NTP 297-3601-902

DMS-10 Family

600-Series Generics

Pocket Guide to
Maintenance Commands

NORTEL

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Contents

1: Resident Commands

The resident commands are a set of commands located in system memory, therefore it is not necessary to load an overlay to access them.

General Commands	Description
####	Interrupts any maintenance-terminal output, aborts execution of the current command, and places the maintenance terminal in input mode. Response is the prompt character >, ? , or #, if not currently in an overlay. Note: Telnet-connected TTYs require a <CR> after the command is entered.
****	Interrupts any maintenance-terminal output and aborts the overlay program. Response is the prompt character #. Note : Overlays that usually do not allow preemption will not be aborted by this command. Note : Telnet-connected TTYs require a <CR> after the command is entered.
%%%%	Dumps output message buffers of the maintenance terminal that inputs the command. CAUTION: Because this command empties the output message buffer without displaying the contents at the maintenance terminal, important trouble messages may be lost. Note: Telnet-connected TTYs require a <CR> after the command is entered.

General Commands	Description
!!!!	Dumps output message buffers of all maintenance terminals CAUTION: Because this command empties the output message buffer without displaying the contents at the maintenance terminal, important trouble messages may be lost. Note: Telnet-connected TTYs require a <CR> after the command is entered.
[	Line delete
@	Character delete
?	Help command that causes the system to display valid inputs for commands in diagnostic overlays and valid responses for prompts in data modification overlays. Note: All possible responses for a given prompt or inputs for a given command are listed; applicable responses or inputs, however, can be determined by referring to the appropriate overlay description located either in NTP 297-3601-311, 297-3601-456, or 297-3601-506.
LOGI <CR>	Log in (used to start interactive session and to log into a TTY with a user account). The command has the following prompting sequence: "USER>" - Prompts for an existing User account at the login prompt (!) if the forced login indicator (FLGI) is set for the logical unit in the CNFG - LOGU prompting sequence, or if the command is entered at the resident prompt (#). "PSWD>" - Prompts for the User account password. "PSWD>" - If the user password has expired, prompts for a new password to be entered. "RPWD>" - Prompts for the user password to be re-entered. Must enter the same password as entered for the previous prompt.

General Commands	Description
	"PASS?" - Prompts for the TTY class password.
LOGO <CR>	Log out (used to terminate interactive session).
OVLY	Query the system to determine which overlays are active (one maintenance overlay and multiple, compatible administrative overlays may be active simultaneously).
OVLY mnemonic <CR>	Load the overlay, identified by a mnemonic, into the overlay area (accomplished if the overlay area is not occupied).
OVLY mnemonic IMED <CR>	Abort the currently loaded overlay and immediately load the overlay identified by the mnemonic. Note : The currently loaded overlay will not be aborted if it has a higher task priority than the overlay specified in this command. One maintenance overlay and multiple, compatible administrative (DMO) overlays may be in use simultaneously. The overlay classes (in descending order of priority) are: 1. Debug 2. Maintenance 3. Traffic Change 4. DMO 5. Background Note : The currently loaded overlay will not abort until it completes the test that it is performing. Note : Overlays that usually do not allow preemption will not be aborted by this command.

General Commands	Description
OVLY INIT CREQ <CR>	Abort the currently loaded MTC overlay or scheduled overlay and clear all pending background overlay requests for maintenance. Note: When this command is issued, operating company personnel are responsible for clearing/detecting problems that the scheduled background routine would otherwise have identified.

Audit Commands	Description
AUDT IDT site IDE b <CR>	This command specifies an Integrated Digital Terminal (IDT) location as a starting point for the Integrated Digital Terminal Line (IDTL) Embedded Operations Channel (EOC) fault audit

Bell Commands	Description
STAT BELL <CR>	Print status of local audible alarms; BELL ACT or BELL DACT.
ACT BELL <CR>	Enable local audible alarms; prints BELL ACT.
DACT BELL <CR>	Disable local audible alarms; prints BELL DACT.

Cluster Commands	Description
ACC SSO *n* <CR>	Access SSO *n*, where *n* is the terminal port number of an SSO. Valid numbers are 0 through 15. The cluster implementation supports one host (HSO or LCC) and 16 SSOs.
ACC HSO <CR>	Return terminal access to the HSO or LCC. Used in conjunction with ACC SSO command.

Cluster Commands	Description
ACT TALM SSO *n* <CR>	Echo all tandem alarms from all SSOs in a cluster to SSO *n*, where *n* is the identifying number or numbers of one or more SSOs, or to all SSOs in the cluster. Valid numbers are 0 through 15 or ALL. The cluster implementation supports one host (HSO or LCC)and 16 SSOs.
DACT TALM SSO *n* <CR>	Deactivate tandem alarm feature, where *n* is the identifying number or numbers of the one or more SSOs receiving the echoed alarms, or ALL.
QUE TALM	Identify the SSOs that are activated for tandem alarms. The system response is "TALM SSO *n*" where *n* is the identifying number of the SSO, or "TALM SSO NONE"

Emergency I/O (EIO) Commands	Description
ACT EIO <CR>	Activate EIO.
((((	Activate EIO (when the TTY is in the output mode).
nn ACT EIO <CR>	Activate EIO at the indicated satellite office (SSO, 0-15; HSO, 16) while in the SSO access mode.
DACT EIO <CR>	Deactivate EIO.
))))	Deactivate EIO (when the TTY is in the output mode).
nn DACT EIO <CR>	Deactivate EIO at the indicated satellite office (SSO, 0-15; HSO, 16) while in the SSO access mode.
STAT EIO <CR>	Provide EIO TTY status.

Line Load Control Commands	**Description**
	Line Load Control (LLC) is activated only in cases of extreme emergency. Refer to the NTP entitled *Features and Services Description* (297-3601-105) and to local administration procedures before activating LLC.
ACT LLC <CR>	Activate line load control. System response is LLC ACT. CAUTION: Use of the command ACT LLC causes non-essential subscribers' lines to be removed from service.
DACT LLC <CR>	Deactivate line load control. System response is LLC DACT.
STAT LLC <CR>	Request status of line load control. System response is LLC ACT or LLC DACT.

Message Forwarding Command	**Description**
	Enter the MSG command and then depress the carriage return key to forward the message.
MSG *n* message <CR>	Send message to terminal *n*, where *n* is 0 through 31. ***Note:*** Storage restrictions imposed by the I/O system limit the length of the command and the message to 80 characters. Any input in excess of 80 characters is not forwarded to the other terminal.

Monitor Command	Description
	Used for remote monitoring.
MON *n* <CR>	Monitor terminal *n* (0 through 31), where *n* is the remote terminal number, and repeat at this terminal whatever is designated for terminal *n*. Note : This command is not valid on a TTY with the SCCS format. The SCCS TTY displays all messages from MTTYs that are assigned any of the same output message classes assigned to the SCCS. Similarly, this command cannot be used to monitor the TRAF terminal in an HSO. Note : To disable remote monitoring, enter %%%%.

Operational Measurement Commands	Description
PRNT OPM ALL <CR>	Print all operational measurements blocks
PRNT OPM *block mnemonic(s)* <CR>	Print operational measurement block(s), identified by *block mnemonic*. Refer to the NTP entitled *Operational Measurements* (297-3601-456) for block mnemonic definitions.

Output Message Class Select Commands	Description
CSEL <CR>	Identify message classes assigned to this terminal.

Output Message Class Select Commands	Description
CSEL XXXX <CR>	Print only messages appropriate to the indicated class or classes (XXXX). XXXX can be ALL (all classes), BTTY (maintenance terminal for batch DMOs), CLI (calling line identification), DEBG (debug), DLNK (data link), DMO (data modification), EDAS (EADAS), LIT (line insulation test), MTC (maintenance), RSB (remote service bureau), TRAF (traffic), or NONE (suppress printout of all messages assigned to the terminal). The selected message class must have been declared using prompt USER in Overlay CNFG (LOGU prompting sequence).

Query Commands	Description
QUE LOGI <CR>	Query user's password classes.
QUE CSEL <CR>	Print message classes selected by CSEL XXXX command.
QUE CLAS <CR>	Query the message classes assigned to this terminal.
QUE RTU <CR>	Query the current percentage of CPU real-time use. This measurement is updated at 5-min intervals.
QUE SITE <CR>	Query the site name that is specified for the CLLI prompt in the CNFG (SYS) prompting sequence.
QUE USER <CR>	Query active users on the DMS-10.

Time and Date Commands	Description
	Used only by administrative personnel after a system startup.
DATE <CR>	Request date.

Time and Date Commands	Description
	Used only by administrative personnel after a system startup.
DATE *day dd mm yyyy* <CR>	Set date. *day* = MON/TUES/WED/THUR/FRI/SAT/SUN *dd* = date (two digits) *mm* = month (two digits) *yyyy* = year (four digits).
TIME <CR>	Request time.
TIME *hh mm ss* <CR>	Set time, where *hh* is the hour (00-23), *mm* is the minute (00-59), and *ss* is the second (00-59).
TMAD *hh mm ss* <CR>	On systems equipped with AMA, this command adjusts the system clock to a new time and updates any in-progress billing registers. Note: For changes involving daylight saving time, use the TMAD command. For time changes of more than 24 hr, use the TIME command. Adjust the time, where *hh* is the new hour (00-23), *mm* is the new minute (00-59), and *ss* is the new second (00-59). The system response is one of the following: (a) *hh mm ss*, indicating the amount of time that must be added to (+) or subtracted from (?) the time on the system clock. This response is followed by the prompt " > ". The valid user response is YES <CR>, make time adjustment, or NO <CR>, do not make time adjustment. This response must be entered within 30 s or the time adjustment command will timeout. (b) NO TIME DIFFERENCE-The system clock and the TMAD command show the same time. (c) TMAD TIMEOUT-No response received within 30 s after the <CR> following a TMAD command.

Time and Date Commands	Description
	Used only by administrative personnel after a system startup.
	(d) TMAD FINISHED-Time adjustment completed and in-progress billing registers have been adjusted.
	(e) TMAD NOT ALLOWED-The system is not equipped with AMA, use TIME command to adjust time.

TTY Identification Command	Description
MSG <CR>	Request number of the user terminal.

Trouble/Fault Commands	Description
List TRB	Provide a list of known faults and man-made-busy (MMB) and out -of-service (OOS) devices existing in the system at the time the command is input. These faults or devices usually are shelf-level or higher; however, some pack faults may be included.
	Also provides the software generic, issue, and list of all required, optional, and conversion patches defined in the office. The command also provides the CPU/clock status. See prompts LPOF and STAT in overlay CNFG (TRB) in NTP 297-3601-311 (*Data Modification Manual*).
ALIT	Print the test results of line insulation testing (LIT) from the most recent 24-hour testing period. For an explanation of the printout, see the NTP entitled *Input/Output System* (297-3601-300). Applies to a DMS-10 switch configured with the LIT feature only.

Upgrade Commands	Description
	The following commands are valid from a terminal with a password class of ALL, MTC, or ADM. In addition, the UPGD prompt in the overlay CNFG(SYS) prompting sequence must be set to YES. These commands are used to upgrade from a DMS-10 Classic Network configuration to a DMS-10EN configuration. The commands simultaneously busy or return to service the specified network interface packs (MLI or D3A, or BOTH) or return to service the DSI packs.
UPGD BUSY (*MLI/D3A/Both)* <CR>	Simultaneously busy the selected network interface packs (MLI or D3A, or BOTH).
UPGD RTS (*MLI/D3A/Both/DSI)* < CR>	Simultaneously return to service the selected network interface packs (MLI or D3A, or BOTH) or the DSI packs.

2: Alarm Control Overlay

Overlay ALO is used to list alarm conditions that exist in the DMS-10 and to manipulate alarm functions within the base site, and the remote equipment.

Input Command	Description
####	Interrupts any maintenance-terminal output, places the maintenance terminal in input mode, and stops execution of the current command. Response is the prompt character >.
****	Interrupts any maintenance-terminal output and aborts the overlay program. System response is the prompt character #.
?	Queries the system for valid input. Can be used with any command.
ACT ALSD	Activates alarm sending (if equipped in OVLY CNFG [ALRM]).
ALPT (*site*) *n* SET or ALPT (*site*) *n* CLR	Set or clear alarm point *n*. For the DMS-10 base site, *n* = 1 through 64. For an LCE-based remote location, *site* must be specified, and *n* = 1 through 56. Note: If configured with the extended alarm device the base DMS-10 alarm scan points are increased to n = 1 through 127.

Input Command	Description
ALPT (*site*) *n* ACT or ALPT (*site*) ALL ACT	In Switching Control Center System (SCCS) applications, activates a specified building alarm scan point or all building alarm scan points, where *n* specifies the alarm point number. Activates the indicated alarm(s) in the DMS-10 office and causes the alarm(s) to be sent to the SCCS. Activates a specified alarm scan point or all alarm scan points, at the site. Activates the indicated alarm(s) in the DMS-10 office.
ALPT (*site*) *n* INHB or ALPT (*site*) ALL INHB	In Switching Control Center System (SCCS) applications, inhibits a specified building alarm scan point or all building alarm scan points, where *n* specifies the alarm point number. Inhibits the indicated alarm(s) in the DMS-10 office and prevents the alarm(s) from being sent to the SCCS. Inhibits a specified alarm scan point, or all alarm scan points, at the site, if the scan point(s) have the option field “INHB” set to “YES.” The “INHB” field is accessed by means of the Overlay ALRM. Inhibits the indicated alarm(s) in the DMS-10 office.
BUSY ALPK CE *b s p*	Busies the Alarm Processor pack.
CLR *class* (*site*) *source* or CLR *class* ALL	Clears the given alarm. *class* can be one of: CAT catastrophic alarm MAJ major alarm MIN minor alarm. *site* is the four-character mnemonic of the remote location. If not specified, the base site is assumed. *source* can be one of: BUG BUG message overload

Input Command	Description
	CCS7 Common Channel Signaling System #7 device
	CED Overlay CED
	CNFG Memory configuration (*class* can only be MAJ or MIN)
	CSUS Central Automatic Message Accounting suspended
	DCM Digital Carrier Module (DCM)
	DED Overlay DED alarm for a peripheral shelf, REM, or DCM
	DLC Data Link Controller pack
	EIO Emergency I/O
	ESB Emergency Service Bureau
	EXT External alarm scan points
	INI System Initialization
	IOD Overlay IOD
	LAN Local Area Network equipment
	LIT Line Insulation Test
	LKT Line lockout threshold exceeded
	LLC Line load control
	MISC Unclassified
	MTU Magnetic Tape Unit

Input Command	Description
	NED Overlay NED
	PED Overlay PED
	RBCD Overlay RBCD
	REM Remote Equipment Module (REM)
	RNGF LCM ringing faults
	SCM Subscriber Carrier Module (SCM)
	SED Overlay SED
	SYS System software reload (SYSLOAD)
DACT ALSD	Deactivates alarm sending to the operator if prompt ALSD = YES in OVLY CNFG (ALRM).
DSBL AT	Disables the alarm transfer switch.
ENBL AT	Enables the alarm transfer switch.
LIST ACNT *site* IDE *n*	Provides a count of RDT alarms within the categories, facility (FCT), equipment (EQP), environmental (ENV), software (SFW), service (SRV), threshold alert (TRS), indeterminate (IND), and scheduled (SHD), and according to the severity levels, indeterminate (IND), warning (WRN), minor (MIN), major (MAJ), and critical (CRT). If the RDT does not support external alarms, an ALO010 message is output.
LIST ALM	Provides a list of all alarm conditions that exist within the system.
LIST ALPK ALL	List status of all Alarm Processor packs.
LIST ALPK BUSY	List busied Alarm Processor packs.
LIST ALPK INS	List in-service Alarm Processor packs.
RSET RING	Reset PE Ringing Generator pack alarm.
RTS ALPK CE *b s p*	Return the Alarm Processor pack to service.

Input Command	Description
SDPT (*site*) *n action*	Perform the specified action on signal distribution point *n*. For the DMS-10 base site, *n* = 1 through 63. For an LCE-based remote location, *site* must be specified, and *n* = 1 through 56. *action* can be one of: OPER operate and hold RLSE release PULS operate for 256 ms then release (PULS is not valid for RLCM, OPM, OPAC, or RSC-S sites).
STAT ALPK CE *b s p*	Give the status of the Alarm Processor pack (in-service or busy).
STAT ALSD	Give the status of alarm sending (activated or deactivated).
STAT AT	Give the status of the alarm transfer switch (enabled or disabled).
STAT RING	Give the status of both PE Ringing Generator packs (active, inactive, or disabled).
SWCH RING CE *b s p*	Switch to indicated Ringing Generator pack.

3: Alarm Test Diagnostic

Overlay ALT is used to test the DMS-10 alarm packs.

Input Command	Description
####	Interrupts any maintenance-terminal output, places the maintenance terminal in input mode, and stops execution of the current command. Response is the prompt character >.
****	Interrupts any maintenance-terminal output and aborts the overlay program. Response is the prompt character #.
?	Queries the system for valid input. Can be used with any command.
ALSD ACTV	Activates alarm sending.
ALSD CANC	Cancels alarm sending.
BUSY 0	Busies the Alarm Processor pack.
CLEA	Not for telco use. Clear the software alarm scan/ distribution bits (CLEA <SCAN, DIST> PACK_#).

Input Command	Description
CNTR *alm*	Enables/disables the specified alarm function. This is a design tool and has no field application. This command is not recommended for use on an in-service DMS-10 switch. Use of this command may interfere with internal audits that are constantly monitoring alarm status and indications. *alm* can be one of: CTOF Catastrophic system alarm LED. If alarm is set and LED is on, turns LED off momentarily. CTON Catastrophic system alarm LED. If alarm is not set and LED is off, lights LED momentarily. MJOF Major system alarm LED. If alarm is set and LED is on, turns LED off momentarily. MJON Major system alarm LED. If alarm is not set and LED is off, lights LED momentarily. MNOF Minor system alarm LED. If alarm is set and LED is on, turns LED off momentarily. MNON Minor system alarm LED. If alarm is not set and LED is off, lights LED momentarily. PFOF Power failure alarm LED. If alarm is set and LED is on, turns LED off momentarily. PFON Power failure alarm LED. If alarm is not set and LED is off, lights LED momentarily.

Input Command	Description
	PWOF Power plant alarm LED. If alarm is set and LED is on, turns LED off momentarily.
	PWON Power plant alarm LED. If alarm is not set and LED is off, lights LED momentarily.
	XFOF Alarm transfer disabled.
	XFON Alarm transfer enabled.
LIST	Not for telco use.
MAIN	Not for telco use.
OUTP	Puts the maintenance terminal in output mode so that incoming messages can be printed.
RCVD	Not for telco use.
RTS 0	Returns the Alarm Processor pack to service.
RESE	Resets all signal distribution points.
SEND	Not for telco use.
STAT SCAN/ DIST *n*	For the base site only, provides the status of either the alarm scan points (STAT SCAN) of pack *n* (NT3T53, Alarm Processor pack), where *n* is 0, or the distribution points (STAT DIST) of pack *n* (NT3T54, Alarm Signal Distribution pack), where *n* is either 0 or 1.
SYS *alm* SET or SYS *alm* CLR	Sets or clears the system alarm, where *alm* can be: MAJ Major alarm MIN Minor alarm CAT Catastrophic alarm.
TEST *n p*	For the base site only, operates each signal distribution point and checks alarm scan point for alarm message. Repeats test on each CPU. Testing stops on a CPU when the error count exceeds 600 errors. This command masks certain messages that aren't meant for telco use.

Input Command	Description
	n Number of the SD point to be tested (0 through 30)
	p Signal Distribution pack number (0 or 1)
TEST CONT	For the base site only, operates each signal distribution point and checks alarm scan point for alarm message. Repeats test on each CPU. Testing stops on a CPU when the error count exceeds 600 errors. The test is run to completion, regardless of the error count, and lists all errors found.

4: Custom Calling Tape Backup

Overlay CCTB is used to protect custom calling data during a planned system reload by dumping the data onto an IOI device before the reload.

In Generic 503 and later 500-Series releases, the database will be inaccessible during custom calling data backups to the DMS-10 file system by the CCTB overlay. Any pending database changes will be made after the custom calling data backup has completed.

Input Command	Description
####	Interrupts any maintenance-terminal output, places the maintenance terminal in input mode, and stops execution of the current command. Response is the prompt character >.
****	Interrupts any maintenance-terminal output and aborts the overlay program. Response is the prompt character #.
?	Queries the system for valid input. Can be used with any command.
ACTV *file#* HD0/ HD1/MO0	In Generic 601.10 and later. Makes the custom calling data file specified by *file#* the active file on the target IOI device. *file#* is obtained from the QUE command output for the target IOI device.

Input Command	Description
DUMP HD0 / HD1 / MO0 (TRAC) / ALL	Dump custom calling data from memory to a specified IOI device or to all (ALL) devices. The device can be a hard disk (HD0 or HD1) or a magneto-optical device (MO0). **NOTE:** In 601.10 generics and beyond, when ALL is specified and an IP address of a collection point in the DMS-10 network has been configured via overlay CNFG(AODB) sequence, the latest version of the custom calling data on the primary IOI device will also be transferred to the IP location. The backup data file is the custom calling data file appended with a site name, date, time stamp, and generic that the backup file was created. For example, a custom calling data backup file created for site SYS1 would have the following name: "SYS1.2005.06.22.13.30.601.10.cctb.dat". A DUMP creates two data copies; the data copied to the specified device and a backup copy. The backup copy contains the office data as it appeared prior to the DUMP command execution. TRAC may be selected to list all directory numbers that are dumped onto the device.
GETF *file#* HD0/ HD1/MO0	In Generic 601.10 and later generics. Copies the custom calling data file specified by file# from the IP location into the DMS-10 officeData directory on the specified target IOI device. file# is obtained from the QUE command output for the IP location.
LOAD HD0 / HD1 / MO0 (TN) (TRAC)	Load custom calling data from a specified IOI device to memory by directory number. The device can be a hard disk (HD0 or HD1) or a magneto-optical device (MO0). TN may be selected to load custom calling data by physical terminal number appearance of the customer's line, in ascending order.

Input Command	Description
	TRAC may be selected to list all directory numbers or terminal numbers, if TN is also selected, that are loaded into memory.
MON ON/OFF/ <CR>	In Generic 601.10 and later generics. Turns the FTP trace for the AODB feature on or off. When no parameter is specified the status of the monitor function is output.
PUTF *file#* HD0/ HD1/MO0/<CR>	In Generic 601.10 and later generics. Copies the customer calling data file from the officeData directory on the specified IOI device to the IP location. When a *file#* is entered the customer calling data file specified on the target IOI device is sent to the IP location. When <CR> is entered the active customer calling data file on the primary IOI device is sent to the IP location. *file#* is obtained from the QUE command output for the target IOI device.
QUE	Display the date, time, and size of the last successful execution of the DUMP command for all configured devices.

5: Control Equipment Diagnostic

Overlay CED is used to test the following: CPU Bus Extender and cables, backup memory packs, equipment changeover mechanisms, and Real-Time Clocks.

Command	Description
####	Interrupts any maintenance-terminal output, stops execution of the current command, and places the maintenance terminal in input mode. Response is the prompt character >.
****	Interrupts any maintenance-terminal output, stops execution of the current command, aborts the overlay program, and places the maintenance terminal in input mode. Response is the prompt character #.
?	Queries the system for valid input. Can be used with any command.
ALLW REFS	Allows automatic switchover to the backup synchronization reference source when the primary reference source experiences problems due to an excessive number of span line errors.

