding violations (0-1048575)
QHESP=qtr. hr. PM errored seconds (0-900)
DayESP=daily PM errored seconds (0-65535)
QHSESP=qtr. hr. PM severely errored seconds (0-63)
DaySESP=daily PM severely errored seconds (0-4095)
QHUASP=qtr. hr. PM unavailable seconds (0-63)
DayUASP=daily PM unavailable seconds (0-4095)
QHSEFSFE=qtr. hr. severely errored frame seconds for the far-end cpbit format (0-63)
DaySEFSFE=daily severely errored frame seconds for the far-end cpbit format (0-4095)
QHCPFE=qtr. hr. coding violations for far-end cpbit format (0-16383)
DayCPFE=daily coding violations for far-end cpbit format (0-1048575)
QHESPFE=qtr. hr. errored seconds for far-end cpbit format (0-900)
DaySPFE=daily errored seconds for far-end cpbit format (0-65535)
QHSESPFE=qtr. hr. severely errored seconds for far-end cpbit format (0-63)
DaySESPFE=daily severely errored seconds for far-end cpbit format (0-4095)
QHUASPFE=qtr. hr. unavailable seconds for far-end cpbit format (0-63)
DayUASPFE=daily unavailable seconds for far-end cpbit format (0-4095)

set-pmthres-vt1:[**QHV5ES=**nnnnn][,**DayV5ES=**nnnnnnn]
[,**QHV5SES=**nnn][,**DayV5SES=**nnnnn][,**QHV5UAS=**nnn]
[,**DayV5UAS=**nnnnn];
sets performance parameter thresholds of VT1.5 signal
QHV5ES=qtr. hr. errored seconds count (0-900)
DayV5ES=daily errored seconds count (0-65535)
QHV5SES=qtr. hr. severely errored seconds count (0-63)
DayV5SES=daily severely errored seconds count (0-4095)
QHV5UAS=qtr. hr. unavailable seconds count (0-63)
DayV5UAS=daily unavailable seconds count (0-4095)

set-secu:*Address*:[**sec=***Security*][,**to=***Timeout*];(R13)
set-secu:*Address*:[**porttype=***PortType*]
[,**baudrate=***Baudrate*][,**echo=***echo*][,**sec=***Security*]
[,**to=***Timeout*];(R15)
configures NE system security on CIT and DCC interfaces
Address=CIT and/or DCC ports [dcc-all, cit-{1, 2, all}, x25]
porttype=specifies whether CIT port is used for CIT or TL1 application or X.25 port is synch or asynch
baudrate=specifies the baudrate in which TL1 messages are received/transmitted
echo=specifies whether character entered needs to be echoed back or not
sec=security on specified port (enable, disable, or lockout)
to=timeout of inactive session on CIT (0-120 minutes)

set-state-ec1:*Address***:ps=***PrimaryState*;
sets state of low speed EC-1 ports
Address=EC1 port(s) (all, a, b, c)
ps=port state (auto or nmon)

set-state-oc1:*Address***:ps=***PrimaryState*;
sets state of OC-1 lines
Address=OC-1 line(s)
ps=line state (nmon or is)

set-state-oc3:*Address***:ps=***PrimaryState*;
sets state of OC-3 lines
Address=OC-3 line(s)
ps=line state (nmon or is)

set-state-sts1:*Address***:ps=***PrimaryState*;
sets state of STS-1 channels
Address=STS-1 channel(s)
ps=channel state (auto or nmon)

set-state-t1:*Address***:ps=***PrimaryState*;
sets state of DS1 ports
Address=DS1 port(s)
ps=port state (auto or nmon)

set-state-t3:*Address***:ps=***PrimaryState*;
sets state of DS3 ports
Address=DS3 port(s)
ps=port state (auto or nmon)

set-state-vt1:*Address***:ps=***PrimaryState*;
sets state of VT1.5 channels
Address=VT1.5 channel(s)
ps=channel state (auto or nmon)

set-sts1:*Address***:dgr=***SignalDegrade*
:sfail=*SignalFailure*[,**nsa=***Alarm*][,**sa=***Alarm*];
sets signal degrade alarm threshold of STS-1 channels
Address=STS-1 channel(s)
dgr=bit error rate (BER) threshold (–9 to –5)
sfail=BER of STS-1 channel (–3 or –6)
nsa=provisioned alarm level of non-service affecting STS-1 path AIS (mn or nr)
sa=provisioned alarm level of service affecting STS-1 AIS (cr, mn, na, or nr)

