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DMS-100 Family

Distributed Processing Peripheral Command Quick Guide

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About this publication

When to use this document

This document describes the valid commands for the Distributed Processing Peripheral (DPP) system. This document also includes a brief explanation of the maintenance interface to the DPP. The information in this document is intended for craftspeople, Central Office (CO) personnel, and CO Administrators.

How to check the version and issue of this document

The version and issue of the document are indicated by numbers, for example, 01.01.

The first two digits indicate the version. The version number increases each time the document is updated to support a new feature release. For example, the first release of the document is 01.01. In the *next* feature release cycle, the first release of the same document is 02.01.

The second two digits indicate the issue. The issue number increases each time the document is revised but rereleased in the *same* feature release cycle. For example, the second release of the document in the same feature release cycle is 01.02.

This document is written for all DMS-100 Family offices. More than one version of this document may exist. To determine whether you have the latest version of this document and how documentation for your product is organized, check the release information in *North American DMS-100 Northern Telecom Publications Cancellation Index*, 297-1001-001.

References in this document

The following documents are referred to in this document:

- *Distributed Processing Peripheral (DPP) Product Guide*, 297-1001-019.
- *Distributed Processing Peripheral (DPP) Alarm Clearing and Performance Guide*, 2971001-543.
- *Distributed Processing Peripheral (DPP) Card Replacement Guide*, 2971001-536.

- *Distributed Processing Peripheral (DPP) Administration Guide*, 2971001-331.
- *Distributed Processing Peripheral (DPP) Recovery and Routine Maintenance Procedures*, 297-1001-537.
- *Distributed Processing Peripheral (DPP) Operation, Administration and Maintenance Addendum*, P0813941.

How commands, parameters and responses are represented

Commands, parameters and responses in this document conform to the following conventions.

Input prompt (>)

An input prompt (>) indicates that the information that follows is a command:

>BSY

Commands and fixed parameters

Commands and fixed parameters that are entered at a Maintenance and Administration Position (MAP) terminal are shown in uppercase letters:

>BSY CTRL

Variables

Variables are shown in lowercase letters:

>BSY CTRL ctrl_no

The letters or numbers that the variable represents must be entered. Each variable is explained in a list that follows the command string.

DPP Command Quick Guide

This document provides a brief explanation of the maintenance interface to the DPP and a listing of the set of commands used for DPP maintenance.

Maintenance Interface

The Maintenance and Administration Position (MAP) terminal (from the DPP MAP level) and the DPP Emergency Access Terminal (EAT) provide the maintenance interface to the DPP.

MAP terminal

The DMS-100 connects to the DPP through the DPP level of MAP Command Interpreter (CI). The DPP MAP level is the standard tool for communicating with and maintaining the DPP. The MAP terminal is designed to accommodate system administration, maintenance and testing functions from a centralized location. Components of a MAP facility include the following:

- Visual Display Unit (VDU) with keyboard, which is used to directly interface with the DMS-100.
- Alarm panel providing a visual lamp display of alarms designated by class (major, minor, or critical) to maintenance personnel.

The MAP VDU displays an ongoing status report covering all major subsystems of the DMS-100 switching system, including the Command Control (CC), Input/Output (I/O) devices, networking and peripheral devices. The MAP VDU is driven by internal software in the DMS-100 switching system, which contains diagnostic routines. If a fault is detected, status information displays on the VDU. Figure 1-1 illustrates the MAP screen.

At the IOD (I/O Device) level of the MAP, menu item 11 selects the DPP level for which a data stream or DPP application must be specified as a parameter. From the CI level of the MAP, the following command sequence telescopes to the DPP MAP level:

```
>MAPCI;MTC;IOD;DPP AMA
```

**Figure 1-1
DPP MAP Display**

```

      CM   MS   IOD   Net   PM   CCS   Lns   Trks   Ext   APPL
      .    .    .    .    .    .    .    .    .    .

      DPP           IOD:
0  Quit           IOC   0  1  2  3  4  5  6  7  8  9
2  CP_           STAT  .  .  .  .  .  .  .  .  .  .
3  LSTDIR_
4  LSTACT_       DIRP:  .  XFER: .  SLM: .  NOP: .  NX25: .
5  REPORT_       MLP :  .  DPPP: .  DPPU: .  SCAI: .
6  TEST_
7
8
9  IDXMAINT
10 DSIMAIN
11 ERRMAP_
12 RSERR_
13 CLK_
14 VS_
15 LINKTEST
16 LoadDPP_
17 QueryDPP
18 RESETIO
      userid
TIME  hh:mm  MAP>

```

Note: The DPP MAP level can only be accessed by one user at any given time. An attempt to access the DPP MAP level while it is in use results in the following error message display:

```
DPP AMATPS IN USE.  USERNAME = user_name
```

where: user_name = current user of DPP MAP level.

Two modes, MAP mode and Direct mode are used from the DPP level of the MAP to access Automatic Message Accounting Teleprocessing System (AMATPS) or DPP commands. These modes are described below.

- MAP mode. There are two types of commands that can be accessed when in MAP mode:
 - DMS commands. These commands are checked for syntax by the CC and operated on by the DMS-100.
 - DPP commands. These commands are checked for syntax by the DMS-100 and sent to the DPP for processing.
- Direct mode. In this mode, the DPP operates on commands that are sent directly to the DPP. Since the DMS-100 does not check for syntax, this mode is recommended for experienced users only. To enter the Direct mode for the DPP MAP level, enter the command, SMODE. In the Direct mode, the MAP terminal simulates an EAT or Rover terminal.

When the DPP MAP level is initially accessed, the MAP level is in the MAP mode, indicated by the MAP> prompt at the bottom of the MAP display (see Figure 1-1). The operating mode of the DPP MAP is indicated by the command prompt: MAP> for the MAP mode, or DIRECT> for the Direct mode. The user can toggle between the MAP mode and the Direct mode using the SMODE command. In addition, Direct mode commands can be entered while in the MAP mode by preceding the command entry to be executed with a '\$'.