Command	**Description**
ALLW SWCH	Allows switchover of CPU activity during automatic CED execution, or if manually loaded, during the execution of a TEST ALL, SWCH CORE, ENBL CORE, or TEST XTDR command.
AT MAN	Alarm transfer manual. The AT switch on the Alarm and Ringing shelf of the CE bay is enabled.
AT REM	Alarm transfer to a remote location. The AT switch on the Alarm and Ringing shelf of the CE bay is disabled.
CHG SYNC *state*	Changes the phase-locked loop state. *state* can be one of: FAST FREE HOLD
CHGO	Allows a remote change over from the active CPU to the inactive CPU. This command duplicates the action caused by physically pressing the change over switches (Enable and Changeover) on the Alarm and Ringing Module.
CHK MEM	Performs a comparison of the active and inactive (idle) memories. This function performs a complete read of all memory and corrects single, soft parity faults.
CLR DISP	Clears the active CPU display to blank.
CLR MAJ	Clears major CED system-detected alarms.
CLR MIN	Clears minor CED system-detected alarms.

Command	Description
DMOL	Data Modification Order Lock. This command blocks DMO execution preventing modification to office data. In Generic 501 and 502, after the lock command (DMOL) is issued, no DMO overlays other than UPDT and CCTB can be loaded. In Generic 503 and later 500-Series releases, after the lock command is issued, DMO overlays may be loaded but commands that modify the office data will be blocked; query-type commands will be permitted. Switch initialization automatically removes a lock, as does the manual unlock command (DMOU). This command may, optionally, be executed just prior to the UPDT command. UPDT is used to backup office data onto storage media at the beginning of the RGU process.
DMOU	Data Modification Order Unlock. This command reverses the effects of the DMOL command allowing office data modification to resume.
DNLD BSP *version*	Downloads the BSP (Board Support Package) FLASH memory on the inactive CPU. Optional input parameter is the version (OLD, NEW, DFLT). If no parameter is provided the default value is used.
DSBL CLK 0/1	Sets the software status of the associated clock pack (NT3T70) to inhibit the software switchover. However, the switchover to disable the clock during an active clock fault will still occur.
DSBL SYNC	Disables the inactive Synchronous Clock pack (NT3T47) and sets the man-made-busy (MMB) status.
ENBL CLK 0/1	Sets the software status of the associated clock pack (NT3T70) to enable the software switchover.

Command	Description
ENBL CORE *mask*	Performs RTC circuitry, Flash memory, main RAM, and Ethernet LAN circuitry testing on the inactive NT3T98 System Processor pack. If all tests pass, the ENBL CORE command briefly switches CPU activity to the currently-inactive CPU and back to the originally-active CPU to verify that the system can successfully execute on the inactive NT3T98 System Processor pack. If the MBIT fault indicator is set when the ENBL CORE command is entered (refer to the STAT CORE command) and all tests pass, the MBIT fault indicator will be cleared. If tests or CPU activity switch fail, the MBIT fault indicator will be set. *mask* can be used to override some faults and conditions (ALRM, BUS, FLSH, INT, IOI, or PWR). If any maskable conditions exist, the ENBL CORE command will fail unless the optional *mask* parameters are included in the command. For information about the mask parameters, refer to the SWCH CORE command. ***CAUTION:*** Use the mask options with extreme caution only after attempting to clear the previously found fault. If the fault has not been cleared, an Initialization or a SYSLOAD may occur.
ENBL INT	Clears stuck interrupt fault indicators and hardware enables all interrupts on the active CPU. ***CAUTION:*** Use this command with extreme caution only after attempting to clear the previously found fault. If the fault has not been cleared, an Initialization or a SYSLOAD may occur.

Command	Description
ENBL SYNC	Enables the inactive Synchronous Clock (NT3T47) pack and clears the man-made-busy (MMB) status. All fault conditions must be cleared with the TEST SYNC command before the ENBL SYNC command can be executed. The ENBL SYNC command is not valid if the response to the SYNC prompt in the SYS prompting sequence (Overlay CNFG) is NO.
ENTR 1BUS (IMED)	Reconfigures the system into the one-bus mode. The ENTR 1BUS command is not allowed unless the NT3T71 maintenance TTY on the inactive Core shelf (TTY 0 or TTY 1) is disabled. In addition, the command is not allowed if one or more of the following conditions are true, unless the optional IMED parameter is included in the command: ● if the system clock (CLK) on the active Core shelf is not enabled and active ● if the synchronous clock (SYNC), if equipped on the active Core shelf, is not enabled and active ● if the system Media Access Controller (MAC) address is the MAC address of the inactive NT3T98 System Processor pack. Use of the IMED option to override this condition will only present a problem if the inactive NT3T98 pack is replaced with another NT3T98 pack while in one-bus mode. In this case, the system MAC address will be automatically reset when the user enters the EXIT 1BUS IMED command to exit the one-bus mode of operation. If the system MAC address is reset and there is any Ethernet (ENET) activity in progress on the active Core, then the Ethernet activity will be disrupted.

Command	Description
EXIT 1BUS (IMED)	Tests and, if possible, reconfigures the system out of one-bus mode or split mode. The NT3T71 maintenance TTY (TTY 0 or TTY 1), the system clock (CLK), and synchronous clock (SYNC), if equipped on the inactive Core shelf, remain disabled and must be manually enabled by the user. If the system Media Access Controller (MAC) address does not match the MAC address of either the active NT3T98 System Processor pack or the inactive NT3T98 pack, the EXIT 1BUS command will not be allowed unless the optional IMED parameter is included in the command. ***CAUTION:*** If the IMED option is used, the system MAC address will be automatically reset to match the MAC address of the active NT3T98 pack. This will disrupt any NT3T98 Ethernet activity in progress. The EXIT 1BUS command tests the inactive Core real time clock (RTC) circuitry and the NT3T70 System Bus Controller inter-CPU ports. If either of these tests fails, the MBIT fault indicator will be set and the system will not exit one-bus mode. If the MBIT fault indicator is not set, the inactive NT3T98 RAM will be tested and enabled. If the MBIT fault indicator is set, the inactive NT3T98 RAM will remain disabled. The ENBL CORE command must be used in this case to clear the MBIT fault and enable inactive NT3T98 RAM.
INH REFS	Inhibits automatic switchover to the backup synchronization reference source when the primary reference source experiences problems due to an excessive number of span line errors. When the automatic switchover has been inhibited, the system enters the *holdover* state and operates without a synchronization reference source.

Command	Description
INH SWCH	Inhibits switchover of CPU activity during automatic and manual CED execution.
INIT	Initialize. Allows a DMS-10 remote initialization or site restart. This command duplicates the action caused by physically pressing the MAN INT button on the NT3T98 System Processor pack.
QUE DNLD	Queries the version of the OLD, NEW, and DFLT (default) Board Support Package (BSP) Flash memory download programs that are present on the root IOI disk.
QUE HEX	Prints the hex display data that was output in the last ICP001 TTY output message. ICP001 messages are printed as part of the Remote Generic Upgrade (RGU) feature and indicate the hex display codes that are displayed on the maintenance-active NT3T98 System Processor pack during a split-core reload. Refer to the ICP001 message in the output message manual (NTP 297-3601-903) for more information.
RSET MAC	Resets the system Media Access Controller (MAC) address to the MAC address of the active NT3T98 System Processor pack. The RSET MAC command is not allowed if the system MAC address is already set to the MAC address of the active NT3T98 pack. ***CAUTION:*** The RESET MAC command will disrupt any NT3T98 Ethernet activity in progress.
SPLD	Allows operating company personnel to split CPUs and load a generic (including office data) from HD1 to the idle CPU. At command execution the idle CPU goes into maintenance active mode and starts automatically sysloading from HD1.

Command	Description
SPLT CORE	Reconfigures the system so that the idle (non-call-processing) CPU is separated from the call processing system. SPLT CORE requires that idle CPU I/O devices are MMB, CLK, and SYNC (if equipped) are enabled, and the primary IOI is disabled.
STAT CLK	Reports the active Core, the status of the network/system clocks as seen by the active Core, and indicates whether the clocks passed the response test at the time of the last Initialization. This command also indicates the source of the network/system clocks that are selected by the NT3T70 DIP switch settings.
STAT CORE	Reports the status of both Core complexes. The report displays the status of the active Core complex followed by the status of both Core complexes and their respective ethernet LAN (ENET) ports.
STAT INT	Reports the location and types of stuck interrupts present in the system and the location where the interrupts are masked.
STAT SYNC	Reports the status of the Synchronous Clock (NT3T47) packs. This command is not valid if the response to the SYNC prompt in Overlay CNFG, SYS prompting sequence is NO. This command also indicates the NT3T70 DIP switch settings.
STAT XTDR	Reports the status of all CPU and I/O bus extenders configured in the system.
SWCH CLK	Switches network/system clock activity if the clock sync feature is disabled or if the Synchronous Clock (NT3T47) pack feeding the idle System Bus Controller (NT3T70) pack is enabled.

Command	Description
SWCH CLK MAN	Switches network/system clock activity even if the Synchronous Clock (NT3T47) pack feeding the idle System Bus Controller (NT3T70) is faulty, provided that the active Synchronous Clock pack is also faulty. This command will not force a switch to a disabled network/system clock.
SWCH CORE *mask*	Switches CPU activity. After CPU activity is switched, software execution resumes at the first instruction following the last instruction that was executed on the previously-active CPU. Calls are not affected by a CPU switch. The CPU switch will not be allowed unless all of the following conditions are met: ● a CPU switch has not been manually inhibited, that is, the INH SWCH command is not currently invoked ● the system is not in one-bus mode - refer to the 1BUS status in the STAT CORE command output ● the inactive NT3T98 pack is not marked faulty, that is, the NT3T70 maintenance bit is not reset - refer to the MBIT status in the STAT CORE command output ● the version of the flash memory on the inactive NT3T98 pack matches that on the active NT3T98 pack - refer to the TEST FLSH command output and the FLSH mask below ● an NT3T72 Alarm Interface fault is not marked against the inactive Core - refer to the ALRM status in the STAT CORE command output and the ALRM mask below

Command	Description
	● an NT8T90 Input/Output Interface (IOI) fault is not marked against the inactive Core - refer to the IOI status in the STAT CORE command and the IOI mask below ● an NT3T72 I/O Bus Extender fault is not marked against the inactive Core - refer to the BUS status in the STAT CORE and STAT XTDR command output, and to the BUS mask below ● a stuck interrupt fault is not marked against the inactive Core - refer to the INT status in the STAT CORE and STAT INT command output, and to the INT mask below ● a power fault is not marked against the inactive Core - refer to the PWR status in the STAT CORE command output and the PWR mask below *mask* can be used to override some faults and conditions and can be one of: FLSH the flash memory versions on the inactive NT3T98 pack do not match the flash memory versions on the active NT3T98 pack ALRM an NT3T72 Alarm Interface fault is marked against the inactive Core BUS an NT3T72 I/O Bus Extender fault is marked against the inactive Core INT a stuck interrupt fault is marked against the inactive Core

Command	Description
	IOI an NT8T90 Input/Output Interface (IOI) fault is marked against the inactive Core
	PWR a power fault is marked against the inactive Core
	IMED all of the maskable faults/conditions above
	CAUTION: Use the mask options with extreme caution only after attempting to clear the previously found fault. If the fault has not been cleared, an Initialization or a SYSLOAD may occur.
SWCH ENET (IMED)	Switches the Ethernet network ports on the active Core unit. If a fault is set against the inactive Ethernet port on the active Core unit (refer to the STAT CORE command), the SWCH ENET is not allowed unless the optional IMED parameter is entered with the command. The SWCH ENET command will fail if the carrier is not present on the inactive Ethernet port on the active Core unit.
SWCH REF	Causes switchover to the backup synchronization reference source when the primary reference source experiences problems due to an excessive number of span line errors. A switchover is allowed only if the synchronization reference source being switched to is valid and is not experiencing problems. A switch back to the primary reference source will occur automatically when the primary reference source is fault free.

Command	Description
SWCH REF (IMED)	Automatically inhibits the automated reference switching. This prevents the system from switching back to the primary reference. ***Note:*** To switch references again after executing SWCH REF IMED, either ALLW REFS should be executed, or the IMED option should be used again (the IMED option automatically performs ALLW REFS).
SYSL	The SYSL command performs a DMS-10 switch hard restart which includes a complete verification, load, and initialization of the CPU. The SYSL command is similar to the action caused by pressing the Enable and Reload switches on the Alarm and Ringing Module. When the Enable and Reload switches are pressed, the DMS-10 switch restarts from CPU 0 in two-bus mode. When the SYSL command is entered, the DMS-10 switch restarts in two-bus mode on the currently-active CPU, that is, the CPU that was active when the SYSL command was entered. This could be either CPU 0 or CPU 1.
TEST ALL	Performs one complete cycle of Control Equipment Diagnostic. The TEST ALL command is not allowed if the system is in one-bus mode.
TEST DISP	Causes the active CPU display to sequence through all 16 hexadecimal digits, from 000 to FFF.
TEST ENET	Tests the Ethernet circuitry on the inactive NT3T98 System Processor pack.
TEST FLSH	Performs a checksum test of Flash memory on the active and inactive NT3T98 circuit packs and reports the Flash version information. If the checksum test of the inactive Flash memory fails, the MBIT fault indicator will be set, indicating that the inactive NT3T98 pack is faulty.

Command	Description
TEST ICP	Tests the Inter-CPU Port (ICP) on the NT3T70 pack for family codes BD and later.
TEST MEM	Destructively tests and restores the inactive Core's DRAM memory.
TEST RTC	Tests the inactive Core real time clock functions.
TEST SYNC	Tests the inactive Synchronous Clock (NT3T47) pack and, if the test is successful, clears any faults marked against the tested pack.
TEST XTDR *mask*	Tests and enables, if possible, all CPU and I/O Bus Extenders that have previously been marked faulty and disabled regardless of CPU activity. The execution of this command may involve brief switches in CPU activity to the currently idle CPU and back to the originally active CPU. If the INH SWCH command is currently invoked, enter the ALLW SWCH command to allow a CPU activity switch only after determining why the switch was inhibited. *mask* can be used to override some faults and conditions (ALRM, BUS, FLSH, INT, IOI, or PWR). The mask parameters for CPU faults will be accepted to allow CPU switching if necessary. For information about the mask parameters, refer to the SWCH CORE command. ***CAUTION:*** Use the mask options with extreme caution only after attempting to clear the previously found fault. If the fault has not been cleared, an Initialization or a SYSLOAD may occur.

6: Circuit Status

Overlay CKT provides the capability to obtain additional data and status information that cannot be obtained from other overlays

Input Command	Description
####	Interrupts any maintenance-terminal output, stops execution of the current command, and places the maintenance terminal in input mode. Response is the prompt character >.
****	Interrupts any maintenance-terminal output, stops execution of the current command, and aborts the overlay program, and places the maintenance terminal in input mode. Response is the prompt character #.
?	Queries the system for valid input. Can be used with any command.
BUSY ITG *n(nn)* or BUSY OTG *n(nn)*	Make man-made-busy all members of the specified incoming or outgoing trunk group, where *n(nn)* is the trunk group number (1-127).
BUSY ILTG *n(nn)* or BUSY OLTG *n(nn)*	Make man-made-busy all members of the specified incoming or outgoing line trunk group, where *n(nn)* is the line trunk group number (1-127).

Input Command	Description
CALC RCUL *(site) lsg l*	Calculate a Remote Carrier Urban (RCU) shelf, card, and unit location, where *site* is the RCU site mnemonic, *lsg* is the RCU line subgroup, and *l* is the RCU line.
CALC ULIN *(site) s c u*	Calculate a Remote Carrier Urban (RCU) line subgroup and line location, where *site* is the RCU site mnemonic, *s* is the RCU shelf, *c* is the Line Card Carrier (LCC) position, and *u* is the unit on that LCC.
DSBL ANIM TG *n(nn)*	Disable ANI-fail message for incoming trunk group *n(nn)*.
DSBL ANIM LTG *n(nn)*	Disable ANI-fail message for incoming line trunk group *n(nn)*.
DSBL FLM	Prevent the DMS-10 switch from outputting the singing margin line failure message (LIN022).
DUMP PE *site* HUBE *b s lsg l* or DUMP PE *site* IDE *n l* or DUMP PE (*site*) LCE *b s lsg l* or DUMP PE (*site*) PE *b s p u* or DUMP PE *site* RSC *b s lsg l* or DUMP PE *site* RSC *b s p l ch*	Dump call-register and device-register information for a given device if it is involved in a call. If device is a line, and the line is idle, the output message is IDLE.

Input Command	Description
DUMP PE *site* RSE *b s lsg l* or DUMP PE *site* SLE *b cb cu* or DUMP PE *site* UCE *b lsg /* or DUMP PE *site* or VLIN *n* or	
DUMP PE (*site*) LCE/RSE/RSC *b s lsg l* TEI *#* or DUMP PE (*site*) LCE/RSE/RSC *b s lsg l* ALL	Dump call-register and device-register information for active devices on an ISDN line. Call- and device-register information can be displayed for an active device defined by a unique terminal endpoint identifier (TEI), or for all active devices on the line.
DUMP *xxxxxxxx*	Dump call register *xxxxxxxx* information.
ENBL ANIM TG *n(nn)*	Enable ANI-fail message for incoming trunk group *n(nn)*.
ENBL ANIM LTG *n(nn)*	Enable ANI-fail message for incoming line trunk group *n(nn)*.
ENBL FLM	Allow the DMS-10 switch to output the singing margin line failure message (LIN022).
LIST *equip* (\) *state*	Print physical location, hardware type, and status of parameters specified, where: *equip* can be one of: ALL All lines and trunks ACT ac Tester

Input Command	Description
AUXT	Auxiliary Ringing and Tone packs
CPSC	CAMA Position Signaling packs
IBRT	Integrated Bit Error Rate Tester packs
ILTG *n(nn)*	Incoming line trunk group number *n(nn)*
ITG *n(nn)*	Incoming trunk group number *n(nn)*
ITTK	Incoming Test Trunk packs
KEY	Stop hunt (SHU) and random-make-busy (RMB) key circuits. If SHU, the hunt group number is given.
LINE	Lines
LTRK	Line trunk packs
LTT	Line and Trunk Test packs
MTCE	Maintenance packs (PMA, NT2T14; PC1, NT2T12; PSC1, NT2T41)
NOLR	Noller Test Trunk packs
OLTG *n(nn)*	Outgoing line trunk group number *n(nn)*
OTG *n(nn)*	Outgoing trunk group number *n(nn)*
PEPR	Peripheral Processor (PEPR) packs

Input Command	Description
	PMS Peripheral Maintenance System PWR +48 V Power Converter pack RCVR DGT and MF Receiver packs TRK Trunks VLIN Virtual lines *state* can be one of: ALL All circuits BUSY Call processing busy circuits FALT All faulty circuits IDLE All idle circuits LKOT Circuits in lockout MMB Maintenance busy circuits RMMB Remote man-made busy circuits UNOC Unoccupied CAMA Position Signaling circuits. COTF Secondary continuity test failed Note : When inputting this command, use of the backslash symbol (\) before state means "not;" for example: "\ IDLE" means "not idle." Note : Valid numbers for ILTG, ITG, OLTG, and OTG are 1-127. Note : COTF applies only to ISUP trunks.

Input Command	Description
PE *(site)* HUBE *b s lsg l* or PE *(site)* IDE *b n* or PE (*site*) LCE *b s lsg l* or PE (*site*) PE *b s p u* or PE *site* RSC *b s lsg l* or PE *site* RSC *b s p l ch* or PE *site* RSE *b s lsg l* or PE *site* SLE *b cb cu* or PE *site* UCE *b lsg l* or PE *(site)* VLIN *n*	List terminal numbers and directory numbers of specified lines.
QUE ALL LCE/RSE/RSC *b s lsg l*	Query the status of ISDN layers 1, 2 and 3, for a location, in a single command.
QUE ANIM TG	Query the status of ANI message for all incoming trunk groups.
QUE ANIM TG *n(nn)*	Query the status of ANI message for incoming trunk group *n(nn)*.

Input Command	Description
QUE ANIM LTG	Query the status of ANI message for all incoming line trunk groups.
QUE ANIM LTG *n(nn)*	Query the status of ANI message for incoming line trunk group *n(nn)*.
QUE FLM	Query the status of the DMS-10 switch control of the singing margin line failure message (LIN022). System response is ENBL (enabled) or DSBL (disabled).
QUE PM01 LCE/ RSE/RSC *b s lsg l* or QUE PM01 *site* IDE *n(n) l*	Query the status of ISDN layer 1 (physical) transmission performance for a specified line location. Produces a count of block errors (BE), errored seconds (ES) and severely errored seconds (SES) based on the following: TXHR transmitted hourly RXHR received hourly TXDY transmitted daily RXDY received daily
QUE PM02 LCE/ RSE/RSC *b s lsg l* or QUE PM02 *site* IDE *n(n) l*	Query the status of ISDN layer 2 (data link) transmission performance for a specified line location. For a specified line location, produces a list of High Protocol Abnormality and service disruption error counts for the following parameters: *transmission performance* (not applicable to IDTs) L200 frames received in error L201 total frames received L202 frames re-transmitted L203 total frames re-transmitted service disruptions (not applicable to IDTs) L204 link reestablishment

Input Command	Description
	L205 received frames buffer overflow
	protocol abnormalities (L207 through L215 and L218 through L220 are also applicable to IDTs)
	L206 Layer 2 high protocol abnormality counter (not applicable to IDTs)
	L207 link not successfully established by DMS-10. For IDT, disconnect mode received as response to Set Asynchronous Balanced Mode (SABME).
	L208 link not successfully established by user terminal equipment. For IDTs, disconnect mode sent in response to the SABME.
	L209 frames received with undefined control field
	L210 frames received with non-valid information field or incorrect length for a supervisory or unnumbered frame
	L211 frames received with non-valid sequence number
	L212 frames received with information field maximum length exceeded
	L213 valid frames received at wrong times. For IDTs, unexpected frames are received.
	L214 FRMR frames received

Input Command	Description
	L215proper response (unnumbered acknowledgement or disconnect mode) not received to establish or reset the link after N200 SABME frames were sent
	L216redundant terminal endpoint identifier (TEI) numbers on access line (D-channel only). (Not applicable for IDTs.)
	L217maximum allowable D-channel subscription limit for D1 (static TEI values 0-63) has been reached (Not applicable for IDTs.)
	L218maximum allowable D-channel subscription limit for D2 (dynamic TEI values 64-126) has been reached. For IDTs, number of minutes under service disruption.
	L219maximum allowable subscription limit D-channel packet links P1 (TEI 0-63) has been reached. For IDTs, number of times service disrupted.
	L220maximum allowable subscription limit D-channel packet links P2 (TEI 64-126) has been reached. For IDTs, output as 0 or 1, where 0 = service not disrupted and 1 service disrupted.