set-sync:[**mdsw=***ModeSwitching*]
[,**src=***SynchronizationSource*][,**omd=OutputMode**]
[,**aisthres=***AISThreshold*][,**auto=***SyncAutoreconfiguration*];
(**Caution***)
sets network element synchronization parameters
mdsw=mode of switch (revertive or nonrevertive)
src=synchronization source (main-1, main-2, or fn-c)
omd=output mode (lock1, lock2, or track)
aisthres=sets incoming synchronization message quality level (level5, level4, level3, or level2)
auto=syncautoreconfiguration (enabled or disabled)

set-t1:*Address*:[**lc=***LineCode*][,**alm=***AlarmLevel*]
[,**fth=***FailureThreshold*][,**dlc=***DLCBPVtoLOS*]
[,**ais=***AlarmIndicationSignal*][,**pmmd=***PMMode*]
[,**fmt=***Format*]; (**Caution***)
provisions parameters of DS1 ports
Address=DS1 port(s) [all, {a, b, c}-{1-7, all}-{1-4, all}]
lc=line code (ami, b8zs, or noOverride)
alm=level of alarm (mj, mn, or na)
fth=fail threshold (–8, –7, –6, or –3)
dlc=inc. sig. fail translated to LOS (yes or no)
ais=alarm indication signal (yes or no)
pmmd=performance monitoring mode of ports (off or on)
fmt=format to be monitored (sf, esf, or esfn)

set-t3:*Address***:**[**md=***Mode*][,**ais=***AlarmIndicationSignal*]
[,**alm=***AlarmLevel*][,**aisalm=***AISAlarmLevel*]
[,**fth=***FailureThreshold*][,**pmmd=***PMMode*]
[,**frame=***Frame*][,**fmt=***Format*][,**xbit=Xbit**]; (**Caution***)
sets the characteristic parameters of DS3 port(s)
Address=DS3 port(s) (a, b, c, all)
md=violation monitor removal mode (vmr, vm, or cc)
ais=alarm indication signal (yes or no)
alm=alarm level (cr, mj, mn, or na)
aisalm=alarm level for incoming DS3 AIS (cr, mj, mn, or na)
fth=failure threshold (–6 or –3)
pmmd=performance-monitoring mode (on or off)
frame=performance-monitoring frame (m13 or cbit)
fmt=format (pbit, fmbit, or cpbit)
xbit= value of both X-bits in outgoing DS3 signal (towards DSX) (1 or 0)

set-trace-sts1:*Address***:**[**EXPTRC=***Expectedincomingpathtrace*]
[,**TRC=***OutgoingPathTrace*];
sets the transmit and receive path trace fields
Address=STS-1 channel(s)
EXPTRC=expected incoming path trace message (up to 62 alphanumeric characters)
TRC=outgoing path trace message (up to 62 alphanumeric characters)

set-vt1:*Address***:dgr=***SignalDegrade*[,**nsa=***Alarm*]
[,**sa=***Alarm*];
sets signal degrade alarm threshold of VT1.5 channels
Address=VT1.5 channels
dgr=BER threshold of VT1.5 signals (–6)
nsa=provisioned alarm level of non-service affecting VT path AIS (mn or nr)
sa=provisioned alarm level of service affecting VT path AIS (cr, mn, na, or nr)

set-x25:PKT=*pkt*;
sets the packet size of X.25 link
pkt=packet size (128 or 256)

TEST

test-alm:[**md=***Mode*][**,r=***Repeat*];
tests office audible and visible alarms
md=office alarm to test (all, cr, mj, or mn)
r=number of times (1-10) to repeat test

test-led:[*Address*]**:**[**r=***Repeat*];
tests shelf LEDs
Address=slot or user panel
r=number of times (1-10) to repeat test

test-sysctl;
tests the entire control system
test-trmsn-t1:*Address*[**:dirn=***Direction*][**,dur=***Duration*];
(**Caution***)
test DS1 transmission
Address=DS1 port {a, b, c}-{1-7}-{1-4}
dirn=direction of test (mux or demux)
dur=length of test in min. (1-120)
test-trmsn-t3:*Address*[**:dirn=***Direction*][**,dur=***Duration*];
(**Caution***)
tests DS3 transmission
Address=DS3 port
dirn=direction of test (mux or demux)
dur=length of test in minutes (1-120)

SPECIAL CHARACTERS

At-sign (@) - erases an input line.
Backspace [^H Ctrl h (Ctrl h)] or underbar (__) - erases a character.
Question mark (?) - help
Semicolon (;) - ends a command.
Carriage return RETURN or ENTER - ends line of input
CANcel or DELete - aborts a command

*_**Caution! Execution of this command may affect service.**_