DPP alarms appear in the IOD field of the MAP display. DPP has two types of alarms, unit alarms and port alarms. The IOD status display shows the DPP unit alarms, which are indicated after the DPPU field, and the DPP port alarms, which are indicated after the DPPP field. The following table describes the standard DPP unit and port alarms.

Table 1-1
DPP unit and port alarms

Alarm	Type	Level	Description
AMA LK	Port	Major	Occurs when both DPP Man-Machine Interface (MMI) ports are unavailable, i.e., the maintenance links are down.
AMA PT	Port	Minor	Occurs when one DPP MMI port is unavailable.
AMA CR	Unit	Critical	Occurs when the highest level of alarm at the DPP unit is a critical alarm.

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Table 1-1
DPP unit and port alarms

Alarm	Type	Level	Description
AMA MJ	Unit	Major	Occurs when the highest level of alarm at the DPP unit is a major alarm.
AMA MN	Unit	Minor	Occurs when the highest level of alarm at the DPP unit is a minor alarm.

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DPPs that are equipped with the enhanced alarm cables report three additional unit alarms (low voltage alarm, thermal alarm for chassis A and thermal alarm for chassis B) to the IOD level. The text of the alarms are administered in the ALMSC table by the operating company during the datafill process. For more information on the enhanced alarm cables, refer to the *DPP Operation, Administration and Maintenance Addendum*.

Emergency Access Terminal

The EAT terminal enters DPP unit commands (software and firmware) in EAT mode directly to the DPP without a check for syntax. EAT mode accepts commands only in UPPERCASE letters. Entering commands in lower case letters results in failure of the DPP to accept those commands.

Commands

The DPP uses the following command types:

- DMS software commands
- DPP software commands
- short form software commands
- firmware commands

DMS software commands

The DMS software commands are only available in the MAP mode. The DMS software commands are described in the following table:

Table 1-2
DMS Alphabetic Software Command Listing

Command	Description
LINKTEST	Manually forces an audit of the DMS-100/DPP unit maintenance links and updates the port status if it is different than indicated.
LOADDPP BG	Specifies that the download process be performed in Background mode using the file from table DPP. Background allows the download process to run independently from MAP processes of the user. While the download process is being executed, the user can continue using the MAP. Check LOGUTIL (DPP logs) for error messages after LOADDPP BG completes execution.
LOADDPP BG filename	Specifies that a Switch Operation System (SOS) download file other than the file listed in table DPP be downloaded to the DPP in Background mode. filename = name of the SOS download file to be used in the DPP.
LOADDPP FG	Specifies that the download process be performed in Foreground mode using the file found in table DPP. Foreground suspends the user at the MAP for the duration of the download process. The user is not allowed to perform any other operations from the DPP MAP level during the download process. In foreground mode, download progress is reported through markers appearing at certain intervals in the download process.
LOADDPP FG filename	Specifies that an SOS download file other than the file listed in table DPP be downloaded to the DPP in Foreground mode. filename = name of the SOS download file to be used in the DPP.
LOADDPP HALT	Manually aborts a background download process currently in progress for the file found in table DPP.
LOADDPP HALT filename	Manually aborts a background download process currently in progress for an SOS download file other than the file found in table DPP. filename = name of the SOS download file to be used in the DPP.
QUERYDPP	Displays the DPP terminal controller port assignments, the current DPP terminal port status, the default DPP download file name and additional application information for the DPP unit.
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Table 1-2
DMS Alphabetic Software Command Listing

Command	Description
RESETIO	Used to recover the DMS-100 from a communication failure with the DPP because of port errors. This command reinitializes the DPP I/O system software to its startup data but does not mark the ports as in-service. When issued, all commands that have not yet been sent to the DPP are aborted. Audits are run automatically to verify the sanity of the ports after a period of inactivity following the execution of the RESETIO command. However, the user can manually run audits immediately after the execution of the RESETIO command by issuing the LINKTEST command. The ports will be marked as in-service if errors are not found during the audits.
REVIVE	Restarts all DMS-100 AMATPS processes.
REVIVE ALL	Restarts all DMS-100 AMATPS processes.
REVIVE DEAD	Restarts all DMS-100 AMATPS processes that are not currently operating.
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DPP software commands

The DPP software commands are divided into the following functional areas:

- Alarm operation commands
- Command execution control command
- Communication Processor (CP) commands
- Craftsperson assistance command
- Disk operation commands
- Direct Memory Access (DMA) commands
- Data Stream Interface (DSI) commands
- File index manipulation commands
- File manipulation commands
- Output control commands
- Polling link commands
- Processor activity command
- Read/write operation commands
- Site data entry commands

- Software version command
- Statistics commands
- System clock commands
- Test commands

The commands that make up these functional areas are listed in the subsections that follow. The parameters for these commands are listed in Table 1-3.

Alarm operation commands

The alarm operation commands return the DPP to a baseline operating state after error and alarm conditions have been encountered. The alarm operation commands are as follows:

- ERRMAP ACT
- ERRMAP ALARMS
- ERRMAP STDBY
- RSERR ACT
- RSERR STDBY

Command execution control command

The command execution control command, as listed below, halts the execution of an in-progress DPP command. This command is available only in Direct mode.

- HXDPP

CP commands

The following CP commands are used only on Turbo DPP systems:

- CP BOOT ACT
- CP BOOT ADD
- CP BOOT DELETE
- CP BOOT LIST
- CP BOOT STDBY
- CP CLOCK
- CP EXAMINE
- CP INTERFACE
- CP LOOP ACT

- CP LOOP STDBY
- CP MEMWRITE
- CP TEST ACT
- CP TEST STDBY
- CP VS ACT
- CP VS STDBY

Craftsperson assistance command

The Craftsperson assistance command, as listed below, can be used to provide a quick-reference of any DPP software commands. This command is available only in the Direct mode.