Input Command	Description
QUE PM03 LCE/RSE/RSC *b s lsg l* or QUE PM03 *site* IDE *n(n) l*	Query the status of ISDN layer 3 (network) transmission performance. PM03 monitors non-call service disruptions on a TEI basis, therefore each terminal on a line has a separate count. An alert is generated when Layer 3 thresholds are exceeded. Further alerts do not occur until the counters are reset (every hour) and the threshold is again exceeded. The output lists the location and the Service Profile ID (SPID) and error count for each terminal at that line location, in the following format.
QUE PRI2 *site* CE *b s p lk*	Query the ISDN PRI layer 2 performance monitoring counter values. A DSI module supports two PRI links, each with its own set of performance monitoring counters. Counters are automatically reset on a daily basis or reset when the DSI module is returned to service. Counters L201 through L207 have threshold limits that, when reached, cause an alert notification to be generated and the contributing counters to be reset. The following counts are generated: L201 number of frames received in error error (non-octet aligned frames, abort sequence, CRC error, overrun carrier detect loss) L202 number of information frames received L203 number of information frames re-transmitted L204 number of information frames transmitted L205 number of data-link re-establishments

Input Command	Description
	L206 number of buffer overflows received
	L207 layer 2 protocol abnormalities total
	L208 number of disconnect mode received in response to Set Asynchronous Balanced Mode (SABME) (link was not established)
	L209 number of disconnect mode transmitted in response to Set Asynchronous Balanced Mode (SABME) with invalid DLCI (requested link was not established).
	L210 number of frames received with invalid control field
	L211 number of frames received with invalid information field
	L212 number of frames received with invalid sequence number
	L213 number of frames received with information field exceeding maximum length
	L214 number of unexpected frames received
	L215 number of FRMR frames received
	L216 proper response not received to transmitted SABME
	L217 redundant terminal endpoint identifier (TEI) numbers found

Input Command	Description
	L218 D1 subscription limit exceeded
RTS ITG *n(nn)* or RTS OTG *n(nn)*	Return to service all members of the specified incoming or outgoing trunk group, where *n(nn)* is the trunk group number (1-127).
RTS ILTG *n(nn)* or RTS OLTG *n(nn)*	Return to service all members of the specified incoming or outgoing line trunk group, where *n(nn)* is the line trunk group number (1-127).
SCAN *(site)* PE *b s p* (PE-based line or analog trunk card) or SCAN *(site)* CE *b s p l u* (DSI digital trunk) or SCAN *(site)* PE *b s p u* (DCM digital trunk)	Issues a directed scan (response test) to the specified IS-based (Interface Signaling Chip) device and waits for a response.
STAT GET *site* CE *b s p l ch* or	Print status of specified location. For a list of possible equipment states that may be printed, refer to the LIST command.
STAT GET *site* HUBE *b s lsg l* or	
STAT GET *site* HUBE *b s lsg bdch* or	
STAT GET *site* IDE *n(n) l* or	

Input Command	**Description**
STAT GET *(site)* LCE *b s lsg l* or LCE *b s lsg bdch* or STAT GET *(site)* PE *b s p u* or STAT GET *site* RLDE *n lsg l* or STAT GET *site* RSC *b s lsg l* or STAT GET *site* RSC *b s lsg bdch* or STAT GET *site* RSC *b s p l ch* or STAT GET *site* RSE *b s lsg l* or STAT GET *site* RSE *b s lsg bdch* or STAT GET *site* SLE *b cb cu* or STAT GET *site* UCE *b lsg l*	

Input Command	Description
STAT SET *site* CE *b s p l ch ckt status* or STAT SET *site* HUBE *b s lsg l ckt status* or STAT SET *site* IDE *n(n) l ckt status* or STAT SET (*site*) LCE *b s lsg l ckt status* or STAT SET (*site*) LCE *b s lsg ckt status* or STAT SET *(site*) PE *b s p u ckt status* or STAT SET *(site*) RLDE *n lsg l ckt status* or STAT SET *site* RSC *b s lsg ckt status* or	Force specified circuit to indicated status. *status* can be one of: DSBL Disabled ENBL Enabled FALT Disabled due to fault MMB Man-made-busy OK Idle or non-MMB. *ckt* can be one of: ACT ac Tester AUXT Auxiliary Ringing and Tone pack BDCH ISDN Bd-channel (ENBL or DSBL only) CPSC CAMA Position Signaling pack IBRT Integrated Bit Error Rate Tester ITTK Incoming Test Trunk pack KEY key circuits LINE Line LTRK Line Trunk LTT Line and Trunk Test pack MTCE Maintenance pack (PMA, NT2T14; PC1, NT2T12; PSC1, NT2T41) NOLR Noller Test Trunk pack PEPR Peripheral Processor pack PMS Peripheral Maintenance System RCVR DGT or MF Receiver pack TRK Trunk

Input Command	Description
STAT SET *site* RSC *b s lsg l ckt status* or STAT SET *site* RSC *b s p l ch ckt status* or STAT SET *site* RSE *b s lsg ckt status* or STAT SET *site* RSE *b s lsg l ckt status* or STAT SET *site* SLE *b cb cu ckt status* or STAT SET *site* UCE *b lsg l ckt status*	
ZERO PM01 *site* LCE/RSE/RSC *b s lsg l* or ZERO PM01 *site* IDE *n(n)*	Resets IDT PM error counters for first Layer if the PM01 option is used.

Input Command	Description
ZERO PM02 *site* LCE/RSE/RSC *b s lsg l* or ZERO PM02 *site* IDE *n(n)*	Resets IDT PM error counters for second Layer if the PM02 option is used.
ZERO PM03 *site* LCE/RSE/RSC *b s lsg l* or ZERO PM03 *site* IDE *n(n)*	Resets IDT PM error counters for third Layer if the PM03 option is used.
ZERO PRI2 *site* CE *b s p lk*	Resets the ISDN PRI layer 2 performance monitoring counters to zero for the specified DSLK.

7: Digital Equipment Diagnostic

Overlay DED is used to test the following equipment: Digital Carrier Modules (DCMs), digital trunks, base and remote Line Concentrating Equipment (LCE), Subscriber Remote Interface (SRI) packs and links, and Peripheral Equipment (PE).

Input Command	Description
####	Interrupts any maintenance-terminal output, stops execution of the current command, and places the maintenance terminal in input mode. Response is the prompt character >.
****	Interrupts any maintenance-terminal output, aborts the overlay program, and places the maintenance terminal in the input mode. Response is the prompt character #.
?	Lists all possible inputs for a command or for a command parameter. For example, **? <CR>** reports all possible commands in the overlay, ***<command>* ?** reports all possible first level parameters for the given command in the overlay, and ***<command> <parameter1>* ?**, reports all possible second-level parameters for the given command.

Input Command	Description
ABRT RCU *site* UCE *b s*	Causes the Automatic System Test (AST) to be aborted.
APPL ESMC *n(n) site* MVIE *b s p*	Applies ESMA patch n(n) to the specified ESMC. In order for the command to be executed, the specified ESMC must be MMB.
APPL RSCC *n(n) site* RSC *b s p*	Applies Remote Switching Center (RSC-S) patch n(n) to the specified RSCC. In order for the command to be executed, the specified RSCC must be MMB.
APPL SCSC *n(n) site* SCE *b s*	Applies SCM-10S Control Complex (SCSC) patch n(n) to the specified SCSC. In order for the command to be executed, the specified SCSC must be MMB.
APPL SCUC *n(n) site* SCE *b s*	Applies SCM-10U Control Complex (SCUC) patch n(n) to the specified SCUC. In order for the command to be executed, the specified SCUC must be MMB.
BLCK D1LK SCE *b s p u* (IMED)	Applies only to a D1LK serving a SLC-96. Prevents (blocks) the protection DS-1 link from sparing a primary DS-1 link. If the protection link is already sparing the designated primary link, the protection link is placed back into standby and the primary link being spared cannot be protected unless the block is removed by the UBLK command.
BLCK EOC0/ EOC1 *site* IDE *b*	Blocks the standby embedded operations (EOC) channel of the specified IDT from being switched and becoming the active EOC channel.
BLCK TMC0/ TMC1 *site* IDE *b*	Blocks the standby time slot management (TMC) channel of the specified IDT from being switched and becoming the active TMC channel.
BUSY D1LK SCE *b s p u* (IMED)	Places the specified DS-1 link in the man-made-busy (MMB) state.

Input Command	Description
BUSY D1PK SCE *b s p* (IMED)	Places the specified DS-1 Interface pack in the man-made-busy (MMB) state.
BUSY D30L *site* RSC *b s p u* (IMED)	Places the specified RSC-S P-side DS-30A link on an NTMX74 pack in the man-made-busy (MMB) state.
BUSY DCM (*site*) PE *b s p* (IMED)	Places the specified Digital Carrier Module in the man-made-busy (MMB) state. The "*p*" in PE *b s p* is the leftmost pack of the DCM.
BUSY DS1L *site* RSC/MVIE/HUBE *b s p u* (IMED)	Places the specified RSC-S or ESMA P-side DS-1 link on an NTMX81 pack, or the specified Star Hub P-side DS-1 link on an NTTR77 pack, in the man-made-busy (MMB) state.
BUSY DSI CE *b s p* (IMED)	Places the specified DSI module in the man-made-busy (MMB) state. All links or trunks associated with the module are made indirectly disabled. Spans are brought into local loop-back mode and all calls on the spans are dropped. In order for the command to be executed, all CCS7 signaling links carried by the module must be in a man-made-busy state; this prevents the busy command from disabling the CCS7 network. In addition, all HSO/SSO links carried by the module must be in man-made-busy state. The IMED option can cause loss of calls or can prevent new calls being placed outside the office.
BUSY DSLK CE *b s p lk* (IMED)	Places the specified DSI link in the man-made-busy (MMB) state. This command indirectly disables all of the digital trunks associated with the link. In order for the command to be executed, all CCS7 signaling links carried by the associated DSI module must be in a man-made-busy state; this prevents the busy command from disabling the CCS7 network. In addition, all HSO/SSO links carried by the module must be in man-made-busy state.

Input Command	Description
BUSY DTRK *(site)* PE *b s p u* (DCM digital trunk) or BUSY DTRK *(site)* CE *b s p l u* (DSI digital trunk) or BUSY DTRK *(site)* RSC *b s p l u* (RSC-S digital trunk)	Places the specified digital trunk in the man-made-busy (MMB) state.
BUSY EDCH MVIE *b s p* (IMED)	Places the specified Enhanced D-Channel Handler (EDCH) pack (NTBX02BA) in the MMB state. If the EDCH is assigned an ISDN System Group and there is no EDCH pack for sparing, the IMED option must be used to busy the EDCH. The IMED option places the EDCH in the MMB state and the associated ISG and ISDN IDTLs in the IND state.
BUSY EOC0/ EOC1 *site* IDE *b* (IMED)	Places the specified embedded operations channel (EOC) channel in the man-made-busy (MMB) state.
BUSY ESAC *site* LCE *b s* (IMED) or BUSY ESAC *site* RSE *b s p* (IMED)	Places the specified ESA processor in the MMB state.
BUSY ESMC MVIE *b s p* (IMED)	Places the specified ESMA unit in the MMB state.
BUSY HUBC *site* HUBE *b s p* (IMED)	Places the specified Star Hub Remote Controller pack (NTTR77) in the MMB state.

Input Command	Description
BUSY IDC (*site*) LCE/RSC/RSE *b s lsg*	Places the specified IDC pack in the man-made-busy (MMB) state.
BUSY IDT *site* IDE *b* (IMED)	Places the specified Integrated Digital Terminal in the man-made-busy (MMB) state.
BUSY LCMC *(site*) LCE/RSC *b s* (IMED)	Places the specified LCM control unit (packs NT6X51 and NT6X52) in the man-made-busy (MMB) state. The *s* may be either shelf of the LCM. The IMED option is necessary when trying to busy an LCMC whose mate LCMC is busy.
BUSY LRNG (*site*) HUBE *b s p* (IMED)	Places the specified 6X60 Ringing Generator pack (NTTR60) in the man-made-busy (MMB) state. The Star Hub Remote Controller pack (NTTR77) pack associated with the NTTR60 will be placed in the INDIR DSBL state.
BUSY LRNG (*site*) LCE/RSE *b u* (IMED)	Places the specified Ringing Generator pack in the man-made-busy (MMB) state. This command is valid for an RSLM Type A shelf only with the IMED option and it will make both RSLCs indirectly disabled.
BUSY LSG (*site*) LCE/RSE/RSC *b s lsg* (IMED)	Places the specified line subgroup in the man-made-busy (MMB) state.
BUSY LSGD (*site*) LCE/RSE/ RSC *b s lsg* (IMED)	Places the specified line drawer in the man-made-busy (MMB) state. The "*lsg*" may be either subgroup of the drawer.
BUSY LTRK *(site*) PE/CE *b s p ch*	Places the specified line trunk in the man-made-busy (MMB) state.
BUSY PSC2 (*site*) PE *b s* (IMED)	Places the specified Peripheral Shelf Converter pack (NT2T42) in the man-made-busy (MMB) state.

Input Command	Description
BUSY PSHF (*site*) PE *b s*	Places the specified peripheral shelf in the man-made-busy (MMB) state.
BUSY RCU *site* UCE *b s* (IMED)	Places the specified RCU in the man-made-busy (MMB) state.
BUSY REM *site* PE *b s p* (IMED)	Places the specified Remote Equipment Module in the man-made-busy (MMB) state. The "*p*" in PE *b s p* is the leftmost pack of the RCM (that is, position 2, 6, 11, or 15) or position 3, 7, 12, or 16 for the OCM.
BUSY RLD	Not operational.
BUSY RMM *site* LCE/RSC *b s* (IMED)	Places the specified Remote Maintenance Module in the man-made-busy (MMB) state. The *"s*" in LCE *b s* is always 4 for an RLCM and 1 for an OPM or OPAC.
BUSY RSCC *site* RSC *b s p* (IMED)	Places the specified Remote Switching Center (RSC-S) unit in the man-made-busy (MMB) state.
BUSY RSLC *site* RSE *b s p* (IMED)	Places the RSLM/RSLE processor in the MMB state. The IMED option must be used with the RSLC command if the mate RSLC is in the BUSY state. (*p* may be 5 or 7 for RSLM shelves and 5 or 8 for RSLE shelves).
BUSY SCSC *(site)* SCE *b s* (IMED)	Places the specified SCM-10S Control Complex in the man-made-busy (MMB) state. The *"s*" in SCE *b s* is either shelf of the SCM-10S.
BUSY SCUC *(site)* SCE *b s* (IMED)	Places the specified unit of the SCM-10U in the man-made-busy (MMB) state.
BUSY SLC *site* SLE *b cb* (IMED)	Places the specified SLC-96 in the man-made-busy (MMB) state.
BUSY SLSH *site* SLE *b cb sh* (IMED)	Places the specified SLC-96 shelf in the man-made-busy (MMB) state.

Input Command	Description
BUSY SRI PE/CE *b s p* (IMED)	Places the NT4T24 (SRI) pack in the man-made-busy (MMB) state. The IMED option must be used if the SRI pack is the last communication path (signaling loop) to an RLCM. Whenever an SRI pack is busied, the SRI links and DS-30A loops (PELPs) connected to the pack are man-made-busy (MMB), and the LED on the SRI pack faceplate is illuminated.
BUSY SRLK PE/CE *b s p u* (IMED)	Places the SRI link in the MMB state. The IMED option must be used if the SRLK is the last communication path (signaling loop) to an RLCM, RSLE, or an RSLM. Because the SRI links are extensions of the PELPs, busying an SRLK or a PELP busies its associated PELP or SRLK.
BUSY TMC0/TMC1 *site* IDE *b* (IMED)	Places the specified time slot management (TMC) channel in the man-made-busy (MMB) state.
BUSY ULSG *site* UCE *b lsg* (IMED)	Places the specified line subgroup in the man-made-busy (MMB) state.

Input Command	Description
CPME IDC (*site)* LCE/RSC/RSE *b s lsg*	Copies the contents of the active Flash Memory bank into the inactive bank, for the specified ISDN Drawer Controller (IDC). Flash Memory banks (1 and 2) store firmware program code. Under normal conditions the information in each bank is identical. Copying banks may be necessary in situations where the active bank contains the latest firmware version and the inactive bank contains an older version. Normally this command would be used in a three-command sequence. The DNLD IDC command copies the firmware from the file system to the inactive IDC bank. The SWME command switches the active/inactive banks to the opposite status. The CPME command brings both banks to current status. Executing this command requires that the IDC be in an INS or MMB condition.
CPME RLD	Not operational.
DNLD 7X05 *site* SCE *b s* (NEW/ OLD)	Causes the flash memory in the NT7X05 to be erased and then downloaded through its associated SCM-10S or SCM-10U Control Complex. The NT7X05 pack may only be downloaded if the associated SCM-10S, or SCM-10U, Control Complex has completed downloading and is in service. The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.

Input Command	Description
DNLD AX74 MVIE *b s p* (NEW/OLD)	Causes the two EEPROMs of the specified ESMA NTAX74 Cellular Application Processor pack to be downloaded. The NTAX74 pack must already have software loaded and must be in man-made-busy (MMB) state. If the downloading process fails due to an EEPROM problem, a *fault state* will be updated in the ESMC data base; the STAT ESMC command is used to output the fault state information. The fault state is reset only after a successful flash downloading has been achieved. The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.
DNLD CMR MVIE *b s p*/ *site* RSC *b s p* (NEW/OLD)	Causes the specified CLASS Modem Resource pack (NT6X78) to be downloaded. In order for the command to be executed, the ESMA or RSC-S unit with which the NT6X78 pack is associated must be in service. The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.
DNLD DSI CE *b s p* (NEW/OLD)	Causes the Digital Signal Interface (DSI) to be downloaded. In order for the command to be executed, the DSI module must be man-made-busy and a minimum of one DSI link must be assigned. The system response to the command is a pass or fail indication.

Input Command	Description
	The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.
DNLD EDCH MVIE *b s p* (NEW/OLD)	Causes the Enhanced D-Channel Handler (EDCH) to be downloaded. In order for the command to be executed, the EDCH must be man-made-busy. The system response to the command is a pass or fail indication. The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.
DNLD ESAC *site* LCE *b s* (NEW/OLD) or DNLD ESAC *site* RSE *b s p* (NEW/OLD)	Causes the RLCM/OPM/OPAC ESA processor or the RSLM/RSLE ESA processor to be downloaded with executable programs and program control logic. (Static data, such as subscriber information, translations, and emergency routing, is not downloaded by this command but is downloaded when the RTS ESAC command is input.) The ESA processor must be in the MMB state before downloading can take place. The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.

Input Command	Description
DNLD ESMC MVIE *b s p* (NEW/OLD)	Causes the specified ESMA unit and associated CLASS Modem Resource (CMR) pack (NT6X78) to be downloaded. In order for the command to be executed, the ESMA unit must be man-made-busy. The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.
DNLD HUBC *site* HUBE *b s p* (NEW/OLD)	Updates the loadfile in the specified Star Hub Remote Controller (NTTR77) pack. Note: The NTTR77 must be in man-made busy state to be downloaded. The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.
DNLD IDC *(site)* LCE/RSC/RSE *b s lsg* (NEW/OLD)	Causes the firmware code to be downloaded into the IDC pack's (NT6X54) inactive Flash Memory bank. The IDC must be in the man-made-busy (MMB) or the in-service (INS) state before executing the DNLD command. The system response to the DNLD command is a pass (IDC firmware matches the version required for the generic) or fail (firmware does not match the version required for the generic) indication. Refer also to the SWME and CPME commands, which are normally used in conjunction with the DNLD command.

Input Command	Description
	The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.
DNLD LCMC (*site*) LCE/RSC /LCE *b s* (NEW/ OLD)	Causes the LCM control unit (packs NT6X51 and NT6X52) to be downloaded. The LCM must be in the man-made-busy (MMB) state before executing the DNLD command. The system response to the DNLD command is a pass or fail indication. The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.
DNLD MX77 (*site*) RSC *b s p* (NEW/ OLD)	Causes the two EEPROMs of the specified RSC-S NTMX77 Unified Processor pack to be downloaded. The NTMX77 pack must already have software loaded and must be in man-made-busy (MMB) state. If the downloading process fails due to an EEPROM problem, a *fault state* will be updated in the RSC-S data base; the STAT RSCC command is used to output the fault state information. The fault state is reset only after a successful flash downloading has been achieved.

Input Command	Description
	The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.
DNLD RLD	Not operational.
DNLD RMM *site* LCE/RSC *b s* (NEW/OLD)	Causes the random-access memory on the Remote Maintenance Module (RMM) Control pack (NT6X74) to be downloaded. The RMM must be in the man-made-busy (MMB) state before executing the DNLD command. The system response to the DNLD command is a pass or fail indication. The "*s*" in LCE *b s* is always 4 for an RLCM and 1 for an OPM or OPAC. The software package downloads may be optionally specified as NEW, OLD or DFLT. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. DFLT downloads the currently activated software package without distinguishing by date.
DNLD RSCC *site* RSC *b s p* (NEW/OLD)	Causes the Remote Switching Center (RSC-S) control unit to be downloaded. The RSC-S unit must be in the MMB state before downloading can take place. It may take more than 40 minutes to download to the RSC Control Complex. The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.

Input Command	Description
DNLD RSLC *site* RSE *b s p* (NEW/ OLD)	Causes the RSLM/RSLE processor to be downloaded. The RSLM Processor must be in the MMB state before downloading can take place. (*p* may be 5 or7 for RSLM shelves and 5 or 8 for RSLE shelves) The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.
DNLD SCSC *site* SCE *b s* (NEW/ OLD)	Causes the specified SCM-10S Control Complex to be downloaded. Before the DNLD process can begin, the SCM-10S Control Complex must be in the MMB state. The system response to the DNLD command is a pass or fail indication. The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.
DNLD SCUC *site* SCE *b s* (NEW/ OLD)	Causes the specified SCM-10U Control Complex to be downloaded. Before the DNLD process can begin, the SCM-10U Control Complex must be in the MMB state. The system response to the DNLD command is a pass or fail indication. The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.

Input Command	Description
EXIT ESAC *site* LCE *b s* or EXIT ESAC *site* RSE *b s p*	Manual command for the RLCM/OPM/OPAC ESA processor or the RSLM/RSLE ESA processor to initiate the procedure of exiting from the ESA mode.
FELP D1LK SCE *b s p u*	Applies only to a D1LK serving a SLC-96. Sets a far-end loop condition (looparound) on a DS-1 link and automatically switches the protection link for this DS-1 link. This command allows operating company personnel to isolate DS-1 link problems.
LIST DCM *(b s p*) or LIST DCM ALL or LIST DCM *condition*	Lists the specified DCM or all DCMs. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
LIST DS1L *site* RSC/MVIE/HUBE *b s p u* or LIST DS1L ALL or LIST DS1L *condition*	Lists the specified RSC-S, ESMA, or Star Hub P-side DS-1 link. The ALL option causes all RSC-S, ESMA, or Star Hub P-side DS-1 links to display. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy

Input Command	Description
LIST DSI CE *b s p* or LIST DSI ALL or LIST DSI TRK or LIST DSI PRI or LIST DSI *condition*	Lists the specified Digital Signal Interface (DSI), or all DSIs. In the designated location, *p* is the position of the rightmost pack of the DSI module. The TRK option lists all DSI modules that have the digital trunking application. The PRI option lists all DSI modules in the DMS-10 switch that have the PRI application. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
LIST DSLK CE *b s p lk* or LIST DSLK ALL or LIST DSLK TRK or LIST DSLK PRI or LIST DSLK *condition*	Lists the specified Digital Signal Interface (DSI) link or all DSI links. The TRK option lists all DSI links in the DMS-10 switch that have the digital trunking application. The PRI option lists all DSI links in the DMS-10 switch that have the PRI application. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
LIST PSHF *(site)* PE *b s* or LIST PSHF *condition* or LIST PSHF ALL	Lists the peripheral shelf by location or condition, or lists all peripheral shelves. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
OFFL D1LK SCE *b s p u*	Places the specified DS-1 link into the man-made-offline state. The D1LK must be in the MMB state before using the OFFL command. To bring the D1LK back online, busy it, then return it to service.