- HELP

Disk operation commands

Disk operation commands are used to control the activity of the hard disk(s). These commands are intended primarily for installation and maintenance functions. The disk operation commands are as follows:

- DISK DEFMAP
- DISK EXAMINE
- DISK FORMAT
- DISK INIT
- DISK IOREAD
- DISK IOWRITE
- DISK JUMP
- DISK MEMWRITE
- DISK MODE
- DISK PARAM
- DISK RESTART
- DISK USAGE
- DISK VS

DMA commands

The DMA commands are used to examine or change the data stored in the DPP Random Access Memory (RAM). These commands are intended primarily for the maintenance function. DMA commands can examine or write to memory. The DMA commands are as follows:

- DMASTAT IMMED
- DMASTAT LAST

DSI commands

The DSI commands relate to the control and examination of the characteristics of the circuits that interface the DPP with the DMS-100. The DSI commands are as follows:

- DSIMAIN EXAMINE
- DSIMAIN IOREAD
- DSIMAIN IOWRITE
- DSIMAIN MEMWRITE
- DSIMAIN SELECT
- DSIMAIN SHOW
- DSIRAM

File index manipulation commands

File index manipulation commands verify, examine, create, or edit index files that are created to keep track of files generated by the DPP and received from call records from the DMS-100. The file index manipulation commands are as follows:

- IDXMAINT CHECK
- IDXMAINT CLOSE
- IDXMAINT CREATE DIR
- IDXMAINT CREATE FILE
- IDXMAINT DELETE
- IDXMAINT DIR CLOSED
- IDXMAINT DIR OPEN
- IDXMAINT EXAMINE
- IDXMAINT SUMMARY

File manipulation commands

File manipulation commands examine or change disk file parameters. The file manipulation commands are as follows:

- CLSACT
- DELFILE
- DMPFILE
- LSTACT
- LSTDIR ACT
- LSTDIR ALL
- LSTDIR FILE

Output control commands

The output control commands are used to control the output destination of DPP information. The output control commands are as follows:

- HTDPP
- RTDPP

Polling link commands

The polling link commands provide control of the port and activity of the Host Office Collector (HOC) polling link. The polling link commands are as follows:

- LINIT
- LNKDSC

Processor activity commands

The processor activity commands allows the user switch from one active processor to another. The processor activity commands are as follows:

- SWACT
- SWACT FORCE

Read/write operation commands

Read/write commands provide maintenance functions to the user that allow access to the DPP system functional components for diagnostic and fault isolation purposes. The read/write operation commands are as follows:

- SYSUTIL EXAMINE

- SYSUTIL IOREAD
- SYSUTIL IOWRITE
- SYSUTIL MEMWRITE

Site data entry commands

Site data entry commands are used during installation and testing to tailor the DPP to the telephone company site. These commands allow the user to define the DMS-100 associated with the DPP, and match the DPP operating parameters with the characteristics of the particular telephone company site. The site data entry commands are as follows:

- AMAHRS
- AMATPSW
- BAUD
- BX25PARAM R20
- BX25PARAM R22
- BX25PARAM T20
- BX25PARAM T22
- BX25PARAM T24
- BX25PARAM PRIHDR
- BX25PARAM PRIHDR1
- BX25PARAM PRIHDR2
- COLLPSW
- SITDAT READ
- SITDAT WRITE
- VALPARAM BLOCKS
- VALPARAM INVALID
- VALPARAM LOGHDR

Software version commands

The software version commands are included for diagnostic and support purposes. These commands display the version of the firmware and software the DPP is running. The software version commands are as follows:

- VS ACT
- VS STDBY

Statistics commands

The statistics commands provide a means of obtaining and printing summaries of critical system activities on a daily basis. CARDLIST is only available in the Direct mode. Reports can be obtained for a given day or the previous day. The statistics commands are as follows:

- CARDLIST
- CLRSTATS
- REPORT

System clock commands

The system clock commands are used to examine or change the internal or external clock setting for the DPP. These commands are used to maintain date and time stamping of DPP activities, log message, and time synchronization.

- ACR (only available on Non-Turbo DPP systems with 72-, 140- and 380-Mbyte disk drives)
- CLK ACT
- CLK STDBY
- SETCLK

Test commands

The test commands provide a low level of diagnostics. These commands are used to verify the operating condition of major components of the DPP. The test commands are as follows:

- DPRTEST
- TEST ACT
- TEST STDBY

The following table lists the software commands available on the DPP. Commands appear in capital letters. Variables appear in lower case letters. Commands preceded by a '\$' are available only in Direct mode.

Table 1-3
DPP Alphabetical Software Command Listing

Command	Description
\$ACR	Restores the DPP unit clock after an ac power failure (if ac has been restored). <i>This command is available only in Non-Turbo DPPs with 72-, 140-, and 380-Mbyte disk drives.</i>
AMAHRS	Displays the time interval to verify that Automatic Message Accounting (AMA) records have been received from the Switching System.
AMAHRS start stop	Sets the time interval to verify that AMA records have been received from the Switching System. The command requires the start and end times to perform the check and the amount of time that can pass before an alarm is generated when blocks are not received. If a data block has not been received within the specified interval between the hour boundaries, an alarm is generated. Times are based on a 24 hour clock (00 to 23). start = two-digit start time. Range: 00-23 stop = two-digit end time. Range: 00-23
AMATPSW	Displays the current AMA Transmitter (AMAT) password
AMATPSW sen_type sen_id	Changes the AMAT password, which is sent to the HOC at the start of a polling session to identify the DPP and the records polled to the HOC. sen_type = four digit decimal value that specifies sensor type. Range: 0-9,999. sen_id = six digit decimal value that specifies sensor identification. Range: 0-999,999
BAUD	Displays the current baud data.
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**Table 1-3
DPP Alphabetical Software Command Listing**

Command	Description
BAUD link rate	<p>Changes the polling baud rate for a specific polling link. This baud rate is only used when the DPP is running on its internal clock.</p> <p>link = one digit decimal that defines the link number. Currently the valid values are 1 for Non-Turbo systems and 1 or 2 for Turbo (56K) systems.</p> <p>rate = four-digit value that defines the baud rate. Currently the valid values are 1200, 2400, 4800, 9600, or 56K.</p>
BX25PARAM R20	Displays the current value of the restart request retransmission count.
BX25PARAM R20 value	<p>Changes the value of the restart request retransmission count.</p> <p>value = new value for specified parameter. Range: 1-255.</p>
BX25PARAM R22	Displays the current value of the restart reset response timer.
BX25PARAM R22 value	<p>Changes the value of the restart reset response timer.</p> <p>value = new value for specified parameter. Range: 1-255.</p>
BX25PARAM T20	Displays the current value of the restart request response timer.
BX25PARAM T20 value	<p>Changes the value of the restart request response timer.</p> <p>value = new value for specified parameter. Range: 1-255.</p>
BX25PARAM T22	Displays the current value of the reset request response timer.
BX25PARAM T22 value	<p>Changes the value of the reset request response timer.</p> <p>value = new value for specified parameter. Range: 1-255.</p>
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Table 1-3
DPP Alphabetical Software Command Listing

Command	Description
BX25PARAM T24	Displays the current value of the window status transmission timer.
BX25PARAM T24 value	Changes the value of the window status transmission timer. value = new value for specified parameter. Range: 1-255.
\$BX25PARAM PRIHDR	Displays the current definition of the Number of Blocks remaining field, either PRIHDR1 or PRIHDR2. <i>This command is available only on DPP systems equipped with the AMAT90 Feature.</i>
\$BX25PARAM PRIHDR1	Sets the definition of the Number of Blocks Remaining field to the number of primary blocks residing in storage before the file is sent. This definition meets the 1986 AMATPS requirements. This is the default value. <i>This command is available only on DPP systems equipped with the AMAT90 Feature.</i>
\$BX25PARAM PRIHDR2	Sets the definition of the Number of Blocks Remaining field to the number of primary blocks that will remain after the file is sent. This definition meets the 1990 AMATPS requirements. <i>This command is available only on DPP systems equipped with the AMAT90 Feature.</i>
\$CARDLIST	Provides a detailed listing of the eight circuit cards in the DPP chassis. This listing includes circuit card abbreviated designations, locations and part numbers. This command is entered in the DPP MAP Direct mode or from the DPP EAT.
CLK ACT	Displays the DPP unit time in the active DPP processor.
CLK STDBY	Displays the DPP unit time in the standby DPP processor.
CLRSTATS	Clears the DPP statistics files for AMA, MMI and disk data for the current day.
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**Table 1-3
DPP Alphabetical Software Command Listing**

Command	Description
CLSACT file_id	<p>Closes the specified active file. A closed file can no longer be accessed. It is important that the file to be closed does not contain data that has to be retrieved. A list of active files can be obtained using the LSTACT command.</p> <p>file_id = two digit decimal value that specifies file identification. Range: 1-15.</p>
COLLPSW	<p>Displays the current HOC passwords.</p>
COLLPSW list_no off_type off_id	<p>Assigns the HOC passwords. Two HOC passwords are available. The HOC password is used to identify the polling HOC to the DPP. This password is used to authorize access to DPP record blocks.</p> <p>list_no = one digit decimal value that specifies password list number. Range: 1-2.</p> <p>off_type = four character hexadecimal string that identifies recording office type. Range: #0-#FFFF (MAP, Direct and EAT modes) or 0-FFFF (Direct and EAT modes).</p> <p>off_id = six character hexadecimal string that identifies the recording office. Range: #0-#FFFFFF (MAP, Direct and EAT modes) or 0-FFFFFF (Direct and EAT modes)</p>
CP BOOT ACT	<p>Loads the contents of the BOOTCP file to the active 56K CP. <i>This command is available only on Turbo DPP systems.</i></p>
CP BOOT ADD fname ver	<p>Adds a new file name to the BOOTCP file. <i>This command is available only on Turbo DPP systems.</i></p> <p>fname = six character load file name.</p> <p>ver = 1 to 2 digit decimal file version number. Range: 1-99.</p>
CP BOOT DELETE	<p>Removes the last file name from the BOOTCP file. <i>This command is available only on Turbo DPP systems.</i></p>
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Table 1-3
DPP Alphabetical Software Command Listing

Command	Description
CP BOOT LIST	Displays the contents (file names) of the BOOTCP file. <i>This command is available only on Turbo DPP systems.</i>
CP BOOT STDBY	Loads the contents of the BOOTCP file to the standby 56K CP. <i>This command is available only on Turbo DPP systems.</i>
CP CLOCK	Displays the source of the 56K CP clock used in polling for a specific link. <i>This command is available only on Turbo DPP systems.</i>
CP CLOCK link source	<p>Changes source of clock used in polling for a specific link. If set to EXTERNAL, the DPP uses external device for its clock source. If set to INTERNAL, the DPP uses the baud rate specified when the BAUD command was entered to generate its own transmit clock. <i>This command is available only on Turbo DPP systems.</i></p> <p>link = one digit decimal number. Range: 1-2. source = INTERNAL or EXTERNAL clock source.</p>
CP EXAMINE mem_addr lines	<p>Displays the contents of a specified area of the 56K CP's memory. <i>This command is available only on DPP Turbo systems.</i></p> <p>mem_addr = memory address. Range: 0-1FFFF (128K system), 0-3FFFF (256K system) or 0-7FFFF (512K system).</p> <p>lines = number of lines of data desired starting at specified address, with each line containing sixteen bytes. Range: 1-16.</p>
CP INTERFACE	Displays the currently assigned CP interface. <i>This command is available only on Turbo DPP systems.</i>
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**Table 1-3
DPP Alphabetical Software Command Listing**