Input Command	Description
OFFL D1PK SCE *b s p*	Places the specified DS-1 Interface pack into the man-made-offline state. The D1PK must be in the MMB state before using the OFFL command. To bring the D1PK back online, busy it, then return it to service.
OFFL D30L *site* RSC *b s p u*	Places the specified RSC-S P-side DS-30A link on an NTMX74 pack in the man-made-offline state.
OFFL DS1L *site* RSC *b s p u*	Places the specified RSC-S P-side DS-1 link on an NTMX81 pack in the man-made-offline state.
OFFL ESAC *site* LCE *b s* or OFFL ESAC *site* RSE *b s p*	Places the RLCM/OPM/OPAC ESA processor or the RSLM/RSLE ESA processor in the man-made-offline state. The ESA processor must be in the MMB state before using the OFFL command. To bring the ESA processor back online, busy it, then return it to service.
OFFL HUBC *site* HUBE *b s p*	Places the specified Star Hub Remote Controller pack (NTTR77) in the offline state.
OFFL LCMC (*site*) LCE/RSC *b s*	Places the specified LCM control unit (LCMC) into the man-made-offline state. The LCMC (packs NT6X51 and NT6X52) must be in the MMB state before using the OFFL command. To bring the LCMC back online, busy it, then return it to service. The "*s*" in the LCMC location may be either shelf of the LCM.
OFFL RCU *site* UCE *b s*	Places the specified RCU into the man-made-offline state. The RCU must be in the MMB state before the OFFL command can be used.
OFFL RSCC *site* RSC *b s p*	Places the specified Remote Switching Center (RSC-S) unit in the man-made-offline state. The RSCC must be in the MMB state before the OFFL command can be used.

Input Command	Description
OFFL RSLC *site* RSE *b s p*	Places the RSLM/RSLE processor in the man-made-offline state. The RSLM/RSLE processor must be in the MMB state before using the OFFL command. To bring the RSLM/RSLE processor back online, busy it, then return it to service. (*p* may be 5 or 7 for RSLM shelves and 5 or 8 for RSLE shelves)
OFFL SCSC *(site)* SCE *b s*	Places the specified SCM-10S Control Complex (SCSC) into the man-made-offline state. The SCSC must be in the MMB state before using the OFFL command. To bring the SCSC back online, busy it, then return it to service. The *"s*" in the SCSC location may be either shelf of the SLC-96.
OFFL SCUC *(site)* SCE *b s*	Places the specified unit of the SCUC into the man-made-offline state. The SCUC must be in the MMB state before using the OFFL command.
OFFL SLC *site* SLE *b cb*	Places the specified SLC-96 into the man-made-offline state. The SLC-96 must be in the MMB state before using the OFFL command. To bring the SLC-96 back online, busy it, then return it to service.
OFFL SLSH *site* SLE *b cb sh*	Places the specified SLC-96 shelf into the man-made-offline state. The SLSH must be in the MMB state before using the OFFL command. To bring the SLSH back online, busy it, then return it to service.
OFFL SRI PE *b s p*	Places the SRI pack in the man-made-offline state. The SRI must be in the MMB state before the OFFL command is entered.
OFFL SRLK PE/CE *b s p u*	Places the SRI link in the man-made-offline state. The SRLK must first be in the MMB state before the OFFL command is entered. Because the SRLKs are extensions of the PELPs, whenever an SRLK is placed in the MMOF state, the associated PELP is placed in the MMOF state.

Input Command	Description
QPAT ESMC *site* MVIE *b s p*	Queries ESMA patches on the specified ESMC and lists all ESMA patches available.
QPAT RSCC *site* RSC *b s p*	Queries Remote Switching Center (RSC-S) patches on the specified RSCC and lists all RSC-S patches available.
QPAT SCSC *site* SCE *b s*	Queries SCM-10S Control Complex (SCSC) patches on the specified SCSC and lists all SCSC patches available.
QPAT SCUC *site* SCE *b s*	Queries SCM-10U Control Complex (SCUC) patches on the specified SCUC and lists all SCUC patches available.
REMV ESMC *n(n) site* MVIE *b s p*	Removes ESMA patch n(n) from the specified ESMC. In order for the command to be executed, the specified ESMC must be MMB.
REMV RSCC *n(n) site* RSC *b s p*	Removes Remote Switching Center (RSC-S) patch n(n) from the specified RSCC. In order for the command to be executed, the specified RSCC must be MMB.
REMV SCSC *n(n) site* SCE *b s*	Removes SCM-10S Control Complex (SCSC) patch n(n) from the specified SCSC. In order for the command to be executed, the specified SCSC must be MMB.
REMV SCUC *n(n) site* SCE *b s*	Removes SCM-10U Control Complex (SCUC) patch n(n) from the specified SCUC. In order for the command to be executed, the specified SCUC must be MMB.
RFLP D1LK SCE *b s p u*	Applies only to a D1LK serving a SLC-96. Removes the far-end loop condition on a DS-1 link and automatically unswitches the protection link for this DS-1 link. The RFLP command is used in conjunction with the FELP command.

Input Command	Description
RSTR D1LK SCE *b s p u*	Applies only to a D1LK serving a SLC-96. Restores traffic to a primary link that was spared by the protection link.
RTS *device site*/(*site*) *location* (BOOT) (IMED)	Returns to service the man-made-busy (MMB) device. The *site* must be specified for devices at a remote site. When the IMED option applies to devices LSG, LSGD, ULSG, and IDC, it is used to return all SMB or MMB lines in the LSG, LSGD, ULSG or IDC to service. When the IMED option applies to devices SCUC or RCU, the SCUC or RCU will not be tested when returned to service, thus returning the device to service in less time. For the Remote Switching Center (RSC-S) unit, IMED must be used to return a unit with faults to service. For example, if a unit was OOS due to a faulty pack, and the other unit became disabled, IMED would return to service the unit with the faulty pack without completely losing subscriber service. For an IDC, IMED must be used to return the IDC to service when the active flash memory bank does not contain the version required for the generic. For example, before upgrading to a newer generic, use the IMED option to RTS an IDC to service that has the newer generic firmware installed. For a DSI, IMED must be used to return the DSI or RLD to service when the flash download version does not contain the version required for the generic. For example, before upgrading to a newer generic, use the IMED option to RTS an DSI to service that has the newer generic firmware installed.

Input Command	Description
	The BOOT option applies to LCMC and RSLC devices and downloads the pack processor from the mate packs processor instead of from the file system. The BOOT option is not applicable for the VLCM.
STAT BCU *site* LCE *b* or STAT BCU ALL	Gives the status of the Battery Control Unit (BCU) in the Outside Plant Module by location or gives the status of all BCUs. Provides information on the Battery Charge Controller (BCC) packs and battery string pairs (BSPR).
STAT D1LK SCE *b s p u* or STAT D1LK ALL or STAT D1LK *condition*	Gives the status of one or all DS-1 links. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT D1PK SCE *b s p* or STAT D1PK *condition* or STAT D1PK ALL	Gives the status of the DS-1 Interface pack by location or condition, or gives the status of all DS-1 Interface packs. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT D3A CE *b s p* or STAT D3A *condition* or STAT D3A ALL	Gives the status of the DS-30A Interface pack by location or condition, or gives the status of all DS-30A Interface packs. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy

Input Command	Description
STAT D30L *site* RSC *b s p u* or STAT D30L ALL	Gives the status of the specified RSC-S P-side DS-30A link on an NTMX74 pack.
STAT DCM *(site)* PE *b s p* or STAT DCM *condition* or STAT DCM ALL	Gives the status of the Digital Carrier Module (DCM) by location or condition, or gives the status of all DCMs. The "*p*" in PE *b s p* is the leftmost pack of the DCM. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT DS1L *(site)* RSC/MVIE/HUBE *b s p u* or STAT DS1L *condition* or STAT DS1L AT *site* or STAT DS1L ALL	Gives the status of the specified RSC-S or ESMA P-side DS-1 link(s) on an NTMX81 pack, or the status of the specified Star Hub P-side DS-1 link(s) on an NTTR77 pack. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy

Input Command	Description
STAT DSI CE *b s p* or STAT DSI ALL or STAT DSI TRK or STAT DSI PRI or STAT DSI *condition*	Gives the status of the specified Digital Signal Interface module or of all Digital Signal Interface modules in the switch. In the designated location, *p* is the position of the rightmost pack of the module. The TRK option lists all DSI modules that have the digital trunking application. The PRI option lists all DSI modules in the DMS-10 that have the PRI application. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT DSLK CE *b s p lk* or STAT DSLK *condition* or STAT DSLK ALL or STAT DSLK TRK or STAT DSLK PRI	Gives the status of the specified Digital Signal Interface link or of all Digital Signal Interface links in the switch. In the designated location, *p* is the position of the rightmost pack of the module. The TRK option lists all DSI links in the DMS-10 that have the digital trunking application. The PRI option lists all DSI links in the DMS-10 that have the PRI application. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy

Input Command	Description
STAT DTRK (*site*) CE *b s p l u* (DSI digital trunk) or STAT DTRK *(site*) RSC *b s p l u* (RSC-S digital trunk) or STAT DTRK *(site*) PE *b s p u* (DCM digital trunk)	Gives the status of specified digital trunks.
STAT EDCH MVIE *b s p* or STAT EDCH *condition* or STAT EDCH ALL	Gives the status of specified Enhanced D-Channel Handler (EDCH) pack, of all EDCH packs, or EDCH packs in the specified maintenance state. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT ESAC *site* LCE *b s* or STAT ESAC *site* RSE *b s p* or STAT ESAC ALL	Gives the status of the requested ESAC or of all ESACs.
STAT ESMA MVIE *b s* (*unit)* or STAT ESMA ALL	Gives the status of the requested ESMA or of all ESMAs.

Input Command	Description
STAT ESMC MVIE *b s p* or STAT ESMC *condition* or STAT ESMC ALL	Gives the status of the requested ESMC or of all ESMCs. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT HUB *site* HUBE *b s* (CSID) (PSID) or STAT HUB *condition* or STAT HUB ALL (PSID)	Gives the status of both control units of a Star Hub or of all Star Hubs. The CSID option asks for the status of the Star Hub's C-side. The PSID option asks for the status of the Star Hu*condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busyb's P-side.
STAT HUBC *site* HUBE *b s p* (CSID) or STAT HUBC ALL	Gives the status of the specified control unit of a Star Hub or of all Star Hubs. The CSID option asks for the status of the Star Hub's C-side.
STAT IDC (*site*) LCE/RSC/RSE *b s lsg* or STAT IDC *condition* or STAT IDC ALL	Gives the status of the ISDN Controller pack by location or condition, or gives the status of all ISDN Controller packs. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy

Input Command	Description
STAT IDT *site* IDE *b* or STAT IDT *condition* or STAT IDT ALL	Gives the status of the specified Integrated Digital Terminal (IDT) or of all IDTs. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT IDTL *site* IDE *b n* or STAT IDTL *condition* or STAT IDTL ALL	Gives the status of the specified Integrated Digital Terminal line (IDTL). *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT IFPK CE *b s p* or STAT IFPK *condition* or STAT IFPK ALL or STAT IFPK ALL FULL	Gives the status of the Network Interface pack (NT8T04) by location or condition, or gives the status of all DS-30A Interface packs. The FULL option entered along with a particular NT8T04 pack causes the report to include the status of the two on-board Global Tone Service Banks (GTSB), the status of the four DS256 ports, and the peripheral loops (PELP). If preceded by ALL, the FULL option provides this data for all NT8T04 packs. *condition* may be one of: INS in service MMB man-made busy MMOF man-made offline OOS out of service SMB system-made busy SMOF system-made offline

Input Command	Description
STAT ISHF CE *b s* or STAT ISHF CE *b s* FULL or STAT ISHF ALL or STAT ISHF FULL	If the switch is configured with the DMS-10 Classic Network, gives the status of the interface packs (Conference, DS-30A Interface, MLI, TDS) on one or all network shelves. If the switch is configured with the DMS-10EN Network, gives the status of all NT8T04 Network Interface packs on all CNI shelves.
STAT LCM (*site*) LCE/RSC *b s* or STAT LCM ALL	Gives the status of both control units (LCMC) of one or all Line Concentrating Modules (LCMs). The "s" may be either shelf of the LCM.
STAT LCMC *(site)* LCE/RSC *b s* or STAT LCMC *condition* or STAT LCMC ALL	Gives the status of the specified LCM control unit (LCMC) and all loops connected to it by location or condition, or gives the status of all LCMCs. The LCMC consists of packs NT6X51 and NT6X52. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT LPK *(site)* LCE/RSC/RSE *b s lsg l*	Gives the status of the designated line card by location.

Input Command	Description
STAT LRNG *(site)* LCE/RSC/RSE *b u* or STAT LRNG *condition* or STAT LRNG ALL	Gives the status of the Ringing Generator pack by location or condition, or gives the status of all Ringing Generators at both the base DMS-10 switch and at the remote sites. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy The "*u*" is either 1 or 2: LRNG at the base DMS-10 switch: *u* = 1 for the left position in the Frame Supervisory Panel (FSP) *u* = 2 for the right position. LRNG at the remote: *u* = 1 for the LRNG in position 1 of the HIE shelf *u* = 2 for the LRNG in position 5 of the HIE shelf. For an RSLE shelf or an RSLM Type B shelf: *u* = 1 for the left Frame Supervisory Panel (FSP) position *u* = 2 for the right FSP position. For an RSLM Type A shelf: *u* = 1 for "shelf 1"

Input Command	Description
STAT LSG *(site)* LCE/RSC/RSE *b s lsg* (NOLN) or STAT LSG *condition* (NOLN) or STAT LSG ALL (NOLN)	Gives the status of all lines in the designated line subgroup (LSG) by location or condition, or gives the status of all LSGs at the base DMS-10 switch and at the remote site(s). *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT LSGD *(site)* LCE/RSC/RSE *b s lsg* or STAT LSGD ALL	Gives the status of the two subgroups contained in one or all LCM drawers. The *lsg* may be either subgroup in the drawer. The "STAT LSGD ALL" command gives the status of all line subgroups at the base DMS-10 switch and at all remote sites.
STAT LSHF *(site)* LCE/RSC *b s* or STAT LSHF ALL	Gives the status of the LCM control unit (LCMC), the loops connected to it, and all equipped LCM line subgroups on a specified LCM shelf, or of all LCM shelves. The LCMC consists of packs NT6X51 and NT6X52.
STAT LSHF *site* RSE *b s p*	Gives the status of an RSLE or RSLM shelf. *p* may be 5 or 7 (location of the NT9Y14 packs on an RSLM shelf) and 5 or 8 (location of the NT9Y22 packs on an RSLE shelf).
STAT LTRK (*site*) PE *b s p ch* or STAT LTRK ALL	Gives the status of specified line trunks or all line trunks.

Input Command	Description
STAT MLI CE *b s p* or STAT MLI *condition* or STAT MLI ALL	Gives the status of the Multiplex Loop Interface (MLI) pack by location or condition, or gives the status of all MLI packs. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT PELP CE *b s p l* or STAT PELP *condition* or STAT PELP ALL	Gives the status of the peripheral loop by location or condition, or gives the status of all peripheral loops. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT PEPK *(site)* PE *b s p* or STAT PEPK ALL	Gives the status of a specified peripheral pack or of all peripheral packs.
STAT PPS *site* IDE *b*	Gives the status of embedded operations channels (EOC) and timeslot maintenance channels (TMC) of the specified Integrated Digital Terminal (IDT).
STAT PSC2 *(site)* PE *b s*	Gives the status of a specified Peripheral Shelf Converter pack (NT2T42).

Input Command	Description
STAT PSHF *(site)* PE *b s* or STAT PSHF *condition* or STAT PSHF ALL	Gives the status of the peripheral shelf by location or condition, or gives the status of all peripheral shelves. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT RCU *site* UCE *b s* or STAT RCU *condition* or STAT RCU ALL or STAT RCU AST	Gives the status of the RCU by location or condition, or gives the status of all RCUs. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT RCUC *site* UCE *b s* (ALL)	Gives the status of all CE cards in an RCU.
STAT REM *site* PE *b s p* or STAT REM *condition* or STAT REM ALL	Gives the status of the Remote Equipment Module (REM) by location or condition, or gives the status of all REMs. The *p* in PE *b s p* is the leftmost pack of the RCM (that is, position 2, 6, 11, or 15) or position 3, 7, 12, or 16 for the OCM. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT RLD	Not operational.

Input Command	Description
STAT RMM *site* LCE/RSC *b s* or STAT RMM *condition* or STAT RMM ALL	Gives the status of the Remote Maintenance Module (RMM) by location or condition, or gives the status of all RMMs. The *s* in LCE *b s* is always 4 for an RLCM and 1 for an OPM or OPAC. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT RMPK *site* LCE/RSC *b s p* or STAT RMPK ALL	Gives the status of the Remote Maintenance Module (RMM) packs by location or gives the status of all RMM packs.
STAT RSCS *site* RSC *b s* or STAT RSCS *site* RSC *b s* CSID or STAT RSCS *site* RSC *b s* PSID or STAT RSCS *site* RSC *b s* CSPS or STAT RSCS *site* RSC *b s* NODE or STAT RSCS ALL or STAT RSCC *site b s p* or STAT RSCC ALL	Gives the status of the requested RSC-S unit status, units fault list, Cside port status, Pside port status, and RSC-S shelf status.

Input Command	Description
STAT RSLC *site* RSE *b s p* or STAT RSLC *condition* or STAT RSLC ALL	Gives the status of the requested RSLC or of all RSLCs by condition, or of all equipped RSLCs. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT RSLE *site* RSE *b (s)* or STAT RSLE ALL	Gives the status of one or two RSLE Control shelves, depending on whether a shelf number is entered or not, or the status of all equipped RSLEs. If no shelf number is entered, the status of the complete RSLE will be given.
STAT RSLM *site* RSE *b s* or STAT RSLM ALL	Gives the status of the requested RSLM shelf or of all equipped RSLM shelves.
STAT SCS SCE *b s* or STAT SCS ALL	Gives the status of a specified SCM-10S module or of all SCM-10S modules.
STAT SCSC *(site)* SCE *b s* or STAT SCSC *condition* or STAT SCSC ALL	Gives the status of the SCM-10S Control Complex by location or condition, or gives the status of all SCM-10S Control Complexes. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT SCU *(site)* SCE *b s* or STAT SCU ALL	Gives the status of the SCM-10U Control Complex by location, or gives the status of all SCM-10U Control Complexes.

Input Command	Description
STAT SCUC *(site)* SCE *b s* or STAT SCUC *condition* or STAT SCUC ALL	Gives the status of the SCM-10U control complex by location or condition, or gives the status of all SCM-10U control complexes. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT SLC *site* SLE *b cb* or STAT SLC *condition* or STAT SLC ALL	Gives the status of the SLC-96 by location or condition, or gives the status of all SLC-96s. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT SLIN *site* SLE *b cb cu*	Gives the status of the specified SLC-96 subscriber line.
STAT SLPK *site* SLE *b cb cu* or STAT SLPK ALL	Gives the status of a specified SLC-96 Channel Unit pack or of all SLC-96 Channel Unit packs.
STAT SLSH *site* SLE *b cb sh* or STAT SLSH *condition* or STAT SLSH ALL	Gives the status of the SLC-96 shelf by location or condition, or gives the status of all SLC-96 shelves. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT SRI PE/CE *b s p* or STAT SRI ALL	Gives the status of a specified SRI pack or a specified DSI module, and the SRLKs and PELPs that are connected to it, or of all SRI packs or DSI modules.

Input Command	Description
STAT SRLK PE/CE *b s p u* or STAT SRLK *condition* or STAT SRLK ALL	Gives the status of the SRI or the DSI link by location or condition, or gives the status of all SRI or DSI links. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT ULIN *site* UCE *b lsg l* or STAT ULIN ALL	Gives the status of a single subscriber line, or the status of all subscriber lines, connected to an RCU.
STAT ULPK *site* UCE *b lsg l* or STAT ULPK ALL	Gives the status of a single line pack, or the status of all line packs, in an RCU.
STAT ULSG *site* UCE *b lsg* (NOLN) or STAT ULSG *condition* (NOLN) or STAT ULSG ALL (NOLN)	Gives the status of a line subgroup in an RCU by location or condition, or gives the status of all line subgroups in an RCU. *condition* may be one of: INS in service MMB man-made busy OOS out of service SMB system-made busy
STAT USHF *site* UCE *b s*	Gives the status of all CE cards on a specified shelf in an RCU.
SWCH D1LK SCE *b s p u*	Applies only to a D1LK serving a SLC-96. Forces a primary DS-1 link to be spared by the protection link.
SWCH EDCH MVIE *b s p*	Switches an ISDN System Group (ISG) associated with the specified EDCH pack to another EDCH pack.

Input Command	Description
SWCH EOC0/ EOC1 *site* IDE *b* (IMED)	Switches the embedded operations (EOC) channel of the specified IDT from in-service to standby state. If the mate EOC is in man-made busy state, the IMED parameter is required in order for the switch to be performed.
SWCH ESMC MVIE *b s p* (IMED)	Switches activity from from the specified ESMA unit to the standby ESMA unit. In order for the switch to be performed, both ESMA units must be service and the mate unit must be in standby state.
SWCH RCU *site* UCE *b s*	Switches the statuses of the RCU controller (that is, the in-service active controller becomes the in-service standby controller, and the in-service standby controller becomes the in-service active controller).
SWCH RSCC *site* RSC *b s p* (IMED)	Switches the statuses of the specified RSC-S unit. The SWCH can be performed only on the active unit; both units must be in service and the mate unit must be in standby mode. If only a cold SWCH is permitted, the IMED parameter must be used.
SWCH SCSC *(site)* SCE *b s* (IMED)	Switches the statuses of the SCM-10S control complexes (that is, the in-service active controller becomes the in-service standby controller, and the in-service standby controller becomes the in-service active controller). The *s* in SCE *b s* is the shelf of the currently active controller. The IMED parameter enables a switch to the standby controller to occur without a pre-Swact query taking place.

Input Command	Description
SWCH SCUC *(site)* SCE *b s* (IMED)	Switches the statuses of the SCM-10U control complexes (that is, the in-service active controller becomes the in-service standby controller, and the in-service standby controller becomes the in-service active controller). The *s* in SCE *b s* is the shelf of the currently active controller. The IMED parameter enables a switch to the standby controller to occur without a pre-Swact query taking place.
SWCH TMC0/ TMC1 *site* IDE *b* (IMED)	Switches the time slot management (TMC) channel of the specified IDT from in-service to standby state. If the mate TMC is in man-made busy state, the IMED parameter is required in order for the switch to be performed.
SWME IDC *(site)* LCE/RSC/RSE *b s lsg*	Switches the inactive Flash Memory bank status to active status, and the active bank to inactive status, for the specified IDC. Flash Memory banks (1 and 2) store firmware program code. Under normal conditions the information in each bank is identical. Switching banks may be necessary if the code in the active bank is destroyed or to allow the IDC to execute a specific firmware version. Refer also to the DNLD IDC and CPME IDC commands, which are normally used in conjunction with the SWME command. Executing this command requires that the IDC be in an MMB condition.
SWME RLD	Not operational.
TEST ALL	Performs one test cycle of Overlay DED. (Does not include testing of PSC2).
TEST D1LK SCE *b s p u* (REP *n*) or TEST D1LK ALL	Tests the specified DS-1 link or all DS-1 links.