Command	Description
CP INTERFACE link interface	<p>Sets the type of interface used in polling for a specific link. RS-232 and V.35 interfaces are available for use in the CP's polling port. <i>This command is available only on Turbo DPP systems.</i></p> <p>link = one digit decimal number. Range: 1-2.</p> <p>interface = RS232 for 1200 through 9600 baud or V35 for 1200 through 9600 and 56K baud (must be used when 56K polling is selected).</p>
CP LOOP ACT	<p>Tests the Reliable File Transfer (RFT) interface between the Main Processor (MP) and the active 56K CP by sending a 1531 byte test data block to the active 56K CP, returning it to the MP, and validating the data content. <i>This command is available only on Turbo DPP systems.</i></p>
CP LOOP STDBY	<p>Tests the RFT interface between the MP and the standby 56K CP by sending a 1531 byte test data block to the standby 56K CP, returning it to the MP, and validating the data content. <i>This command available only on Turbo DPP systems.</i></p>
CP MEMWRITE mem_addr data	<p>Writes data to a specific CP memory address. <i>This command is available only on Turbo DPP systems.</i></p> <p>mem_addr = memory address. Range: 0-1FFFF (128K system), 0-3FFFF (256K system) or 0-7FFFF (512K system).</p> <p>data = data bytes to be written starting at the specified address, with a space dividing each byte.</p>
CP TEST ACT	<p>Starts a series of tests run on the active 56K CP. These tests cannot be run at the same time. Test results are reported. <i>This command is available only on Turbo DPP systems.</i></p>
CP TEST STDBY	<p>Starts a series of tests be run on the standby 56K CP. These tests cannot be run at the same time. Test results are reported. <i>This command is available only on Turbo DPP systems.</i></p>

Table 1-3
DPP Alphabetical Software Command Listing

Command	Description
CP VS ACT	Displays the version of the software and firmware programs loaded on the active 56K CP. <i>This command is available only on Turbo DPP systems.</i>
CP VS STDBY	Displays the version of the software and firmware programs loaded on the standby 56K CP. <i>This command is available only on Turbo DPP systems.</i>
DELFILE name ver	Deletes a specified file from the DPP system directory. name = six character variable that specifies the file name. ver = decimal value that specifies the file version. Range: 0 and 1-255 (version 0 is the latest version).
DELFILE name ver1 ver2	Deletes a range of version numbers of a specified file from the DPP system directory. name = six character variable that specifies the file name. ver1 = specifies the beginning of the range of version numbers to be deleted. Range: 1-255. ver2 = specifies the end of the range of version numbers to be deleted. Range: 1-255 (must be greater than ver1).
\$DISK DEFMAP drive	Allows manual entry of bad disk tracks from the manufacturer's defect map. The disk drive specified must correspond to the disk drive just initialized. This function is normally performed immediately after a disk has been initialized. This parameter can only be used in the Direct mode. <i>This command can only be used on Non-Turbo DPP systems with 72-, 140-, and 380-Mbyte disk drives.</i> drive = one character variable that specifies disk drive A or B.
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**Table 1-3
DPP Alphabetical Software Command Listing**

Command	Description
\$DISK EXAMINE addr bytes	<p>Examines disk memory by displaying sixteen bytes of memory starting at a specified address. <i>This command is used only on Turbo DPP systems and Non-Turbo DPP systems with 1-Gbyte disk drives.</i></p> <p>addr = hexadecimal number that specifies the address. Range: #0-#FFFF (MAP, Direct and EAT modes) or 0-FFFF (Direct and MAP modes).</p> <p>bytes = decimal value that specifies the number of bytes to examine. Range #1-#63 (Hexadecimal range for MAP, Direct and EAT modes) or 1-99 (Decimal range for MAP, Direct and EAT modes).</p>
DISK FORMAT drive	<p>Formats the specified disk drive. <i>This command should not be used with Non-Turbo DPP systems with 380-Mbyte disk drives.</i></p> <p>drive = one character variable that specifies disk drive A or B.</p>
\$DISK INIT 1drive	<p>Initializes a selected disk drive by establishing a bad track map without performing a disk test. <i>This command can only be used on Non-Turbo DPP systems with 72-, 140-, and 380-Mbyte disk drives.</i></p> <p>drive = one character variable that specifies disk drive A or B.</p>
\$DISK IOREAD port	<p>Displays the contents of the specified I/O port address. <i>This command is used only on Turbo DPP systems and Non-Turbo DPP systems with 1-Gbyte disk drives.</i></p> <p>port = hexadecimal number that specifies the I/O port address. Range: #0-#FF (MAP, Direct and EAT modes) or 0-FF (Direct and EAT modes).</p>
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Table 1-3
DPP Alphabetical Software Command Listing

Command	Description
DISK IOWRITE port data	<p>Writes specified data to the specified I/O port address. <i>This command is used only on Turbo DPP systems and Non-Turbo DPP systems with 1-Gbyte disk drives.</i></p> <p>port = hexadecimal number that specifies the I/O port address. Range: #0-#FF (MAP, Direct and EAT modes) or 0-FF (Direct and EAT modes).</p> <p>data = specifies the data to be written. Range: 0-255 (Decimal range for MAP mode), #0-#FF (Hexadecimal range for MAP, Direct and EAT modes) or 0-FF (Hexadecimal range for Direct and EAT modes).</p>
\$DISK JUMP addr executions	<p>Causes the disk interface to begin execution at a specified address. <i>This command can only be used on Non-Turbo DPP systems with 72-, 140-, and 380-Mbyte disk drives.</i></p> <p>addr = hexadecimal number that specifies the address. Range: #0-#FFFF (MAP, Direct and EAT modes) or 0-FFFF (Direct and MAP modes).</p> <p>executions = specifies the number of time the execution repeats. Range: 0-255 (Decimal range for MAP, Direct or EAT modes) or #0-#FF (Hexadecimal range for MAP, Direct or EAT modes)</p>
\$DISK MEMWRITE addr datalist	<p>Writes a specified data string to memory starting at a specified address. <i>This command is used only on Turbo DPP systems and Non-Turbo DPP systems with 1-Gbyte disk drives.</i></p> <p>addr = hexadecimal number that specifies the address. Range: #0-#FFFF (MAP, Direct and EAT modes) or 0-FFFF (Direct and MAP modes).</p> <p>datalist = string of hexadecimal data elements. There is a limit of sixteen data elements. Each data element has a range of #0-#FF (MAP, Direct and EAT modes) or 0-FF (Direct or EAT modes).</p>
DISK MODE	Displays the current disk mode.
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**Table 1-3
DPP Alphabetical Software Command Listing**