Input Command	Description
TEST D1PK SCE *b s p* (REP *n*) or TEST D1PK ALL	Tests the specified DS-1 Interface pack or all DS-1 Interface packs.
TEST D30L *site* RSC *b s p u* (REP *n*) or TEST D30L ALL	Tests the specified RSC-S P-side DS-30A link on an NTMX74 pack.
TEST DCM *(site)* PE *b s p* (REP *n*) or TEST DCM ALL (REP *n*)	Tests a specified Digital Carrier Module (DCM) or all DCMs. The *p* in PE *b s p* is the leftmost pack of the DCM. If the DCM is in the interactive mode, the DCM must be man-made-busy before any manual testing can be performed. If the DCM is in the free-running mode (background), a continuity test and signaling test are performed. If a system-made-busy (SMB) DCM passes the tests, it will be returned to service. In-service DCMs that do not pass the tests will be made SMB. When a SMB DCM that is attached to a DLC in a Large Cluster Controller (LCC) is returned to service, Overlay DED will attempt to set the bits in the DCM to allow data transfer. If these bits cannot be set, the DCM will remain SMB.
TEST DS1L *site* RSC/MVIE/HUBE *b s p u* (REP *n*) or TEST DS1L ALL	Tests the specified RSC-S or ESMA P-side DS-1 link on an NTMX81 pack, or tests the specified Star Hub P-side DS-1 link on an NTTR77 pack. When the ALL option is entered, all of the DS-1 links are tested. The DSI must be man-made-busy before any manual testing can be performed.

Input Command	Description
TEST DSI CE *b s p* or TEST DSI ALL (REP *n*)	Tests the specified Digital Signal Interface module or all Digital Signal Interface modules in the switch. In the designated location, *p* is the position of the rightmost pack of the module.
TEST DSLK CE *b s p lk* or TEST DSLK ALL (REP *n*)	Tests the specified Digital Signal Interface link or all Digital Signal Interface links in the switch. In the designated location, *p* is the position of the rightmost pack of the module.
TEST EDCH MVIE *b s p* or TEST EDCH ALL (REP *n*)	Tests the specified Enhanced D-Channel Handler (EDCH) pack or all EDCH packs.
TEST ESMC MVIE *b s p* (ROM) or TEST ESMC ALL (REP *n*)	Tests the specified ESMA control unit or all ESMA control units. The ROM option specifies that only the ROM partial will be performed during the unit's test. The unit must be man-made busy and loaded.
TEST ESAC *site* RSE *b s p* (REP *n*) or TEST ESAC *site* LCE *b s* (REP *n*) or TEST ESAC ALL (REP *n*)	Tests the specified ESA processor or tests all ESA processors.
TEST HUB *site* HUBE *b s*	Tests both Star Hub Remote Controller packs (NTTR77).

Input Command	Description
TEST HUBC *site* HUBE *b s p* or TEST HUBC *site* HUBE *b s p* (REP *n*) or TEST HUBC ALL (REP *n*)	Tests the specified Star Hub Remote Controller pack (NTTR77).
TEST IDC *(site)* LCE/RSC/RSE *b s lsg* (REP *n*) or TEST IDC ALL (REP *n*)	Tests the specified ISDN Drawer Controller. This command requires that the IDC is in an INS or MMB state, and not in an indirect state. A range of tests are performed, with service interrupting tests performed only when the IDC is in an MMB state.
TEST LCM *(site)* LCE/RSC *b s* (LSGL) (REP *n*)	Tests both LCM control units that make up a specified LCM or all LCMs. The *s* in LCE/RSC *b s* can be either shelf of the LCM. The Processor, Digroup Control card, Bus Interface card, Ringing Generator, and line card communication tests are performed. If DED finds a failure while running in the free-running (automatic) mode, the failed device is placed in the system-made-busy state. The LSGL option limits the testing to the subgroups and the lines. Only the Bus Interface card and line card communication tests are performed.

Input Command	Description
TEST LCMC *(site)* LCE/RSC *b s* (LSGL) (REP *n*) or TEST LCMC (LSGL) ALL (REP *n*)	Tests the specified LCM control unit (packs NT6X51 and NT6X52) or all LCM control units. The Processor, Digroup Control card, Bus Interface card, Ringing Generator, and line card communication tests are performed. If DED finds a failure while running in the free-running (automatic) mode, the failed device is placed in the system-made-busy state. The LSGL option limits the testing to the subgroups and the lines. Only the Bus Interface card and line card communication tests are performed.
TEST LRNG *(site)* LCE/RSC/RSE *b u* (REP *n*) or TEST LRNG ALL (REP *n*)	Tests the specified Ringing Generator pack or all Ringing Generator packs. If the LCM reports a failed Ringing Generator while in the interactive (manual) mode, a maintenance-terminal error message is output. If an error is reported while in the free-running mode, the Ringing Generator is placed in the system-made-offline state.
TEST LRNG *site* RSE *b u* (REP *n*)	Tests the specified RSLE/RSLM/OPSM Ringing Generator pack. If a failed Ringing Generator is reported while in the interactive (manual) mode, a maintenance-terminal error message is output. If an error is reported while in the free-running state, the Ringing Generator is placed in the system-made-offline mode.
TEST LSG *(site)* LCE/RSC *b s p*	Tests the specified Line Subgroup (LSG).
TEST PSC2 *(site)* PE *b s* (REP *n*)	Verifies that the specified PE shelf is a dual PE shelf with a mate. Tests power on both shelves, and transfers and restores power.

Input Command	Description
TEST PSHF *(site)* PE *b s* (REP *n*) or TEST PSHF ALL (REP *n*)	Tests the specified PE shelf or all PE shelves. A PE shelf is not taken out of service if faults are found.
TEST RCU *site* UCE *b s* (REP *n*) (FULL) or TEST RCU ALL (REP *n*)	Tests either the specified RCU controller or the specified RCU controller and all ULINs (FULL option). If the RCU is equipped with EAST, the FULL option initiates automatic line CKT testing.
TEST REM *site* PE *b s p* (REP *n*) or TEST REM ALL (REP *n*)	Tests the specified Remote Equipment Module (REM) or all REMs. The *p* in PE *b s p* is the leftmost pack of the RCM (that is, position 2, 6, 11, or 15) or position 3, 7, 12, or 16 for the OCM. The site option must be specified for RCMs. If the REM is in the free-running mode (background), a continuity test and signaling test are performed. If the RCM is in the interactive mode, the RCM must be man-made-busy before any manual testing can be performed.
TEST RLD	Not operational.
TEST RMM *site* LCE/RSC *b s* (REP *n*) or TEST RMM ALL (REP *n*)	Tests the specified Remote Maintenance Module (RMM) or all RMMs. The RMM must be either in-service (INS) or man-made-busy (MMB) and not in indirect (INDR) state before a manual test may be performed. Memory, checksum and invalid trunk interrupt tests are performed. A message is output to indicate either that the tests passed, that one or more of the tests failed, or a timeout occurred before the RMM responded to a test. If the RMM fails the test and is in a MMB state, additional memory, timer, interrupt, and trunk tests are performed.

Input Command	Description
	The RMM must be either INS or system-made-busy (SMB) before a free-running (background) test may be performed. If the RMM is INS and fails the test, it will be removed from service (placed in SMB state). If the RMM is SMB and passes the test, it will be returned to service (placed in INS state).
TEST RSCC *site* RSC *b s p* (REP *n*) (ROM) or TEST RSCC ALL (REP *n*)	Tests the specified Remote Switching Center (RSC-S) unit or tests all RSC-S units. For an out-of-service test, the unit must be in MMB state. For an in-service test, the unit must be in INSV state. The ROM option specifies that only the ROM partial will be performed during the unit's test. The unit must be man-made busy and loaded.
TEST RSLC *site* RSE *b s p* (REP *n*) or TEST RSLC ALL (REP *n*)	Tests the specified RSLE/RSLM processor or tests all equipped RSLE/RSLM processors.
TEST RSLE *site* RSE *b (s)* (REP *n*)	Tests the RSLCs of the RSLE shelf. If a shelf is not specified, then all RSLCs in that bay will be tested.
TEST RSLM *site* RSE *b s* (REP *n*)	Tests the RSLM shelf processor.
TEST SCSC *site* SCE *b s* (REP *n*) or TEST SCSC ALL (REP *n*)	Tests the specified SCM-10S Control Complex or all SCM-10S Control Complexes.

Input Command	Description
TEST SCUC *site* SCE *b s* (REP *n*) or TEST SCUC ALL (REP *n*)	Tests the specified SCM-10U controller.
TEST SLC *site* SLE *b cb* (REP *n*) or TEST SLC ALL (REP *n*)	Tests the specified SLC-96 or all SLC-96s.
TEST SRI PE *b s p* (REP *n*)	Performs the following tests on both SRLKs on the SRI pack: response test, DS-30A to SRI looparound, and remote alarm test. Before testing the SRI pack, ensure that the SRI pack and the DS-30A loops connected to the SRI pack are in service (INS).
TEST SRLK PE *b s p u* (REP *n*) or TEST SRLK ALL (REP *n*)	Performs the following tests on the SRI link: response test, DS-30A to SRI looparound, and remote alarm test. Before testing the SRI link, ensure that the DS-30A loop controlling the SRLK being tested is INS. If the SRLK being tested is INS, only the response test is performed. If the SRLK is MMB, the response test, looparound, and remote tests are performed.
TFLP D1LK SCE *b s p u* (REP *n*)	Applies only to a D1LK serving a SLC-96. This command, which is entered after the FELP command, runs a continuity test on the DS-1 link in the far-end condition (looparound).
UBLK D1LK SCE *b s p u*	Applies only to a D1LK serving a SLC-96. Allows the protection link to spare a designated primary link. If the primary link being unblocked is faulty and the protection link is available, traffic is switched from the primary link to the protection link.

Input Command	Description
UBLK EOC0/ EOC1 *site* IDE *b*	Removes the blocking of the embedded operations (EOC) channel of the specified IDT from being switched and becoming the active EOC channel.
UBLK TMC0/ TMC1 *site* IDE *b*	Removes the blocking of the time slot management (TMC) channel of the specified IDT from being switched and becoming the active TMC channel.
VERS AX74 MVIE *b s p*	Reports the version of the ROM load resident on the specified Cellular Application Processor (CAP) pack or on all CAP packs.
VERS CMR MVIE *b s p*	Reports the version of the firmware load resident on the specified CLASS Modem Resource (CMR) pack (NT6X78).
VERS CMR *site* RSC *b s p*	Reports the version of the firmware load resident on the specified CLASS Modem Resource (CMR) pack (NT6X78).
VERS DSI CE *b s p* or VERS DSI ALL	Reports the version of the firmware resident on the NT4T24, Span Interface Controller pack or the NT4T50, CALEA Dialed Digit Extraction (DDE) pack.
VERS EDCH MVIE *b s p* or VERS EDCH ALL	Reports the version of the firmware resident on the NTBX02, Enhanced D-Channel Handler (EDCH) pack.
VERS ESMC MVIE *b s p* or VERS ESMC ALL	Reports the version of the RAM load resident on the specified ESMA unit or on all ESMA units.
VERS HUBC *site* HUBE *b s p*	Reports the version of the loadfile resident on the specified Star Hub Remote Controller (NTTR77) pack.

Input Command	Description
VERS IDC *(site)* LCE/RSC/RSE *b s lsg* or VERS IDC ALL	Reports the version of the current downloadable firmware code, for both FLASH memory banks, either in the specified ISDN Drawer Controller (IDC) or for all IDCs in all LCMs. Executing this command requires that the IDC be in an INS or MMB condition and not in an indirect state. The site must be specified for devices at a remote location.
VERS LCM/LCMC *(site)* LCE *b s* or VERS LCM/LCMC ALL	Reports the version of the current download either in the specified Line Concentrating Module (LCM) or in LCM control units in all the LCMs. The site must be specified for devices at a remote site.
VERS MX77 *(site)* RSC *b s p*	Reports the version and the issue of the two EEPROMs on the NTMX77 Unified Processor pack, and the value stored in the DMS-10 SYSDATA table.
VERS RLD	Not operational.
VERS RSCC *site* RSC *b s p* or VERS RSCC ALL	Reports the version of the download file stored in the RSC-S control unit. The RSC-S control unit must be in service in order for the command to be issued.
VERS RSLC *site* RSE *b s p* or VERS RSLC ALL	Reports the version of the download file stored in the RSLE or RSLM processor. The RSLE or RSLM processor must be in service in order for the command to be issued.
VERS SCSC *site* SCE *b s*	Reports the version of the download file stored in the SCM-10S control unit and in each associated NT7X05 Flash Memory card.
VERS SCUC *site* SCE *b s*	Reports the version of the download file stored in the SCM-10U control unit and in each associated NT7X05 Flash Memory card.

8: Manual Download

Overlay DNLD provides the facility to transfer software from cartridge tape to the Peripheral Processor pack (NT2T46).

Input Command	Description
?	Queries the system for valid input
DNLD *(site)* PE *b s p* (NEW OLD)	Transfers software from the file system to the microprocessor on the Peripheral Processor pack (NT2T46). Successful downloading is indicated by the output message DLD001. Software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.

9: ESA Processor Download

Overlay EPD updates subscriber line information so that when a remote enters the ESA mode, the line will maintain all current relevant data.

Input Command	Description
####	Interrupts any maintenance-terminal output, stops execution of the current command, and places the maintenance terminal in input mode. Response is the prompt character >.
****	Interrupts any maintenance-terminal output and aborts the overlay program. Response is the prompt character #.
?	Queries the system for valid input. Can be used with any command.
STAT *site location* or STAT ALL	Gives the status of the specified ESA pack or of all ESA packs. *location* can be one of: *site* LCE *b* 3 RLCM ESA pack *site* LCE *b* 1 OPM ESA pack *site* RSE *b* 3 14RSLE ESA pack *site* RSE *b s* 3RSLM ESA pack (the shelf may be 1 or 2) *site* LCE *b* 1 OPAC ESA pack

Input Command	Description
	site RSC *b s p* RSC-S controller *site* HUBE *b s p* Star Hub controller
UPDT *site location* or UPDT ALL	Downloads static data, such as subscriber information, translations, and emergency routing, to the specified ESA processor or to all ESA processors. *location* can be one of: *site* LCE *b* 3 RLCM ESA pack *site* LCE *b* 1 OPM ESA pack *site* RSE *b* 3 14 RSLE ESA pack *site* RSE *b s* 3 RSLM ESA pack (the shelf may be 1 or 2) *site* LCE *b* 1 OPAC ESA pack *site* RSC *b s p* RSC-S controller *site* HUBE *b s p* Star Hub controller

10: Input/Output Device Diagnostic

Overlay IOD is used to test maintenance terminals, disk drives, magneto-optical drives, Data Link Controller (DLC) packs, and Input/Output Interface (IOI) packs.

Input Command	Description
####	Interrupts any maintenance-terminal output, aborts execution of the current command, and places the maintenance terminal in the input mode. Response is the prompt character >.
****	Interrupts any maintenance-terminal output and aborts the overlay program. Response is the prompt character #.
?	Queries the system for valid input. Can be used with any command.
BKUP *from device* *to device*	Copies contents of a *from device* to *to device*, overwriting any data stored on *to device*.
CLR DISP	Sets active CPU display to blank.
CLR MAJ	Clears major system-detected alarms.
CLR MIN	Clears minor system-detected alarms.

Input Command	Description
EJCT *device*	Ejects the media from the specified removable-media device (MO0). Note: This is the recommended method for removing magneto-optical disks from the magneto-optical drive (NT4T32BA). Thus, it is strongly recommended that the manual eject button present on some NT4T32s not be used for this purpose.
ENBL/DSBL ALRM	Enables/disables the extended alarm interface port to the extended alarm device.
ENBL/DSBL DAS	Enables/disables digital alarm scanner (DAS).
ENBL/DSBL DLC *n* (IMED)	Enables/disables Data Link Controller *n,* where *n* is the number of the associated Data Link Controller (0 through 15).
ENBL/DSBL DLNK *n n* (IMED)	Enables/disables Data Link *n*, where the first *n* equals the number of the associated Data Link Controller (0 through 15) and the second *n* equals the number of the Link (0 or 1).
ENBL IOI /DSBL IOI	The ENBL command enables the SCSI Bus I/O and Disk Drive pack (NT8T90) on the active CPU shelf and all attached devices (for example, HD0, HD1, or MO0) which are determined to be free of faults and which were not manually disabled prior to the SCSI Bus I/O and Disk Drive pack being disabled.

Input Command	Description
	The DSBL command disables the SCSI Bus I/O and Disk Drive pack (NT8T90) on the active CPU shelf and all attached devices (for example, HD0, HD1, or MO0). It is strongly recommended that this command be executed prior to initiating a controlled system initialization or reload, to reduce the the possibility of data loss or corruption. In addition, this command MUST be executed prior to the removal of the NT8T90 from the active CPU shelf, to avoid an uncontrolled system initialization. CAUTION: Disabling the active NT8T90 pack robs the system of all disk access. Under some circumstances this may result in loss of critical office or billing data. Thus, rather than disabling the NT8T90 while it is active state, the pack should be made inactive through the SWCH CORE command in Overlay CED, which forces the currently-inactive NT8T90 pack to take control of the disk subsystem.
ENBL *device* / DSBL *device* (IMED)	The ENBL *device* command enables the specified disk device attached to the SCSI Bus I/O and Disk Drive pack (NT8T90) on the active CPU shelf (for example, HD0, HD1, or MO0). Attached disk devices may include hard disk drives (HD0 or HD1) and magneto-optical disk drives (MO0). If no other disk device is enabled when this command is executed (see STAT IOI command), the specified device becomes the primary (PRIM) disk device. Commands that access data on disk but do not allow a disk to be specified will use the PRIM disk unless otherwise noted. If another disk is already PRIM, the specified device becomes a secondary (SEC) disk device.

Input Command	Description
	CAUTION: After being enabled, a disk is available for asynchronous, simultaneous reads and writes by any process within the system. Thus, a disk device MUST NOT be powered down, removed, or (in the case of a magneto-optical drive) have its media manually ejected, while it is enabled. Any of these events will be treated as a hardware failure and resulting recovery action may include a system initialization. The DSBL *device* command disables the specified disk device attached to the SCSI Bus I/O and Disk Drive pack (NT8T90) on the active CPU shelf (for example, HD0, HD1, or MO0). The command must be used prior to the device being powered down and removed unless the device resides on the active NT8T90 (HD0 or HD1), in which case the DSBL IOI IMED command must be used. If the specified device is currently in use by the system, the DSBL *device* command will fail. If a forcible disable is necessary, the IMED option may be used. If the device is currently the primary (PRIM) disk device, the DSBL command will only execute if the IMED option is used, since disabling the PRIM device forces all disk devices to be disabled. Thus, it is strongly recommended that another PRIM device be selected and enabled (see the ENBL *device* command) as soon as possible in order to restore system disk access.
ENBL/DSBL SMDI *n(n)*	Enables/disables the SMDI port *n(n)* (0-31).
ENBL/DSBL TTY *n(n)*	Enables/disables maintenance terminal (TTY) or telnet logical unit, where: *n(n)* is the maintenance terminal number or telnet logical unit number (0-31).

Input Command	Description
FRMT *device*	Formats the specified disk device attached to the SCSI Bus I/O and Disk Drive pack (NT8T90) on the active CPU shelf (for example, HD0, HD1, or MO0). Prior to starting a FRMT, the specified device must be disabled. Formatting prepares a disk for use by detecting and taking out of service any faulty areas, and installing a label with information about disk size and partition layout. If a FRMT command fails, or if the system initializes while a FRMT is in progress, the device being formatted will be left disabled in the FRMT REQD state. If a format is successful, the formatted device will be left disabled in the BKUP REQD state (see STAT IOI command). In general, the FRMT command only needs to be used when suggested by the system through STAT IOI or error messages. CAUTION: This command requires extreme caution. It irrevocably destroys all data stored on the disk.
GO	Tests all maintenance terminals for response only, and tests the IOI-related packs (NT3T09, NT3T80, NT8T90), the IOI device on Bus A, and the IOI device on Bus B, if equipped.
STAT ALRM	Gives the status of the extended alarm interface port. The response is in the form: CE b s p pt ALRM ENBL CE b s p pt ALRM DSBL
STAT DAS	Gives the status of the digital alarm scanner (DAS).

Input Command	Description
STAT DLC (*n(n)*)	Gives the status of Data Link Controller *n(n)* (or all DLCs if no number is input) and its/their Data Links (DLNKs). *n(n)* is the number of the associated Data Link Controller (0 through 15). Valid only for HSO/SSO and LCC/SSO cluster configurations.
STAT IOI	Gives the status of the disk subsystem, which includes the SCSI Bus I/O and Disk Drive pack (NT8T90) on the active CPU shelf, as well as all attached disk devices (for example, HD0, HD1, or MO0).
STAT SMDI	Gives the status of all SMDI ports.
STAT TTY	Lists the status of all maintenance terminals and the associated electronics in the system, including the Dual Integrated Modem pack.
TEST ALRM	Test the extended alarm interface port plus the extended alarm device.
TEST DAS	Tests digital alarm scanner (DAS).
TEST DLC *n(n)*	Tests Data Link Controller *n*, where *n* is the number of the associated Data Link Controller (0 through 15).
TEST DLNK *n(n) n*	Tests Data Link *n,* where *n(n)* equals the number of the associated Data Link Controller (0 through 15) and *n* equals the number of the Link (0 or 1).
TEST IOI	Tests the SCSI Bus I/O and Disk Drive pack (NT8T90) on the active CPU shelf.
TEST *device*	Tests the specified disk device attached to the SCSI Bus I/O and Disk Drive pack (NT8T90) on the active CPU shelf (for example, HD0, HD1, or MO0).
TEST SMDI *n*	Tests the DSDI pack and the SMDI port *n* (0-31).

Input Command	Description
TEST TTY *n(n)* (MODM)	Tests the maintenance terminal *n(n)* (0-31) and the associated electronics, including the Serial Data Interface pack and the Dual Integrated Modem pack, where MODM is the option to test the modem processor only.

11: LAN Equipment Diagnostic

The LAN equipment diagnostic tests the following:

- Local Area Network (LAN) equipment
- Messaging (LAN) shelf
- LAN/CPU Interface (LCI) packs
- LAN Shelf Controller (LSC) packs
- LAN Application Controller (LAC) packs

In free running mode, the program tests and automatically disables any LAN equipment found faulty, switching LAN activity if the standby LAN is fault-free. If the standby LAN is not fault-free, the program attempts to correct the fault condition by downloading to the faulty equipment and returning it to service.

Command	Result
####	Interrupts any maintenance-terminal output, stops execution of the current command, and places the maintenance terminal in input mode. System response is the character >.

Command	Result
****	Interrupts any maintenance terminal output, stops execution of the current command, aborts the overlay program, and places the maintenance terminal in input mode. System response is the prompt character #.
?	Queries the system for valid input. Can be used with any command.
BUSY LAC CE/PE *b s p* (IMED)	Places the specified LAC pack in the man-made-busy (MMB) state.
BUSY LCI CE *b s p* (IMED)	Places the specified LCI pack in the man-made-busy (MMB) state.
BUSY LSC CE/PE *b s p* (IMED)	Places the specified LSC pack in the man-made-busy (MMB) state.

Note: For the following DNLD commands, the software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.

DNLD LAC CE/PE *b s p* (NEW/OLD)	Downloads the specified LAC pack with SAE operating system and application from the file system.
DNLD LCI CE *b s p* (NEW/OLD)	Downloads the specified LCI pack with the SAE operating system from the file system.
DNLD LSC CE/PE *b s p* (NEW/OLD)	Downloads the specified LSC pack with the SAE operating system from the file system.
OFFL LAC CE/PE *b s p*	Places the specified LAC pack in the man-made-offline (OFFL) state.
OFFL LCI CE *b s p*	Places the specified LCI pack in the man-made-offline (OFFL) state.
OFFL LSC CE/PE *b s p*	Places the specified LSC pack in the man-made-offline (OFFL) state.
RTS LAC CE/PE *b s p*	Returns a man-made-busy (MMB) LAC pack to service.

Command	Result
RTS LCI CE *b s p*	Returns the specified man-made-busy (MMB) LCI pack to service.
RTS LSC CE/PE *b s p*	Returns a man-made-busy (MMB) LSC pack to service.
STAT LAC CE/PE *b s p* or STAT LAC ALL *condition* or STAT LAC ALL	Gives the status of the LAC pack(s) specified by location or condition, or gives the status of all LCI packs *condition* is one of: INS in service MMB man-made busy MMOF man-made offline OOS out of service SMB system-made busy SMOF system-made offline
STAT LAN	Gives the location and status of all LAN equipment in the office.
STAT LCI CE *b s p* or STAT LCI ALL *condition* or STAT LCI ALL	Gives the status of the LCI pack(s) specified by position or condition, or gives the status of all LCI packs. *condition* is one of: INS in service MMB man-made busy MMOF man-made offline OOS out of service SMB system-made busy SMOF system-made offline

Command	Result
STAT LSC CE/PE *b s p* or STAT LSC ALL *condition* or STAT LSC ALL	Gives the status of the LSC pack(s) specified by location or condition, or gives the status of all LSC packs. *condition* is one of: INS in service MMB man-made busy MMOFman-made offline OOS out of service SMB system-made busy SMOF system-made offline.
STAT LSHF CE/PE *b s* or STAT LSHF ALL	Gives the status of all LAN equipment on the specified Messaging (LAN) shelf or on all Messaging shelves.
SWCH LAN (IMED)	Switches the activity of the active LAN to the mate LAN. The active LAN CPU Interface (LCI) and LAN Shelf Controller (LSC) packs are put on standby and the mate LCI and LSC are made active.
TEST LAC CE/PE *b s p* (LPL / LPR) (REP *n*) or TEST LAC ALL	Tests the specified LAC pack or tests all LAC packs. A LAC pack is not taken out of service if faults are found. The LPL option specifies that a local loopback test be performed on the link transmission equipment associated with the LAC pack. The LPR option specifies that a remote (far-end) loopback test be performed on the link transmission equipment associated with the LAC pack. The LPL and LPR options are valid only for SNL (L2) LAC packs with a maintenance status of man-made-busy (MMB). The loopback tests can be performed only if the link transmission equipment associated with the SNL LAC supports loopback functionality.
TEST LAN (REP *n*)	Tests all LAN equipment in the office.

Command	Result
TEST LCI CE *b s p* (REP *n*) or TEST LCI ALL (REP *n*)	Tests the specified LCI pack or all LCI packs.
TEST LSC CE/PE *b s p* (REP *n*) or TEST LSC ALL (REP *n*)	Tests the specified LSC pack or all LSC packs.
VERS LAN	Gives the version of SAE operating system downloaded in the LAC, LCI, and LSC packs associated with all of the LAN shelves. In addition, the application software version is displayed for LAC packs.
VERS LAC CE/PE *b s p* or VERS LAC ALL	Gives the version of SAE operating system and application software downloaded either in the specified LAC pack or in all LAC packs.
VERS LCI CE *b s p* or VERS LCI ALL	Gives the version of SAE operating system downloaded either in the specified LCI pack or in all LCI packs.
VERS LSC CE/PE *b s p* or VERS LSC ALL	Gives the version of SAE operating system downloaded either in the specified LSC pack or in all LSC packs.

12: Line Insulation Testing

Overlay LIT allows the craftsperson to change the parameters set for the LIT section in Overlay CNFG, to query Overlay LIT, and to activate the overlay for testing. LIT, as specified in Overlay CNFG or as described in the NTP, is used to detect faults in subscriber loops.

Input Command	Description
####	Interrupts any maintenance-terminal output, stops execution of the current command, and places the maintenance terminal in input mode. Response is the prompt character >.
****	Interrupts any maintenance-terminal output and aborts the overlay program. Response is the prompt character #.
?	Queries the system for valid input. Can be used with any command.
HAZ *(nnn) nnn nnnn* PE/LCE/ RSE/RSC *b s card/*lsg *u/l* ON/ OFF	Causes the specified line to be marked as hazardous, or removes the hazardous marking from the line.
LHT *(nnn) nnn nnnn* PE/LCE/ RSE/RSC *b s card/*lsg *u/l*	Causes a line hazard test to be performed on the specified line. If the line is already marked as hazardous, then the HAZ OFF command must be entered before the line can be manually tested.

Input Command	Description
PARM *(site) command*	Allows operating company personnel to change the line insulation testing parameters that are specified in Overlay CNFG. These changes are for manual testing only and do not apply to automatic testing. The changes are deleted from the system when operating company personnel abort Overlay LIT. The system parameters return to the default values when the overlay is reloaded. *site* is the mnemonic of the site for which the parameters are being changed. *command* can be one of: LIT *n* change line insulation test to run ACVR *V* change ac voltage reference DCVR *V* change dc voltage reference RESR *n* change resistance sensitivity MBSR change MBS resistance sensitivity EXFC *x* change failure codes to exclude from reporting
QUE *option (site)*	Allows operating company personnel to query a specific option. *option* may be one of: *abc defg* directory number LKOT all directory numbers that are in LOCKOUT PARM line insulation test parameters

Input Command	Description
RTST	Allows operating company personnel to retest all directory numbers that failed the last automatic LIT test and were stored by the automatic reporting section of the overlay.
STAT *type of test*	Provides a summary of the test results for either the last cycle of the automatic reporting from the overlay or the last cycle of the manual TEST command. *type of test* can be one of: AUTO Automatic test MAN Manual test.
TEST *number* (REP *n*) or TEST PE/LCE/ RSE/RSC/HUBE/ IDE *b s card/l*sg *u/l* (REP *n*)	Allows operating company personnel to run the LIT test against a single directory number. The resulting output provides the usual line insulation test results plus precise measurements of the electrical characteristics of the directory number. *number* is a directory number in the form abc defg. *number* is either a seven- or ten-digit number in the form npa abc defg, when the Duplicated NXX feature is configured; *number* must be ten-digits long if the abc d digits have more than one associated HNPA.

13: Microprocessor Download

Overlay MPD provides the facility to transfer software from cartridge tape to the ac Tester (ACT) or Peripheral Maintenance System (PMS).

Input Command	Description
?	Queries the system for valid input. Can be used with any command.

Note: For the following DNLD commands, the software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.

DNLD ACT (*site*) (NEW/OLD)	Transfers software from the file system to the ACT. Successful downloading is indicated by the output message MPD001.
DNLD PMS (*site*) (NEW/OLD)	Transfers software from the file system to the PMS. Successful downloading is indicated by the output message MPD001. The PMS must be downloaded at a REM site during a very low-traffic period. Otherwise, traffic flow through the span lines will overflow, causing alarm messages to be printed and REMs to be system-made-busy (SMB).

14: Magnetic Tape Diagnostic

Overlay MTD tests all enabled Automatic Message Accounting (AMA) or utility magnetic tape units (MTUs) and the hardware listed below. The following hardware is tested for the 800-BPI AMA system:

- The Magnetic Tape Controller (MTC) pack (NT3T10)
- The Magnetic Tape Interface pack (NT3T11) (housed in the MTU)
- The cable (including paddleboard) connecting these pieces of equipment.
- The following hardware is tested for the 1600-BPI AMA system:
- The Input/Output Interface (IOI) pack (NT3T90)
- The disk drive
- The cables connecting the IOI packs, disk drives, and MTU.

Input Command	Description
####	Interrupts any maintenance-terminal output, stops execution of the current command, and places the maintenance terminal in input mode. Response is the prompt character >.
****	Interrupts any maintenance-terminal output and aborts the overlay program. Response is the prompt character #.
?	Queries the system for valid input. Can be used with any command.
AMA COPY (HDR / NHR2 / NEXP)	Applies only to the 1600-bpi AMA system. Copies billing data from the disk drive on Bus B (Bus A will be used if there is a fault on Bus B) to the AMA tape. Places the indicated header(s) on the tape. The “HDR” option specifies that all standard labels (headers) will be placed on the AMA tape. The “NHR2" option specifies that the AMA tape does not contain an HDR2 label. The DMS-10 switch will generate the HDR2 label and put it on the tape after the HDR1 label. The “NEXP” option specifies that the DMS-10 switch will not validate the expiration date on the tape.
AMA RLSE	Applies only to the 1600-bpi AMA system. Dumps billing data from the DMS-10 switch buffer onto the disk drives, and dumps all the billing data from the disk drive on Bus B (Bus A will be used if there is a fault on Bus B) to the AMA tape. Places the appropriate trailer information onto the AMA tape, and places the tape in the released state.
AMA SEIZ (HDR / NHR2 / NEXP)	Applies only to the 1600-bpi AMA system. Seizes the AMA tape for use by the DMS-10 switch and places the indicated header(s) on the tape.

Input Command	Description
	Refer to the AMA COPY command for definitions and use of the HDR, NHR2, and NEXP options.
CLR MAJ	Clears major system-detected alarms. (Faults must be cleared prior to clearing alarms.)
CLR MIN	Clears minor system-detected alarms.
DSBL DISK A / B	Applies only to the 1600-bpi AMA system. Places the disk drive on Bus A or Bus B, as indicated, in the man-made-busy state.
DSBL LIOI *n* (EMER)	Applies only to the 1600-bpi AMA system. Disables IOI pack (NT3T90) *n*, where *n* is 1, 2 or 3. The "EMER" option is used when the IOI pack being disabled is the active IOI pack.
DSBL MTU *n* (EMER)	Applies only to the 800-bpi AMA system. Disables magnetic tape unit *n*, where *n* is 0 through 3. The "EMER" option is used when the MTU pack being disabled is the active MTU.
DSBL NTRA	Applies only to the 1600-bpi AMA system. Converts the state of the AMA tape from system-made-busy to man-made-busy.
ENBL AMA	Applies only to the 1600-bpi AMA system. Enables both disk drives when the AMA system is in the down state.
ENBL DISK A / B (UPDT)	Applies only to the 1600-bpi AMA system. Enables the disk drive on Bus A or Bus B, as indicated.
ENBL LIOI *n*	Applies only to the 1600-bpi AMA system. Enables IOI pack (NT3T90) *n*, where *n* is 1, 2 or 3.
ENBL MTU *n*	Applies only to the 800-bpi AMA system. Enables magnetic tape unit *n*, where *n* is 0 through 3. The tape unit then has OFFL (off-line) or RLSE (released) status.

Input Command	Description
ENBL NTRA	Applies only to the 1600-bpi AMA system. Enables the nine-track AMA tape and places the tape in the released state. CAUTION: This command places the AMA tape in a released state so that billing data cannot be transferred to the tape. The data should be recovered by using the AMA COPY command.
FRMT DISK A/B DIR/UPDT	Applies only to the 1600-bpi AMA system. Formats the disk drive on Bus A or Bus B. The "DIR" option is used to initialize a disk directory. Initialization of the directory is required when any disk is first formatted or when both disks have been corrupted. The "UPDT" option, which is valid only if at least one disk is enabled, is used to update the formatted disk to match the data on the currently enabled disk. CAUTION: The FRMT DISK command requires extreme caution. It destroys all billing data on the disk. This command should be performed during low traffic hours and only during the initial installation of a disk or if a bad sector is encountered during disk operation. This command cannot be aborted by the user.
RLSE MTU *n use*	Applies only to the 800-bpi AMA system. Releases magnetic tape unit *n*, where *n* is 0 through 3, from DMS-10 switch control and enables the front-panel switches on the tape drive (for changing tape or manual testing). The parameter *use* must be either AMA or UTIL (utility).
SEIZ MTU *n* (NHR2) (NEXP)	Applies only to the 800-bpi AMA system. Seizes magnetic tape unit *n*, where *n* is 0 through 3, for use by the DMS-10 switch. This command also disables the front-panel switches on the tape drive.

Input Command	Description
	The “NHR2" option specifies that the AMA tape does not contain an HDR2 label. The DMS-10 switch will generate the HDR2 label and put it on the tape after the HDR1 label. The “NEXP” option specifies that the DMS-10 switch will not validate the expiration date on the tape.
STAT (LIOI)	Applies only to the 1600-bpi AMA system. Gives the status of the AMA system and the associated input/output interfaces and attached devices.
STAT MTU	Applies only to the 800-bpi AMA system. Gives the status of all equipped magnetic tape units.
SWCH AMA	Applies only to the 800-bpi AMA system. Transfers active status from currently-active AMA tape unit to currently-inactive AMA tape unit.
SWCH LIOI	Applies only to the 1600-bpi AMA system. Transfers active status from the currently-active IOI pack to the currently-inactive IOI pack
TEST DISK A/ B	Applies only to the 1600-bpi AMA system. Tests the disk drive on Bus A or Bus B, as indicated.
TEST LIOI *n*	Applies only to the 1600-bpi AMA system. Tests IOI pack (NT3T90) *n*, where *n* is 1, 2, or 3.
TEST MTU *n* (NEXP) (BLTP)	Applies only to the 800-bpi AMA system. Tests magnetic tape unit *n*, where *n* is 0 through 3, and associated equipment. The “NEXP” option specifies that the DMS-10 switch will not validate the expiration date on the tape. The “BLTP” (blank tape) option should be used for new or degaussed tapes. When this option is entered, the test command skips all label verification.

Input Command	Description
TEST NTRA	Applies only to the 1600-bpi AMA system. Performs a response test on the AMA tape.

15: Network Equipment Diagnostic

Overlay NED is used to determine the status of network, peripheral, line concentrating, and subscriber carrier equipment.

Input Command	Description
####	Interrupts any maintenance-terminal output, stops execution of the current command, and places the maintenance terminal in input mode. Response is the prompt character >.
****	Interrupts any maintenance-terminal output, aborts the overlay program, and places the maintenance terminal in the input mode. Response is the prompt character #.
?	Lists all possible inputs for a command or for a command parameter. For example, **? <CR>** reports all possible commands in the overlay, ***<command>* ?** reports all possible first level parameters for the given command in the overlay, and ***<command> <parameter1>* ?**, reports all possible second-level parameters for the given command.

Input Command	Description
BUSY *device location* (IMED)	Causes a device to be put in the MMB state and, if required, switches traffic to the mate device. System-made-busy devices must first be changed to the MMB state using the BUSY command.
DNLD D3A CE *b s p* (IMED) (NEW/OLD)	Downloads the flash memory on the DS-30A pack with firmware from the file system. The pack must be in the man-made-busy (MMB) state before downloading can be performed. The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.
DNLD IFPK CE *b s p* (IMED) (NEW/OLD)	Downloads the flash memory on the Network Interface pack (NT8T04) with firmware from the file system. The pack must be in the man-made-busy (MMB) state before downloading can be performed. The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.
DNLD MLI *(site)* CE *b s p* (NEW/OLD)	Applicable only for AE or later versions of the NT4T05 (MLI) pack. Downloads the flash memory on the MLI pack with firmware from the file system. The pack must be in the man-made-busy (MMB) state before downloading can be performed.

Input Command	Description
	The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.
DNLD TDS *(site)* CE *b s p* (NEW/ OLD)	Applicable only for CC or later versions of the NT4T01 (TDS) pack. Downloads the RAM memory on the TDS pack with firmware from the file system. The pack must be in the man-made-busy (MMB) state before downloading can be performed. The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.
OFFL *device location*	Places the designated device into the man-made-offline state. The device must first be in the MMB state before using the OFFL command. To bring the device back on-line, busy it, then return it to service.
RTS *device location* (IMED RES/DNLD)	Returns to service any device that is MMB. A device may not be returned to service if it is indirectly disabled (INDR) the device's parent device is out of service. The parent device must be returned to service before the lower-order device is returned to service.

Input Command	Description
STAT *device location* or STAT *device condition* or STAT *device* ALL	Returns the status of a particular device by location, a particular device by condition, or all devices of a particular type. For STAT commands that involve OPM or OPAC bay numbering, see the note in the "Input Commands" section. *condition* can be one of: INS in service MMB man-made-busy MMOF man-made-offline (applies to SRI, SRLK, or devices on a Network shelf only) OOS out-of-service SMB system-made-busy SMOF system-made-offline (applies to SRI, SRLK, or devices on a Network shelf only)
TEST ALL	Tests all network equipment.
TEST *device location* (DET) (REP *n*) or TEST *device* ALL	Tests the indicated device. Packs must be either INS or MMB before they are tested. Before testing a port, the parent pack and the connecting pack both must be INS. The DET option applies only when the device is PELP for CNI. When used along with the CNI Loop Detector box, causes an LED to flash for 10 seconds for the specified loop. If the REP option is used for DET, the test can be stopped with ####, but any currently running test is not interrupted. The REP *n* option specifies the number of times a test is repeated; *n* may be 1 to 32,767. If *n* is not specified, the default value is 32,767. Operating company personnel may abort the repeating test by entering ####.

Input Command	Description
VERS D3A CE *b s p* or VERS D3A ALL	Requests the version numbers of the firmware on the specified DS-30A pack or on all DS-30A packs.
VERS IFPK CE *b s p* or VERS IFPK ALL	Requests the version numbers of the firmware on the specified Network Interface (NT8T04) pack or on all Network Interface packs.
VERS MLI CE *b s p* or VERS MLI ALL	Applicable only to AE or later versions of the NT4T05 (MLI) pack. Requests the version numbers of the firmware on the specified MLI pack or on all MLI packs.
VERS TDS *(site)* CE *b s p* or VERS TDS ALL	Requests the version numbers of the firmware on the specified TDS pack or on all TDS packs.

16: Peripheral Equipment Diagnostic

Overlay PED, when requested by the craftsperson, is used to obtain the status of, test, and manipulate peripheral equipment.

Input Command	Description
####	Interrupts any maintenance-terminal output, stops execution of the current command, and places the maintenance terminal in input mode. Response is the prompt character >.
****	Interrupts any maintenance-terminal output and aborts the overlay program. The maintenance terminal response is PED005 *(site)* PE *b s p u* or PED005 *(site)* LCE/RSE/RSC/LCE *b s lsg l*, then the prompt character #.
?	Lists all possible inputs for a command or for a command parameter. For example, **? <CR>** reports all possible commands in the overlay, ***<command>*** **?** reports all possible first level parameters for the given command in the overlay, and ***<command> <parameter1>*** **?**, reports all possible second-level parameters for the given command.

Input Command	Description
BUSY *device (site) location* (IMED)	Places the specified device in the man-made-busy state. The site must be specified for devices at a remote site. The IMED option is used when a pack is call-processing busy. For BUSY commands that involve the OPM or OPAC, see the note in the "Input Commands" section. *condition* can be one of: INS in service MMB man-made-busy SMB system-made-busy
CLR MAJ	Clears major system-detected alarms.
CLR MIN	Clears minor system-detected alarms.
CUT OVER LCEB (*site*) *b* or CUT OVER LCEB ALL	This command is used only during initial installation. The command activates the cutoff relay on LCE line cards (that is, the command separates the tip and ring terminals of the line circuit from the subscriber loop). After a 128-ms period, a message is sent to the E99 CODEC to deactivate the relay, and the cutoff strap on the back of the shelf supplies current to keep the relay activated. While the cutoff strap supplies current to keep the relay activated, the installer completes the wiring and prepares to bring the LCE into service. When the shelf is ready for cutover, the installer removes the cutoff strap from the back of the shelf.

Input Command	Description
CUT OVER RSEB *site b* or CUT OVER RSEB *site* ALL	This command is used only when cutting the RSLE or RSLM shelf into service. The command activates the cutoff relay on the RSLE or RSLM line cards (that is, the command separates the tip and ring terminals of the line circuit from the subscriber loop). After a 128-ms period, a message is sent to the E99 CODEC to deactivate the relay, and the cutoff strap on the back of the shelf supplies current to keep the relay activated. While the cutoff strap supplies current to keep the relay activated, the installer completes the wiring and prepares to bring the RSLE or RSLM shelf into service. When the shelf is ready for cutover, the installer removes the cutoff strap from the back of the shelf.
DNLD UMP *site* HUBE *b s p* (NEW/OLD)	Updates the loadfile in the specified Universal Maintenance Pack (NTMY73). The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.
RTS *device (site) location*	Returns to service the specified *device*. The device must be man-made-busy before the RTS command is executed. The site must be specified for devices at a remote site. For RTS commands that involve the OPM or OPAC, see the note in the "Input Commands" section. Additional tasks performed during RTS for the Data Line Card (NT6X71AB/BA) include: data unit message loop around testing; enabling TCM sync reporting; setting up BPVO reporting; releasing TA and CO relays; sending soft reset to the Data Unit.

Input Command	Description
STAT *device (site) location* or STAT *device condition* or STAT *device* ALL	Gives the current status of the specified device. The site must be specified for devices at a remote site. When condition is specified, location is not specified, and vice versa. Not every condition is valid for every device. For STAT commands that involve the OPM or OPAC, see the note in the "Input Commands" section. *condition* can be one of: INS in service MMB man-made-busy OOS out of service SMB system-made-busy
STRT	Prints the physical address of the last equipment tested by PED in background mode. This command is valid only in the interactive mode.
STRT *(site) location*	Changes the location in the peripheral equipment at which PED will resume testing. This command is valid only in the interactive mode of the program. The site must be specified for devices at a remote site. The location is the physical address of the device, including the bay mnemonic (for example, IE, LCE, PE, RSE, SLE); the location must be specified to the unit or line number.
TEST ALL	Performs one complete cycle of PED Overlay.

Input Command	Description
TEST *device (site) location* (NORG) (REP *n*) or TEST FROM *(site) location* or TEST *device* ALL or TEST SITE *site*	Tests the specified device. The site must be specified for devices at a remote site. The NORG option applies to specific devices only. In the interactive mode of PED, the ringing test is performed on LCE lines unless the NORG option is specified. For the Data Line Card (NT6X71AB/BA), on-hook, 0-db, and ring test are not performed; instead, a data unit message loop around test is performed. For TEST commands that involve the OPM or OPAC, see the note in the "Input Commands" section. The REP *n* option specifies the number of times a test is repeated; *n* may be 1 to 32,767. If *n* is not specified, the default value is 32,767. Operating company personnel may abort the repeating test by entering ####. The TEST FROM command tests all devices with addresses greater than or equal to the specified unit or line number. If the parameter is invalid, the request is rejected without explanation. During execution, the maintenance terminal message PED0004 *(site)* PE *b s* or PED0004 *(site)* LCE/RSE *b s* is printed as a progress mark after each shelf is tested. The TEST *device* ALL command tests all devices of the specified type.
VERS UMP *site* HUBE *b s p* (ALL)	Reports the version of the loadfile resident in the specified Star Hub Universal Maintenance Pack (NTMY73) or in all UMP packs.

17: Remote Battery Control Diagnostic

Overlay RBCD provides maintenance functions for the Outside Plant Module (OPM) batteries. In the interactive mode, individual battery strings may be tested or have their status queried. However, when the battery strings are moved from one bus to another bus, they must be moved in pairs.

Input Command	Description
####	Interrupts any maintenance-terminal output, stops execution of the current command, and places the maintenance terminal in input mode. Response is the prompt character >.
****	Interrupts any maintenance-terminal output and aborts the overlay program. The maintenance terminal response is BCD005 *site* LCE *b s* , then the prompt character #.
?	Queries the system for valid RBCD commands.
BSPR CHRG *site* LCE *b pr*	Moves the indicated battery string pair onto the charge bus. The OPM or OPAC is chosen by *site* LCE *b*, where *b* is the bay that contains the Battery Control Unit (BCU). *pr* is the number of the battery string pair and can be 0, 1, 2, or 3.