Command	Description
DISK MODE value	<p>Sets the disk mode to the specified value.</p> <p>value = specifies the disk mode value. Can be one of the following:</p> <p>AP - A Prime (read and write to A and copy to B) BP - B Prime (read and write to B and copy to A) AO - A Only (read and write to A only) BO - B Only (read and write to B only)</p>
\$DISK PARAM disk_type	<p>Sets the disk-dependent parameters for the disk type used in the system. <i>This command can only be used on Non-Turbo DPP systems with 72-, 140-, and 380-Mbyte disk drives.</i></p> <p>disk_type = one-digit value that specifies the disk type. The following values are valid:</p> <p>5 - VERTEX V170 (72-Mbytes) 6 - MAXTOR XY1085 (72-Mbytes) 7 - MAXTOR 1140 (140-Mbytes) 8 - 380-Mbyte disk 9 - Other</p> <p>If Other is selected, the following must be entered from the Direct mode:</p> <p>DISK PARAM 9 pulse period mode head cylinder RWCCyl interleave sector</p> <p>pulse = step pulse width in microseconds (integer) period = step period times 50 microseconds (integer) mode = step mode. Range: 0-2. head = number of heads. Range: 0-8. cylinder = number of cylinders. Range: 1-65,535. RWCCyl = number of RWC cylinders. Range: 1-65,535. interleave = interleave factor. Range: 1-16. sector = disk sector type. Can be one of the following:</p> <p>HARD - Hard sector disk type SOFT - Soft sector disk type</p>
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Table 1-3
DPP Alphabetical Software Command Listing

Command	Description
\$DISK RESTART	Restarts the Small Computer System Interface (SCSI) Interface card to perform a disk reset. <i>This command is used only on Turbo DPP systems and Non-Turbo DPP systems with 1-Gbyte disk drives.</i>
DISK USAGE	Displays the number of allocation units on the disk that have been used, compared to the total number of allocation units available, and lists the number of bad allocation units for both processors.
DISK VS	Displays the current disk interface program version.
DMASTAT IMMED	Displays the current operating parameters of the DPP system memory.
DMASTAT LAST	Displays the DMA status at the end of the last transfer.
DMPFILE name ver start count	<p>Displays a specified number of blocks from a specific file for examination. This command can be used to verify the integrity of files stored on the DPP. The contents of the file are formatted in hexadecimal and ASCII for output.</p> <p>name = six-character variable that specifies the file name.</p> <p>ver = specifies the file version number. Range: 0-255 (0 is the latest version).</p> <p>start = specifies the starting block. Range: 0-999,999.</p> <p>count = specifies the number of blocks to dump. Range: 0-9,999</p>
DPRTEST	Tests the Dual-Ported RAM. This test is run by the standby processor on the memory on the standby side; run automatically at 50 minutes after the hour, every hour
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Table 1-3
DPP Alphabetical Software Command Listing

Command	Description
DSIMAIN EXAMINE side addr	<p>Displays data at a specified address.</p> <p>side = one digit number that specifies a DSI circuit card. The value can be 1 (DSI in slot XH13) or 2 (DSI in slot XA12).</p> <p>addr = hexadecimal number that specifies the address. Range: #0-#FFFF (MAP, Direct and EAT modes) or 0-FFFF (Direct and MAP modes).</p>
DSIMAIN IOREAD side port	<p>Displays data from a specified port.</p> <p>side = one digit number that specifies a DSI circuit card. The value can be 1 (DSI in slot XH13) or 2 (DSI in slot XA12).</p> <p>port = decimal number that specifies a port. Range: 0-255.</p>
DSIMAIN IOWRITE side port data	<p>Writes data to a specified DSI port address.</p> <p>side = one digit number that specifies a DSI circuit card. The value can be 1 (DSI in slot XH13) or 2 (DSI in slot XA12).</p> <p>port = decimal number that specifies a port. Range: 0-255.</p> <p>data = hexadecimal number that specifies the data to be written. Range: #0-#FF (MAP, Direct and EAT modes) or 0-FF (Direct and EAT modes).</p>
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Table 1-3
DPP Alphabetical Software Command Listing

Command	Description
DSIMAIN MEMWRITE side addr data	<p>Displays data at a specified address.</p> <p>side = one digit number that specifies a DSI circuit card. The value can be 1 (DSI in slot XH13) or 2 (DSI in slot XA12).</p> <p>addr = hexadecimal number that specifies the address. Range: #0-#FFFF (MAP, Direct and EAT modes) or 0-FFFF (Direct and MAP modes).</p> <p>data = string of hexadecimal data elements. There is a limit of sixteen data elements. Each data element has a range of #0-#FF (MAP, Direct and EAT modes) or 0-FF (Direct or EAT modes).</p>
DSIMAIN SELECT side	<p>Selects a DSI port for maintenance.</p> <p>side = one digit number that specifies a DSI circuit card. The value can be 1 (DSI in slot XH13) or 2 (DSI in slot XA12).</p>
DSIMAIN SHOW side ERROR	<p>Displays the cyclic redundancy check, parity and communication DSI errors from the specified DSI.</p> <p>side = one digit number that specifies a DSI circuit card. The value can be 1 (DSI in slot XH13) or 2 (DSI in slot XA12).</p>
DSIMAIN SHOW side STATUS	<p>Displays the last command, status and number of block received from the specified DSI.</p> <p>side = one digit number that specifies a DSI circuit card. The value can be 1 (DSI in slot XH13) or 2 (DSI in slot XA12).</p>
DSIMAIN SHOW side VS	<p>Displays the program version from the specified DSI.</p> <p>side = one digit number that specifies a DSI circuit card. The value can be 1 (DSI in slot XH13) or 2 (DSI in slot XA12).</p>
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**Table 1-3
DPP Alphabetical Software Command Listing**