Input Command	Description
BSPR LOAD *site* LCE *b pr*	Moves the indicated battery string pair onto the load bus. If that battery string pair had been manually placed on the charge bus or in the open circuit condition, the battery string pair is no longer in the manual (MAN) state. The OPM or OPAC is chosen by *site* LCE *b*, where *b* is the bay that contains the Battery Control Unit (BCU). *pr* is the number of the battery string pair and can be 0, 1, 2, or 3.
BSPR OPEN *site* LCE *b pr*	Moves the indicated battery string pair off of the charge or load bus and into the open circuit condition. The OPM or OPAC is chosen by *site* LCE *b*, where *b* is the bay that contains the Battery Control Unit (BCU). *pr* is the number of the battery string pair and can be 0, 1, 2, or 3.
BUSY BCU *site* LCE *b*	Places the Battery Control Unit (BCU) in the man-made-busy (MMB) state. When the BCU is MMB, all of the battery strings will be placed on the load bus. Therefore, any battery string pairs that were manually placed on the charge bus or in the open circuit condition are no longer in the manual (MAN) state. The OPM or OPAC is chosen by *site* LCE *b*, where *b* is the bay that contains the BCU.
MEAS BCU *site* LCE *b* or MEAS BCU ALL	Measures the voltage of all the battery strings (BSTR) associated with the indicated Battery Control Unit (BCU) or all the battery strings associated with all the BCUs. The voltage is measured in the open circuit condition and on the load and charge buses. The OPM or OPAC is chosen by *site* LCE *b*, where *b* is the bay that contains the BCU.

Input Command	Description
MEAS BSPR *site* LCE *b pr* or MEAS BSPR ALL	Measures the voltage of one battery string pair or all the battery string pairs associated with the indicated Battery Control Unit (BCU). The voltage is measured on the bus where the battery string pair is located. The OPM or OPAC is specified by *site* LCE *b*, where *b* is the bay that contains the BCU. *pr* is the number of the battery string pair and can be 0, 1, 2, or 3.
RTS BCU *site* LCE *b*	Returns the man-made-busy (MMB) Battery Control Unit (BCU) back to service. The OPM or OPAC is chosen by *site* LCE *b*, where *b* is the bay that contains the BCU.
STAT BCC *site* LCE *b bc* or STAT BCC ALL	Gives the status of an individual or all Battery Charge Controller (NT8X02) packs. Provides information on the battery strings (BSTR) associated with the BCC. The OPM or OPAC is chosen by *site* LCE *b*, where *b* is the bay that contains the Battery Control Unit(BCU). *bc* is the number of the BCC and can be 0 or 1 (BCC 0 is the leftmost pack and BCC 1 is the rightmost pack).
STAT BCU *site* LCE *b* or STAT BCU *condition* or STAT BCU ALL	Gives the status of the Battery Control Unit (BCU) by location or condition or gives the status of all BCUs. Provides information on the Battery Charge Control (BCC) packs and battery string pairs (BSPR). The OPM or OPAC is chosen by *site* LCE *b*, where *b* is the bay that contains the BCU. *condition* can be one of: INS in service MMB man-made-busy OOS out of service SMB system-made-busy

Input Command	Description
STAT BSPR *site* LCE *b pr* or STAT BSPR ALL	Gives the status of an individual or all battery string pairs (BSPR). Indicates which battery strings (BSTR) are associated with the battery string pair. The OPM or OPAC is chosen by *site* LCE *b*, where *b* is the bay that contains the Battery Control Unit (BCU). *pr* is the number of the battery string pair and can be 0, 1, 2, or 3.
TEST BCU *site* LCE *b* or TEST BCU ALL	Tests the indicated Battery Control Unit (BCU) or all BCUs. When this command is input, the associated Battery Charge Controller packs, battery string pairs, and Remote Maintenance Module (RMM) Line Test Unit also are tested. The OPM or OPAC is chosen by *site* LCE *b*, where *b* is the bay that contains the BCU.

18: Subscriber Carrier Module Diagnostic

Overlay SCM tests the Subscriber Carrier Module (SCM) shelf, DS-1 lines, and Remote Concentrator Terminal (RCT) common equipment in a DMS-10 system.

Input Command	Description
####	Interrupts any maintenance-terminal output, aborts execution of the current command, and places the maintenance terminal in input mode. Response is the prompt character >.
****	Interrupts any maintenance-terminal output and aborts the overlay program. Response is the prompt character #.
?	Queries the system for valid input. Can be used with any command.
BUSY *device* PE *b s p*	Busy the specified device. *device* can be one of: SCDG Digroup

Input Command	Description
	SCMP Processor Set. PE *b s p* is the location of the System Processor pack
	SCPS Protection Switch. The removal of a Time Switch or Digroup from service decreases the traffic-handling capacity of the SCM by about half.
	SCTS Time Switch
BUSY SCM PE *b s*	Busy the entire SCM. The BUSY command stops all traffic on the SCM.
DNLD SCM PE *b s*	This command will force the SCM to be downloaded.
LPBK RCT *site* PE *b s* or BYPS RCT *site* PE *b s*	Activate the loopback or bypass feature on the RCT specified by site PE *b s*.
	RCTs on the far side of the bypassed or loopbacked RCT are not taken out of service.
RSTR RCT *site* PE *b s*	Remove the loopback or bypass from the RCT specified by *site* PE *b s*.
RSTR SCDG PE *b s p*	Unswitch the Protection Line for the Digroup specified by PE *b s p*.

Input Command	Description
RTS *device* PE *b s p*	Return to service the specified device. *device* can be one of: SCDG Digroup SCMP Processor Set. PE *b s p* is the location of the System Processor pack SCPS Protection Switch. The removal of a Time Switch or Digroup from service decreases the traffic-handling capacity of the SCM by about half. SCTS Time Switch
RTS SCM PE *b s*	Return to service the entire SCM.
RTSS SCDG PE *b s p*	Return the Digroup at location PE *b s p* to service, but also switch it to use the Protection Line.
STAT *device* PE *b s p*	Query status of device. *device* can be one of: SCMP Processor set. PE *b s p* is the location of the System Processor pack SCDG Digroup SCTS Time Switch SCPS Protection Switch.
STAT SCM ALL	Lists the status of all SCMs and RCTs in the system.

Input Command	**Description**
STAT SCM PE *b s* or STAT RCT *site* PE *b s*	Query status of specified SCM or RCT.
SWCH SCM PE *b s*	Switches Processor Set activity on the specified SCM. This command causes an initialization in the newly active Processor Set; calls in the dialing state may be mishandled.
SWCH SCDG PE *b s p* or BUSY SCDG PE *b s p*	Switches in the Protection Line for the Digroup specified by PE *b s p*. BUSY unswitches the Protection Line when SWCH SCDG was previously used.
TEST *device* PE *b s p*	Executes tests on specified device. *device* can be one of: SCMP — Processor set. PE *b s p* is the location of the System Processor pack SCDG — Digroup SCTS — Time Switch SCPS — Protection Switch.
TEST RCT *site* PE *b s*	Executes common equipment and line loopback tests at the specified RCT common equipment shelf.
TEST SCM PE *b s*	Executes extended tests on both processor sets, Time Switches, Protection Switch, Protection Switch Failsafe, and Digroups of the specified SCM.

19: Service Equipment Diagnostic

Overlay SED is used to manipulate, obtain the status of, and test Service Equipment packs.

Input Command	Description
####	Interrupts any maintenance-terminal output, stops execution of the current command, and places the maintenance terminal in the input mode. Response is the prompt character >.
****	Interrupts any maintenance-terminal output, aborts the overlay program, and places the maintenance terminal in the input mode for overlays or other functions. Response is the prompt character #.
?	Queries the system for valid input. Can be used with any command.
BUSY *device (site) location* (IMED)	Busies the device specified.
DNLD TDS *(site)* CE *b s p* (NEW/ OLD)	Applicable only for CC or later versions of the NT4T01 (TDS) pack. Downloads the RAM memory on the TDS pack with firmware from the file system.

Input Command	Description
	The software package downloads may be optionally specified as NEW or OLD. Specifying NEW downloads the most recently dated software package. OLD downloads the oldest dated software package. If no option is entered, the currently activated software package is downloaded, without distinguishing by date.
GIVE *tone* CE *b s p DN/PEPK*	If the DMS-10 Classic Network is configured in the switch, connects the specified tone from the Tone and Digit Sender at location CE *b s p* to the line at directory number DN where: *DN* is a local (intraoffice) seven-digit number (three digits, space, four digits). *PEPK* is the physical location of the Multiple Access Directory Number (MADN): PE *b s p u* LCE *b s lsg l* *tone* is one of: BUSY busy tone CAS CPE alerting signal (call waiting ID tone) COSH class-of-service high tone COSL class-of-service low tone CRGB continuous ringback tone DT dial tone HIGH high tone LOW low tone

Input Command	Description
OVFL	overflow tone
PCRG	P-phone continuous ringing
PRNG	P-phone normal ringing
PDRG	P-phone distinctive ringing
PD1	P-phone DTMF digit 1
PD2	P-phone DTMF digit 2
PD3	P-phone DTMF digit 3
PD4	P-phone DTMF digit 4
PD5	P-phone DTMF digit 5
PD6	P-phone DTMF digit 6
PD7	P-phone DTMF digit 7
PD8	P-phone DTMF digit 8
PD9	P-phone DTMF digit 9
PD*	P-phone DTMF digit *
PD0	P-phone DTMF digit 0
PD#	P-phone DTMF digit #
RGBK	ringback tone
ROH	receiver off-hook tone

Input Command	Description
	Do not go off-hook on the specified line until the maintenance-terminal message has been generated. After the tone has been applied for 20 s, the tone is removed and the maintenance terminal prompts for more input. If there is an error, the maintenance terminal will display an error message; refer to the *Output Message Manual* for the meaning of any error message.
OFFL *device location* (IMED)	Places the specified device in the man-made offline state.
RTS *device (site) location*	Returns to service the device specified. The device must be man-made-busy before the RTS command is executed.
STAT *device (site) location* or STAT *device condition* or STAT *device* ALL	Gives the status of a particular device by location, a particular device type in a particular condition, or all devices of a particular type.

condition can be one of:

INS	in service
MMB	man-made-busy
MMOF	man-made-offline
OOS	out-of-service
SMB	system-made-busy
SMOF	system-made-offline

Input Command	Description
TEST *device (site) location* (REP *n*)	Tests the indicated device. The REP *n* option specifies the number of times a test is repeated; *n* may be any number. If *n* is not specified, the test will repeat until the command or overlay is aborted by entering #### or ****, respectively.
TEST ALL	Tests all available (non-call-processing busy) Tone and Digit Senders and receivers in the system.
VERS TDS *(site)* CE *b s p* or VERS TDS ALL	Requests the version numbers of the firmware on the specified TDS pack or on all TDS packs.

20: SHEL (UNIX Shell)

Overlay SHEL is interactive only and provides the capability to obtain additional data and status information that cannot be obtained from other overlays.

Command	Result
####	Interrupts any maintenance-terminal output, stops execution of the current command. and places the maintenance terminal into input mode. Response is the prompt character >.
****	Interrupts any maintenance-terminal output and aborts the overlay program. Response is the prompt character #.
?	Queries the system for valid input.
ARP LIST	Displays the translation tables used by the Address Resolution Protocol (ARP) to convert an IP address to a physical address.
ARP DEL *addr*	Modifies the ARP translation tables by deleting the entry associated with IP address *addr*.

Command	Result
MON *actor*	Monitor messages generated by the specified DMS-10 system *actor* (program/application). The *actor* parameter is required and may be one of the following: DEVM (ethernet device manager), FTPD (FTP server), IBSR (IBSR AMA record server), INET (local DNS server), LOGD (system logging server), NOAP (all applications), PCHS (system patching server), RFSD (redundant file system server), STUD (Study server), TELD (telnet server), TELS (telephony supervisor actor), or TELU (telephony user actor).
NTST	Displays information about currently active IP network connections, including protocol, local address (IP and port), remote address (IP and port), connection state, messages queued for reception, and messages queued for transmission.
NTST MEM	Displays statistics on system memory currently in use by the IP networking subsystem.
NTST *protocol*	Displays statistical information relevant to the specified IP networking *protocol*, which may be one of TCP, UDP, IP, or ICMP.
PING *(n) addr*	Determines whether specific IP address *addr* is accessible by sending *n* (greater than zero) Internet Control Message Protocol (ICMP) Echo Request packets to the network host once per second. Information about each packet that is echoed back via an ICMP Echo Response packet is output, including round-trip time. If *n* is unspecified, packets are sent until ping is interrupted with #### or ****.

Command	Result
PUSH *filetype1 (filetype2) (destination)*	*This command is only valid if the Integrated Billing Storage and Retrieval (IBSR) feature is configured.* Initiates a manual IBSR AMADNS/ TGMU data file push of the specified *filetype* to the specified *destination*. The *filetype1* parameter is required and may be one of STD, TEST, TGMU, *SecStdFileName* or *SecStdSEqNumber.* STD refers to all primary standard AMADNS files. TEST refers to all primary test AMADNS files. TGMU refers to all primary TGMU data files. *SecStdFileName* is the name of an existing secondary standard AMADNS file (for example, 020024.030002.00032.01.2). *SecStdSEqNumber* is the sequence number of an existing secondary standard AMADNS file (for example, 32). When the *filetype1* parameter is TGMU it may be followed by a *filetype2* parameter. The *filetype2* parameter may be one of *SecTGMUFileName* or *SecTGMUSeqNumber*. *SecTGMUFileName* is the name of an existing secondary TGMU file (for example, 020024.03002.00032.31.2). *SecTGMUSeqNumber* is the sequence number of an existing secondary TGMU file (for example, 32). The secondary TGMU files may only be specified after the TGMU token. (PUSH TGMU <*SecTGMUFileName*> <*SecTGMUSeqNumber*>). The *destination* parameter is optional, and may be either PRIP, indicating the primary AMA collector (DPMS)/TGMU data collector, ALIP, indicating the alternate AMA collector/TGMU collector. If *destination* is not specified, behavior of the manual push mirrors that of a scheduled automatic push, which is to say, the files will be pushed to the primary AMA collector/TGMU collector unless it cannot be reached, in which case the files will be pushed to the alternate AMA collector/TGMU collector.

Command	Result
REPL *actor (n)*	Replays messages generated by the specified DMS-10 system *actor* that are still present in the in-core log buffer. The optional parameter *n* limits the replay to at most the last *n* message lines found in the log buffer. Se the section on the MON command above for valid values of the *actor* parameter.
STAT IBSR	*This command is only valid if the Integrated Billing Storage and Retrieval (IBSR) feature is configured.* Displays status information about the IBSR subsystem, including critical IBSR actors, IBSR AMADNS files on disk, and percentages of Redundant File System (RFS) buffers, IBSR buffers, and billing registers that currently contain AMA/TGMU data. Indicates one of three IBSR subsystem statuses - SYSTEM OKAY, AMA OUTAGE IMMINENT, or AMA OUTAGE IN PROGRESS.
STAT TGMU	*This command is only valid if the Trunk Group Member Usage (TGMU) feature is configured.* Displays status information about the TGMU subsystem, including critical TGMU actors, TGMU data files on disk, and percentages of Redundant File System (RFS) buffers, TGMU buffers, and billing registers that currently contain AMA/TGMU data. Indicates one of three TGMU subsystem statuses - SYSTEM OKAY, TGMU OUTAGE IMMINENT, or TGMU OUTAGE IN PROGRESS
TELN	Establishes a telnet connection to the telnet server on the DMS-10.
TELN *addr*	Establishes a telnet connection to the remote host with IP address *addr*.

Command	Result
TRCR *addr*	Traces the route an IP packet would follow to internet host *addr* by launching User Datagram Protocol (UDP) probe packets, then listening for an ICMP “time exceeded” reply from a gateway. The address of each responding system will be printed, and if there is no response within a three second timeout interval, an asterisk (*) is printed.

IBSR Debug Tools

This section lists the commands only valid if the Integrated Billing Storage and Retrieval (IBSR) feature is configured. The commands are described with the appropriate syntax, the function of the command, and the output as printed to the terminal.

In order to use these tools, overlay SHEL must be loaded with the IOI ENBL and at least one available NT8T90 hard disk. The overlay is loaded by entering OVLY SHEL and !ibsrTools at the SHEL prompt as shown below.

```
#ovly shel
SHEL000

>!ibsrTools

ibsr cmd>
```

Command	Result
audit filename	Audits the IBSR billing file specified by <filename> Output: Not applicable.
auditA	Audits all IBSR billing files except for the currently open file.Output: Not applicable.
check *filename y/n*	Displays header information for the IBSR billing file specified by <filename>. If the command is executed with the y option, additional information about the call types contained within the file is also output.

Command	Result
debug	Toggles verbose debug mode, which prints additional information about the results of each command.Output: verbose debug now <on/off>.
flush	Flushes any BAF records from the IBSR buffer into the currently open IBSR billing file.Output: ibsr flush <succeeded/failed>.
getP	Displays IBSR parameters defined in OVLY CNFG
help	Displays a list of available commands and a short description of each.
list	Lists all primary IBSR billing files with their creation date and time.
opmQ	Displays IBSR-related OPM information
printRec *filenameStart indexend index*	<end_index> contained within file <filename>.
quit	Exits the command mode and returns to overlay SHEL prompt.
stat	Outputs IBSR status information, including number of files, buffer space, and memory allocation.

21: Signaling Network Diagnostic

Overlay SND is an interactive program used to test and manage the signaling network configuration for Common Channel Signaling system No. 7 (CCS7). In the interactive mode, this diagnostic tests and manipulates signaling links and signaling network routes.

Command	Result
####	Interrupts any maintenance-terminal output, places the maintenace terminal in input mode, and stops execution of the current command. Response is the prompt character >.
****	Interrupts any maintenance-terminal output, stops execution of the current command, aborts overlay program, and places the terminal in input mode and aborts the overlay program. Response is the prompt character #.
?	Queries the system for valid input. Can be used with any command.
BLK SNR *n x* (IMED)	Blocks signaling network route x of route set *n* from handling non-maintenance message traffic.

Command	Result
	x can be one of: PRI1 first primary route in route set *n* PRI2 second primary route in route set *n* ALT1 first alternate route in route set *n* ALT2 second alternate route in route set *n* *n* is of the form *n(nn) c(cc m(mm)*, where: *n(nn)* network code, from 1 through 255, of the route set *c(cc)* cluster code, from 0 through 255, of the route set *m(mm)* member code, from 0 through 255, of the route set
BUSY SNL *n x* (IMED)	Disables signaling link *x* in signaling link set *n* or disables signaling link set *n*.
BUSY SNLS *n* (IMED)	The IMED (Immediately) option makes the signaling link or signaling link set unconditionally unavailable.
INH SNL *n x* or INH SNLS *n*	Inhibits signaling link set *n* or something link *x* in signaling link set *n* from handling non-maintenance message traffic.
LIST E800/CNAM/ AIN NSCT *table indicator (digit option) (translation type)*	A Service Control Point (SCP) may request that network management controls be placed on Number Services calls. For E800, the controls may be placed on a particular Number Services code (800-NXX-XXXX) or on a group of Number Services codes (800-NXX). For CNAM, the controls are placed on a group of Number Services codes (NPA-NXX). The LIST command queries a number service control table (NSCT) which contains all Number Services codes that have network management restrictions.

Command	Result
	table indicator can be one of: 6DG 6-digit number service control table (applies only to E800 and CNAM) 10DG 10-digit number service control table (applies only to E800) SCP 6-digit SCP overload control (applies only to AIN) SM Sservice management system originated code control for 3, 6, 7-10 digit codes (applies only to AIN) ALL all number service control tables for the specified number service *digit option* can be any 6-digit (for CNAM), 10-digit (for E800), or 3, 6 through 10-digit (for AIN) combination; only the number service control corresponding to the digits entered will be decoded and displayed to the TTY. *translation type* (a numeric token, 0 through 255) is valid only if the service type is AIN.
RTS SNL *n x* or RTS SNLS *n*	Enables signaling link *x* in signaling link set *n* or enables signaling link set *n*.
SEND AIN	Sends a query to the Service Control Point (SCP) AIN data base so that returned routing information can be verified. The query is constructed using the “SET AIN” commands in this overlay.

Command	Result
SEND CNAM SCPQ *calling digits DN privacy database* (ACG)	Sends a query to the Service Control Point (SCP) calling name data base so that returned routing information can be verified. *calling digits* is a 10-digit DN (NPANXXXXXX) *DN privacy* is the calling number privacy status and can be one of: PRIV Presentation restricted PUB Presentation allowed *database*, a required parameter if the CLASS on Centrex feature is installed in the switch, specifies the calling name database to be queried; database can be one of: LOCL Sends message to the DPC associated with the LOCL database defined in Overlay CNFG (DISP) CENT Sends message to the DPC associated with the CENT database defined in Overlay CNFG (DISP) RES Sends message to the DPC associated with the residential IN/1 database defined in Overlay CNFG (DISP) ACG is an optional parameter which indicates that the ACG control tables will be updated when an ACG parameter is returned in the TCAP response.
SEND E800 SCPQ *nnn ID calling digits called digits*	Simulates sending a query to the Service Control Point (SCP) data base so that returned routing information can be verified. *nnn* is a 3-digit LATA number *ID* is the originating station type (identification digits) *calling digits* is a 10-digit DN (NPANXXXXXX) *called digits* is a 10-digit DN (800NXXXXXX)

Command	Result
SET AIN *parameter value*	Assigns values to TCAP parameters for an AIN test query. The *parameter* is a mnemonic representing a TCAP parameter; the *value* is the data that populates the parameter. *parameter* and corresponding *value* can be one of: ACCD (access code) 1 through 5 digits BC (bearer capability) 0 (speech) 1 (3.1 kHz audio) 3 (56kbps) 4 (64kbps) CLED (called party ID) 0 through 15 digits CLNG (calling party ID) 3, 6, 10 digits CHNU (charge number) 3, 6, 10 digits CLAI (collected address info) 0 through 15 digits CLDG (collected digits) 0 through 32 digits LATA (Local Access Transport Area)3 digits CIC (primary carrier) 4 digits SLHR (service logic host route) numbers 1 through 15 (Continue)

Command	Result
	(Continue) TRIG (trigger criteria type) 1 (vertical service code 2 (customized access) 3 (shared intercom) 4 (NPA) 5 (NPANXX) 8 (NPANXXXXXX) 12 (N11) 14 (shared IO trunk) 15 (termination attempt) 16 (off-hook immediate) 17 (off-hook delay) 19 (NPAN) 20 (NPANX) 21 (NPANXXX) 22 (NPANXXXX) 23 (NPANXXXXX) USID (user ID) 10 digits for DN 4 digits for MF or ISUP trunk 10 digits + 3 through 20 characters for SPID VSCD (vertical service code)maximum 5 characters (first character is * or digit, the remaining characters are digits)
SET AIN USID *facility value*	Assigns originating facility type for an AIN test query. The *facility* is the identity of the originating facility type; *value* is the ID of the facility. *facility* and corresponding *value* can be one of: DN 10-digit directory number MF 1 through 4-digit trunk group number ISUP 1 through 4-digit trunk group number TSP 10-digit number succeeded by an SPID consisting of 3 through 20 characters

Command	Result
SET AIN *parameter* NONE	Removes a designated parameter from an AIN test query. The *parameter* is a mnemonic representing a TCAP parameter. *parameter* can be one of: ACCD(access code) CLED (called party ID) CLNG (calling party ID) CHNU(charge number) CLAI (collected address info) CLDG (collected digits) LATA (Local Access Transport Area) CIC (primary carrier) VSCD (vertical service code)
SET SUBP *parameter sub-parameter value*	Assigns a sub-parameter to an AIN test query TCAP parameter. *parameter* and associated *sub-parameter* mnemonics can be: CLED (called party ID) NON (nature of number) CLNG (calling party ID) PRI (presentation restriction indicator) SCRI (screening indicator) CHNU (charge number) NON (nature of number CLAI (collected address info) NON (nature of number) CIC (primary carrier) CARS (carrier selection) (Continue)

Command	Result

(Continue)
value for the *sub-parameter* can be one of:
NON
- 0 (not applicable)
- 1 (subscriber number)
- 3 (national number)
- 4 (international number)
- 113 (subscriber number, operator requested)
- 114 (national number, operator requested)
- 115 (international number, operator requested)
- 116 (no address present, operator requested)
- 117 (no address present, cut-through call to carrier)
- 118 (900+ call from local exchange carrier)

PRI
- 0 (presentation allowed)
- 1 (presentation restricted)
- 2 (number unavailable)

SCRI
- 0 (reserved for user provided, not screened)
- 1 (user provided, passed network screening)
- 2 (reserved for user provided, failed network screening)
- 3 (network provided)

CARS
- 0 (no indication)
- 1 (carrier presubscribed and not input by calling party)
- 2 (carrier presubscribed and input by calling party)
- 3 (carrier presubscribed, no indication of input by calling party)
- 4 (carrier not presubscribed and input by calling party)

Command	Result
STAT *device* (ALL / *condition* / L3)	Reports the status of specified device. *device* can be one of: SNL *n x* signaling link *x* in signaling link set *n* SNLS *n* signaling link set *n* SNR *y z* signaling network route *z* in route set *y* SNRS *y* signaling network route set *y* Signaling network route *z* can be one of: PRI1 first primary route in the route set PRI2second primary route in the route set ALT1first alternate route in the route set ALT2second alternate route in the route set *y* is of the form *n(nn) c(cc) m(mm)* where: *n(nn)* is network code, from 1 through 255, of the route set *c(cc)* is cluster code, from 0 through 255, of the route set *m(mm)* is member code, from 0 through 255, of the route set (Continue)

Command	Result
	(Continue) ALL specifies all devices, in state indicated by *condition*, if specified, of type indicated by *device*. *condition* may be one of: INS in service (SNL only) MMB man-made busy (SNL only) SMB system-made busy (SNL only) OOS out of service (SNL only) MBLK manually blocked (SNR only) SBLK system blocked (SNR only) UBLK unblocked (SNR only) AVAL available (SNL, SNRS only) UNAV unavailable (SNL, SNRS only) LINH locally inhibited (SNL only) RINH remotely inhibited (SNL only) LPO local processor out (SNL only) RPO remote processor out (SNL only) CONG congested (SNRS only) L3 specifies that the Level 3 status is output instead of Level 4 status. This option, which is only valid when a single SNRS is specified, invokes a query to the active SNC and displays the information received, including the transfer status of each SNR, which is not maintained at Level 4. If there is a discrepancy between the Level 3 and Level 4 access or congestion status, the Level 4 status will be updated to match that of Level 3 and an error message will display. If there is a discrepancy between the Level 3 and Level 4 block status for any SNR belonging to the SNRS, the Level 3 status will be updated to match that of Level 4 and an error message will display.
STAT AIN	Displays TCAP parameter names, values, and status required for an AIN test query.
TEST SNL *n x* <CR>	Test signaling link *x* of signaling link set *n*.