Command	Description
DSIRAM format	<p>Examines the latest block in the DPP memory. This command can be used as part of the maintenance function to verify the integrity of a block received from the DMS-100. This command examines the DSI input data buffer.</p> <p>format = specifies the format of the output. The valid values are listed below:</p> <p>ASCII EBCDIC HEX PACKED</p>
ERRMAP ACT	<p>Displays a list of alarms, their current level assignments, and indicates whether they are currently asserted for the active DPP processor.</p>
ERRMAP ACT event alarm level	<p>Changes the alarm type and/or alarm level for a specified device or event number on the active DPP processor.</p> <p>event = three digit number that specifies the device or event number. Range: 1-255.</p> <p>alarm = specifies the alarm type assigned to a particular device or event number. The following alarm types are valid:</p> <p>INHIBIT MINOR MAJOR CRITICAL</p> <p>level = one digit number that indicates the seriousness of the fault. Range: 0-3 (3 is the highest alarm level).</p>
ERRMAP ALARMS	<p>Displays a list of alarms that have been asserted on both DPP processors.</p>
ERRMAP STDBY	<p>Displays a list of alarms, their current level assignments, and indicates whether they are currently asserted for the standby DPP processor.</p>
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Table 1-3
DPP Alphabetical Software Command Listing

Command	Description
ERRMAP STDBY event alarm level	<p>Changes the alarm type and/or alarm level for a specified device or event number on the standby DPP processor.</p> <p>event = three digit number that specifies the device or event number. Range: 1-255.</p> <p>alarm = specifies the alarm type assigned to a particular device or event number. The following alarm types are valid:</p> <p style="text-align: center;">INHIBIT MINOR MAJOR CRITICAL</p> <p>level = one digit number that indicates the seriousness of the fault. Range: 0-3 (3 is the highest alarm level).</p>
\$HELP	<p>Displays a list of all commands that are available to the user. <i>This command is available on Turbo DPP systems and Non-Turbo DPP systems with 1-Gigabyte disk drives.</i></p>
\$HTDPP	<p>Inhibits the display of DPP output to the DMS-100 switch MAP.</p>
\$HXDPP	<p>Aborts the execution of an in-progress foreground command that produces a large amount of output.</p>
IDXMAINT CHECK typ	<p>Checks the specified index file.</p> <p>typ = specifies the file type. Valid values for the file type are as follows:</p> <p style="text-align: center;">AMA LOG EXC</p>
IDXMAINT CLOSE	<p>Closes the index file that is currently open.</p>
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**Table 1-3
DPP Alphabetical Software Command Listing**

Command	Description
IDXMAINT CREATE DIR typ ver seq	<p>Creates a new index file.</p> <p>typ = specifies the file type. Valid values for the file type are as follows:</p> <p style="padding-left: 40px;">AMA LOG EXC</p> <p>ver = three digit number that specifies the starting file version number of the specified data file. Range: 1-255.</p> <p>seq = specifies the sequence number of the first unpolled block. Range: 0-999,999</p>
IDXMAINT CREATE FILE typ	<p>Creates a new file for writing call records or log messages.</p> <p>typ = specifies the file type. Valid values for the file type are as follows:</p> <p style="padding-left: 40px;">AMA LOG EXC</p>
IDXMAINT DELETE typ	<p>Deletes the oldest indexed data file, if secondary.</p> <p>typ = specifies the file type. Valid values for the file type are as follows:</p> <p style="padding-left: 40px;">AMA LOG EXC</p>
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Table 1-3
DPP Alphabetical Software Command Listing

Command	Description
IDXMAINT DIR CLOSED typ ver	<p>Prints the status of the specified range of closed call or log files.</p> <p>typ = specifies the file type. Valid values for the file type are as follows:</p> <p style="padding-left: 40px;">AMA LOG EXC</p> <p>ver = decimal number that specifies the number of file versions requested. Range: 1-56 (Non-Turbo systems with 72-, 140- and 380-Mbyte disk drives) or 1-255 (Turbo and 1-Gigabyte Non-Turbo systems).</p>
IDXMAINT DIR CLOSED typ LAST ver	<p>Prints the status of the specified range of closed call or log files, starting from the end of the index file. <i>This command is used only on Turbo DPP systems and Non-Turbo DPP systems with 1-Gigabyte disk drives</i></p> <p>typ = specifies the file type. Valid values for the file type are as follows:</p> <p style="padding-left: 40px;">AMA LOG EXC</p> <p>ver = three digit number that specifies the number of file versions requested. Range: 1-255.</p>
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**Table 1-3
DPP Alphabetical Software Command Listing**

Command	Description
IDXMANT DIR CLOSED typ NEXT ver	<p>Prints the status of the specified range of closed call or log files, starting from the next version in the index file. <i>This command is used only on Turbo DPP systems and Non-Turbo DPP systems with 1-Gigabyte disk drives</i></p> <p>typ = specifies the file type. Valid values for the file type are as follows:</p> <p style="padding-left: 40px;">AMA LOG EXC</p> <p>ver = three digit number that specifies the number of file versions requested. Range: 1-255.</p>
IDXMANT DIR OPEN typ	<p>Prints the status of the specified open call or log file.</p> <p>typ = specifies the file type. Valid values for the file type are as follows:</p> <p style="padding-left: 40px;">AMA LOG EXC</p>
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Table 1-3
DPP Alphabetical Software Command Listing