Command	Result
UBLK SNR *n x* (IMED)	Causes the signaling network route *x* of route set *n* to become available to handle non-maintenance message traffic. Signaling network route *x* is one of: PRI1 first primary route of route set *n* PRI2 first primary route of route set *n* ALT1 first alternative route of route set *n* ALT2 first alternative route of route set *n* Signaling network route set *n* is of the form *n(nn) c(cc) m(mm)*, where: *n(nn)* is network code, from 1 through 255, of the route set *c(cc)* is cluster code, from 0 through 255, of the route set *m(mm)* is member code, from 0 through 255, of the route set
UINH SNL *n x* or UINH SNLS *n*	Allows the signaling link set *n* or signaling link *x* in signaling link set *n* to handle non-maintenance message traffic.

22: Standby and 0-dB Line Overlay

Overlay STBL is used for switching and restoring non-LCE standby lines.

Command	Result
####	Interrupts any maintenance-terminal output, stops execution of the current command. and places the maintenance terminal into input mode. Response is the prompt character >.
****	Interrupts any maintenance-terminal output and aborts the overlay program, and places the maintenance terminal in the input mode for overlays or other functions. Response is the prompt character #.
?	Queries the system for valid input. Can be used with any command.
LIST LPK *ld dB*	Lists all LCE-based lines that have a particular combination of type of service and balance network setting. *ld* can be one of: LD loaded NOLD nonloaded *dB* can be one of: 0 DB 0-dB service 2 DB 2-dB service ALL either type of service

Command	**Result**
LIST LPK ZDBX *(site)* LCE *b s p u* or LIST LPK ZDBX ALL	Lists the characteristics of the specified 0-dB LCE-based line(s).
LIST PEPK ZDBX *(site)* PE *b s p* or LIST PEPK ZDBX ALL	Lists the characteristics of the specified 0-dB pack(s).
LIST SBLN *status*	Lists equipped standby lines. *status* can be one of: ACTV active in a sparing connection ALL all equipped lines INAC not active in sparing connection PRE active in sparing connection but currently preempted.
LIST SPLN *status*	Lists equipped spared lines. *status* can be one of: ALL active in a sparing connection PRE active in sparing connection but currently preempted.
LIST UNIT *ld dB*	Lists all PE-based lines that have a particular combination of type of service and balance network setting. *ld* can be one of: LD loaded NOLD nonloaded *dB* can be one of: 0 DB 0-dB service 2 DB 2-dB service ALL either type of service
LIST UNIT ZDBX *(site)* PE *b s p u*	Lists the characteristics of the specified 0-dB PE-based line.
RSTR LINE *(site)* PE *b s p u*	Restore the specified line circuit to active service.

Command	Result
SWCH LINE *(site)* PE b s p u	Switch in a standby line circuit to replace the specified circuit.

23: Trunk and Loop Tester

Overlay TLT provides interactive outside plant testing capability to the DMS-10 switch. The overlay tests only actual trunks and loops and does not test the circuit packs associated with the trunks and loops. Overlay TLT tests tip/ground and ring/ground ac voltages and dc voltages and tip/ground, ring/ground, and tip/ring resistances and capacitances. The tester can connect the subscriber loop under test to the test access telephone in the DMS-10 to listen for noise and to ring the subscriber's line (this does not apply to RLCM or OPM).

Command	Options	Explanation
?		Queries the system for valid input.
ANI	xxx abc defg	Queries or enters an Automatic Number Identification (ANI) directory number. Typing ANI without parameters queries the ANI number.
BERT	DLC/DU64/ DU/L/LU/T (B1/B2) (*n*) UPLD STOP	Measures the transmission quality of a loop. In this test, a known pattern of data is generated by the NT6X99 and sent over a designated loop. By echoing back the data at different points on the loop and measuring the quality of the transmission at these points, faults on the loop can be isolated.

Command	Options	Explanation
BUSY	(IMED) *(site)* PE/CE *b s p u* (IMED) DN *abc defg* (IMED) *(site)* LCE/RSC/ RSE/HUBE *b s lsg l* (IMED) *site* SLE *b cb cu* (IMED) *site* UCE *b lsg l*	Changes the status of the given trunk or loop from in-service (INS) or system-made-busy (SMB) to man-made-busy (MMB).
CAN		Disconnects any circuit connected to the DUT.
COIN	COL RET (default)	Checks to see if a coin is present at the DUT.
COL	DP DGT *(site)* CE/ PE /RSC *b s p u* MF *(site)* PE/ RSC *b s p u*	Prints all digits generated by a loop or received by an incoming or two-way trunk.

Command	Options	Explanation
COND	-2 (default) 0 L (default) NL	Allows the user to temporarily set the gain pad and balance network settings on a 0-dB line pack. The COND command options may be specified in any order. Gain is given as -2 dB or 0 dB, and balance can be loaded (L) or nonloaded (NL).

Command	Options	Explanation
CONN	*(site)* PE/CE *b s p u* *(site)* LCE/ RSC/ RSE/HUBE *b s lsg l* *site* SLE *b cb cu* *site* UCE *b lsg l* *(site)* IDE *n l* DN *abc defg* 2WTT *(site)* 4WTT *(site)* LPBK FREQ *freq gain* TONE *tone* QUE (default)	Allows the user to connect a digital speech path between the DUT and a specified device. *freq* (in Hz) can be: 404 1004 (default) 2804 *gain* (in dB) can be: -18 -16 -2 0 (default) 3 *tone* can be: BUSY busy (60 ipm) CAS customer alert signal COSH class-of-service high COSL class-of-service low DT dial tone OVFL overflow or fast busy (120 ipm) PCRG P-phone continuous ringing PRNG P-phone normal ringing PDRG P-phone distinctive ringing PD1 P-phone DTMF digit 1 PD2 P-phone DTMF digit 2 PD3 P-phone DTMF digit 3 PD4 P-phone DTMF digit 4 PD5 P-phone DTMF digit 5 PD6 P-phone DTMF digit 6 PD7 P-phone DTMF digit 7 PD8 P-phone DTMF digit 8 PD9 P-phone DTMF digit 9 PD* P-phone DTMF digit * PD0 P-phone DTMF digit 0 PD# P-phone DTMF digit # QT quiet termination RGBK ringback ROH receiver off-hook (howler) TEST 1020 Hz test (default

Command	Options	Explanation
CVT		Verifies whether an ISUP trunk connected to local and far-end offices has been set up correctly.
DAXS	*(site)* LCE/ RSC/ RSE/HUBE *b s lsg l* DROP QUE (default) *(site)* IDE *n l*	Specifies the NTBX27 line card used as a digital test access port used for the next ISDN b- or D-channel monitoring process. DAXS QUE or DAXS without a specified location prints the DTA line card location. DAXS DROP releases the specified NTBX27 from DTA status.
DISC		Signals on-hook to the outgoing trunk causing the far-end trunk to be released and the seized condition to be dropped.
DMON D/B1/B2	*(site)* LCE/ RSC /RSE/HUBE *b s lsg l* *time* (*time* = 1 to 480 min) FRVR	Begins digital monitoring of a defined channel (B_1-, B_2- or D-channel) on a specified ISDN line card location.
DROP		Cancels any connection or jack and releases the DUT so a new one may be selected.
DTRT	*(site)* CE/ PE *b s p u* DROP QUE (default)	Sets up test that prints digits detected by the given DGT receiver or UTR channel.

Command	Options	Explanation
HOLD	*time* (*time* = 1 to 480 min) ONHK OFHK DROP *n* (*n* = setup number = 1, 2, 3, 4) QUE FRVR	Turns control of the DUT over to the long-term test supervisor (LTTS) as a test setup so the user can select a new DUT. Up to four test setups may be held simultaneously. The DROP *n* option allows the test setup to be dropped. The QUE option allows the LTTS to be queried. The FRVR option allows monitoring to continue indefinitely until a HOLD DROP *n* command is entered.
JACK	TX (default) SIG DROP QUE BRI <none>	Makes a metallic connection through the metallic bus from the maintenance jack panel to the analog side of the device under test and to any connected device. The connection is broken when Overlay TLT is aborted. The command options are used in the following ways: the BRI command option is used for bridged access to LCM lines; the SIG (signaling) command option is used only with trunks; the TX (transmission) command option is used only for four-wire E&M trunks; the DROP option cancels an existing connection; the QUE (query) option provides the current JACK command status indicating whether there is currently a connection. If no command option is entered with the JACK command when there is no current connection, the TX command option is the default option issued with the command. If no command option is entered when a current connection exists, the DROP option is the default command option.

Command	Options	Explanation
LIST		Prints all command names that can be used in TLT, including any abbreviations.
MEAS	ACV	Connects the DUT to the testing device. See NTP 297-3401-506 for more detailed information.
	DCV	
	RES	
	CAP	
	ALL (default)	
	SEND (default)	
	RECV[1]	
	SIG[2]	
	OUT (default)	
	IN[3]	
	E	
	M	
	BRI	
	(REP *n*)	
MFRT	*(site)* CE/PE *b s p u*	Sets up test that prints digits detected by the given MF receiver or UTR channel.
	DROP	
	QUE (default)	

Command	Options	Explanation
OPLS	MF (=) *digits* ANI DP *digits* (ANI) DGT *digits* (ANI) ISUP *digits* (ANI) (COT) PRI *digits* (ANI)	Outpulses the given digits (that represent the called number) over the DUT. The maximum number of digits can be 32. If outpulsing type is not specified, TLT will outpulse the type specified in the trunk's data block. If a NODG trunk is the DUT, TLT defaults to IDT = 700 ms. For MF outpulsing, TLT automatically inserts KP and ST at the beginning and the end of the digit string unless the option "=" is used. Valid MF dialing digits are 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, KP, KPP, KP2P, KP3P, ST, STP, ST2P, ST3P. For DGT outpulsing, valid digits are 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, *, #. Type a space between digits. If Automatic Number Identification (ANI) outpulsing is required (for example, for CAMA or TSPS trunks), enter ANI following the digits. The continuity test (COT) option is also available for ISUP trunks.
POWR	FLAT (default) (REP *n*) CMSG (REP *n*) CNCH (REP *n*)	Connects the DUT to the ac Tester (ACT). The REP *n* command may be given to repeat the POWR test every 2 s for a given number of times. The letter *n* must be an integer between 1 and 32,000; if *n* is not specified, the default value is 32,000. Operating company personnel may abort the repeating operation by entering ####.

Command	Options	Explanation
REC	QUE (default) SET PLAY DROP	Operates the Digital Recorded Announcement (DRA) pack. REC QUE gives the status of the DRA pack that is the device under test. REC SET records a desired message onto the DRA pack. The REC SET command is only valid on Unit 1 of the DRA pack. REC PLAY places the selected DRA into the playback mode until the command is terminated. REC DROP drops all connections on the DRA pack, drops the DRA pack as the device under test, and drops the VAXS.
RING	TR T R T1 R1 T2 R2 T3 R3 T4 R4 T5 R5	Applies ringing to the DUT, which must be a loop, and gives ringback tone to operating company phone specified by the VAXS command. Typing #### will stop ringing and prompt for the next command.

Command	Options	Explanation
RTS	*(site)* PE/CE *b s p u* *(site)* LCE/RSC/RSE/HUBE *b s lsg l* DN *abc defg* *site* SLE *b cb cu* *(site)* IDE *n l* *site* UCE *b lsg l*	Changes the status of the given trunk or loop from MMB to INS. If a device is not specified, the DUT is returned to service by default.
SEIZ		Signals offhook in the out direction on the DUT, which must be an outgoing or two-way trunk.

Command	Options	Explanation
SEL	*(site)* PE/ CE *b s p u* *(site)* LCE/ RSC/ RSE/HUBE *b s lsg l* *site* SLE *b cb cu* *(site)* IDE *n l* *site* UCE *b lsg l* DN *abc defg* 2WTT *(site)* 4WTT *(site)* SHOE OUT (default) (*site*) IN BOTH QUE (default)	Specifies the device that will be the DUT. The SHOE option allows the user to manually connect a loop or trunk not equipped in the DMS-10 switch to the four-wire MDF shoe of the PMS. This PMS shoe consists of two wire pairs marked “OUT” and “IN".
SELF		Performs a complete self test on the DPX, DLC, and DU facilities (Switched-56 Kbps Services feature).

Command	Options	Explanation
STAT	*(site)* PE *b s p u*	Gives maintenance status of the given trunk or loop.
	(site) LCE/ RSC/ HUBE *b s lsg l*	
	DN *abc defg*	
	site SLE *b cb cu*	
	site UCE *b lsg l*	
	(site) IDE *n l*	
TALK		Sets up a digital speech path between the operating company's phone (VAXS connection) and the DUT.
TMBS	<# of messages>	Tests an M5000-Series business set (associated with the Meridian Business Sets (MBS) feature).

Command	Options	Explanation
VAXS	*(site)* PE *b s p u* *(site)* LCE/ RSC/ RSE/HUBE *b s lsg l* *site* SLE *b cb cu* *(site)* IDE *n l* *site* UCE *b lsg l* DN *abc defg* DN *npa abc defg* DROP QUE (default)	Specifies a DMS-10 switch line or SLC-96 line as the operating company's phone. Typing VAXS with no parameters gives the location of the phone presently assigned as the craftsperson's phone. The VAXS command is used in conjunction with the TALK command and with the MON command.
WAIT		Instructs the TLT to keep polling the busy device until it becomes idle, at which time TLT will select or connect the device. The user may cancel the WAIT command by typing ####.

24: Update Overlay

Overlay UPDT is used for four functions:

- transferring equipment data from system memory to a specified IOI device and to manage software packages
- updating the active IOI device after equipment data is changed using the DMO programs
- assigning NT8T04 Network Interface packs
- relocating the peripheral loops on the NT4T04/ NT4T05 packs in the DMS-10 Classic Network to peripheral loops on the NT8T04 packs in the DMS-10EN network

In Generic 502 and later 500-Series releases, the UPDT overlay will also be used for administration purposes. When these commands are introduced, the associated command descriptions will appear in NTP 297-3601-311 (*Data Modification Manual*).

In Generic 503 and later 500-Series releases, the database will be inaccessible during office data backups to the DMS-10 file system by the UPDT overlay. Any pending database changes will be made after the office data backup has completed.

Prompt	Response	Description
REQ		Asks for the operation to be performed. REQ is prompted when the UPDT Overlay is activated.

Prompt	Response	Description
	?	Queries the system for valid input. Can be used with any command.
	ACTV *file#* HD0/HD1/ MO0	In Generic 601.10 and later. Makes the set of office data and configuration record files specified by *file#* the active office data and configuration record files on the target IOI device. *file#* is obtained from the 'QUE *device* DATA" command.
	AP *pnum (pnum2*)	Activates a patch or group of patch(es). *pnum* is the patch number. *pnum2* defines the upper limit of a range of patch numbers to be activated.
	BP *pnum (pnum2)*	Deactivates a patch or group of patch(es). *pnum* is the patch number. *pnum2* defines the upper limit of a range of patch numbers to be deactivated.
	CTS *pnum (pnum2*)	Clears test status for the specified patch(es). *pnum* is the patch number. *pnum2* defines the upper limit of a range of patch numbers for which test status is cleared.

Prompt	Response	Description
	DUMP HD0 / HD1 / MO0 / ALL	Transfers equipment data from system memory to a specific IOI device or to all devices. The device can be a hard disk (HD0 or HD1) or a magneto-optical device (MO0). A DUMP creates two data copies: the data copied to the specified device and a backup copy. The backup copy contains the office data as it appeared prior to the DUMP command execution. **Note:** In 503.10 generics and beyond, the DUMP command will perform a patch synchronization so that all devices will contain the same level of patch information. Also if the Automatic Patch Application feature is turned on by the CNFG (OVLY) sequence, any patches that have not yet been applied will be applied after the dump. **NOTE2:** In 601.10 generics and beyond, when ALL is specified and an IP address of a collection point in the DMS-10 network has been configured via overlay CNFG(AODB) sequence, the latest version of the equipment data will also be transferred to the IP location. The backup data files created are the office data files appended with a site name, date, time stamps, and generic that the backup file was created. For example, an office data backup file created for site SYS1 would have the following name: "SYS1.2005.06.22.13.30.601.10.office.dat".
	EP *pnum (pnum2*)	Erases a software patch or group of patch(es) from memory. *pnum2* defines the upper limit of a range of patch numbers to be erased.

Prompt	Response	Description
	GETF *file#* HD0/HD1/ MO0	In Generic 601.10 and later. Copies the specified set of office data and configuration record data files from the IP location into the DMS-10 officeData directory on the specified target IOI device. *file#* is obtained from the "QUE IP DATA" command.
	LP *pnum (pnum2*)	Loads patch(es) into memory. *pnum* is the patch number. *pnum2* defines the upper limit of a range of patch numbers to be loaded.
	LUP	Lists unloaded patches.
	MON ON/OFF/ <CR>	In Generic 601.10 and later. Turns the FTP trace for the AODB feature on or off. When no parameter is entered the status of the monitor function is output.
	PKG ACT *device package*	Activates an installed software package on a specified device. A default device does not exist for this command, therefore a device must be specified. *device* may be one of: HD0 hard disk 0 HD1 hard disk 1 MO0 magneto-optical device ALL all IOI devices

Prompt	Response	Description
	PKG DACT *device package*	Deactivates a previously activated software package on a specified device. A default device does not exist for this command, therefore a device must be specified. *device* may be one of: HD0 hard disk 0 HD1 hard disk 1 MO0 magneto-optical device ALL all IOI devices *package* is the name assigned to the software package.
	PKG DEL *device package*	Deletes a compressed software package on a specified device. A default device does not exist for this command, therefore a device must be specified. *device* may be one of: HD0 hard disk 0 HD1 hard disk 1 MO0 magneto-optical device ALL all IOI devices *package* is the name assigned to the software package.

Prompt	Response	Description
	PKG INST *from-device package (to-device*)	Installs a compressed software package, located on a specified device (*from-device*), onto a specified device (*to-device*). A default device does not exist for this command, therefore a device must be specified. If the destination device (*to-device*) is omitted, the source device (*from-device*) is also used as the destination. *from-device* may be one of: HD0 hard disk 0 HD1 hard disk 1 MO0 magneto-optical device *to-device* may be one of: HD0 hard disk 0 HD1 hard disk 1 MO0 magneto-optical device ALL all IOI devices *package* is the name assigned to the software package, which must be enclosed within quotation marks.
	PKG LIST *device*	Lists all software packages stored on the specified device. *device* may be one of: HD0 hard disk 0 HD1 hard disk 1 MO0 magneto-optical device ALL all IOI devices

Prompt	Response	Description
	PKG UINS *device package*	Un-installs a previously installed software package on a specified device. A default device does not exist for this command, therefore a device must be specified. *device* may be one of: HD0 hard disk 0 HD1 hard disk 1 MO0 magneto-optical device ALL all IOI devices *package* is the name assigned to the software package.
	PUTF *file#* HD0/HD1/ MO0/<CR>	In Generic 601.10 and later. Copies the active set of office data and configuration record data files from the officeData directory on the specified target IOI device to the IP location. When a *file#* is specified the set of office data and configuration record data files on the specified target IOI device are sent to the IP location. When <CR> is entered the active files on the primary IOI device are sent to the IP location.
	QP *pnum (pnum2*)	Provides header fields for a specific patch(es) in memory. The patch(es) must either be loaded (see QPL) or present on an enabled disk (see LUP). *pnum* is the patch number. *pnum*2 defines the upper limit of a range of patch numbers for which header fields are provided.
	QPL	Provides the latest patch level and numbers of all loaded patches.

Prompt	Response	Description
	QUE *device* DATA	Displays the file creation information for all sets of office and configuration record files on the specified device. The device can be: HD0 or HD1 - hard disks, MO0 - magneto-optical device, IP - IP collection point in the DMS-10 network, ALL - all IOI devices and IP location.
	QUE *device* DNLD	Displays the firmware download link name and its corresponding filename. The *device* can be a hard disk (HD0 or HD1), a magneto-optical device (MO0), or all IOI devices (ALL).
	WPS	Write patch status file. Forces the patch status file on all enabled disks to be updated with the current patch layout of the DMS-10 switch. WPS is performed automatically when the patch level changes.

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.DMS-10 Family

600-Series Generics

Pocket Guide to
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