Command	Description
IDXMAINT EXAMINE typ format seq	<p>Examines selected blocks from the DPP disk.</p> <p>typ = specifies the file type. Valid values for the file type are as follows:</p> <p style="padding-left: 40px;">AMA LOG EXC</p> <p>format = specifies the format of the output. The valid values are listed below:</p> <p style="padding-left: 40px;">ASCII EBCDIC HEX PACKED MSG</p> <p>seq = six digit decimal number that specifies the sequence number. Range: 0-999,999</p>
\$IDXMAINT EXAMINE typ HDR seq	<p>Examines the header of the block starting at the specified sequence number.</p> <p>typ = specifies the file type. Valid values for the file type are as follows:</p> <p style="padding-left: 40px;">AMA LOG EXC</p> <p>seq = six digit decimal number that specifies the sequence number. Range: 0-999,999.</p>
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**Table 1-3
DPP Alphabetical Software Command Listing**

Command	Description
IDXMAINT EXAMINE typ NEXT rng	<p>Examines the sequential record blocks.</p> <p>typ = specifies the file type. Valid values for the file type are as follows:</p> <p style="padding-left: 40px;">AMA LOG EXC</p> <p>rng = specifies the range of blocks to be examined. Range: 1-255</p>
IDXMAINT EXAMINE LOG DATE dy	<p>Examines a log message specified by date.</p> <p>dy = decimal value that specifies the day of the month. Range: 0-31 (0 is the oldest log).</p>
IDXMAINT EXAMINE LOG HOUR t	<p>Examines a log message specified by time. The log file that contains the specified log message must be active (listed in the LSTACT response) for this command to function.</p> <p>t = decimal value that specifies the time. Range: 0-24 (24 gives the log for the next day).</p>
IDXMAINT EXAMINE LOG MSG In	<p>Examines a log message specified by log number. The log file that contains the specified log message must be active (listed in the LSTACT response) for this command to function.</p> <p>In = specifies the number of a log message. Range: 0-255 (decimal range for MAP mode) or #0-#FF (hexadecimal range for MAP, Direct or EAT modes).</p>
IDXMAINT SUMMARY typ	<p>Prints a summary of the index files and the oldest version with records to poll.</p> <p>typ = specifies the file type. Valid values for the file type are as follows:</p> <p style="padding-left: 40px;">AMA LOG EXC</p>
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Table 1-3
DPP Alphabetical Software Command Listing

Command	Description
LINIT	Initializes the data areas used for the collection of incoming frames from the incoming BX.25 polling link. This command should be entered immediately after the LNKDSC command.
LNKDSC	Causes the DTR on the active link to drop for five seconds, which disconnects the link. Use of this command will abort a polling session in progress. This command should be immediately followed by the LINIT command.
LSTACT	Displays a list of all currently open data files.
LSTDIR ACT file_id	Displays the active file entry. file_id = decimal value that specifies the file identification. Range: 1-16.
LSTDIR ALL	Displays a list of all files contained in the disk directory.
LSTDIR FILE name ver	Displays the directory entry of a specified file. name = six character value that specifies the file name. ver = decimal value that specifies the file version. Range: 0 and 1-255 (version 0 is the latest version).
LSTDIR FILE name ver1 ver2	Displays the directory entry of a specified range of files. name = six character value that specifies the file name. ver1 = decimal value that specifies the beginning of the range of file versions. Range: 1-255. ver2 = decimal value that specifies the ending of the range of file versions. Range: 1-255 (must be larger than ver1).
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**Table 1-3
DPP Alphabetical Software Command Listing**

Command	Description
REPORT typ period	<p>Displays a specified report type for a specified report period.</p> <p>typ = specifies the report type. The following values are valid for this command:</p> <p style="padding-left: 40px;">AMA DISK MMI</p> <p>period = specifies the report period. The period can be either TDAY for the current day or YDAY for the previous day.</p>
RSERR ACT event	<p>Clears the asserted event or device alarms for the active DPP processor after the alarm condition is no longer present.</p> <p>event = two digit event or device alarm number (output by the ERRMAP command). Event number 00 is used to clear all asserted alarms.</p>
RSERR STDBY event	<p>Clears the asserted event or device alarms for the standby DPP processor after the alarm condition is no longer present.</p> <p>event = two digit event or device alarm number (output by the ERRMAP command). Event number 00 is used to clear all asserted alarms.</p>
\$RTDPP	<p>Returns DPP output to the DMS-100 MAP level after a previous HTDPP command.</p>

Table 1-3
DPP Alphabetical Software Command Listing

Command	Description
SETCLK yr mn date hr min sec day	<p>Sets the DPP clock. The SETCLK command can be prompted by the ACR command, or can be used anytime the DPP clock needs to be set.</p> <p>yr = two digit value that specifies the year. Range: 00-99.</p> <p>mn = value that specifies the month. Range: 1-12.</p> <p>date = value that specifies the date. Range: 1-31.</p> <p>hr = value that specifies the hour. Range: 0-23.</p> <p>min = value that specifies the minute. Range: 0-59.</p> <p>sec = value that specifies the second. Range: 0-59.</p> <p>day = three character value that specifies the day of the week. The following values are valid:</p> <p>MON TUE WED THU FRI SAT SUN</p>
SITDAT READ	<p>Reads (restores) site data parameters from DPP disk and overwrites site data stored in main memory (RAM). Upon execution, changes made since the last SITDAT WRITE are overwritten by the values stored on the disk. A site data read is done automatically on DPP power up, processor switch, processor reset, and at an hour boundary. Multiple site data files may exist; however, the system only recognizes the most recent site data file.</p>
SITDAT WRITE	<p>Updates (saves) site information entered in the DPP and writes site data from memory to disk.</p>
SWACT	<p>Reassigns the current active processor (A to B or B to A).</p>
SWACT FORCE	<p>Resets the alarms on the standby DPP processor and performs a processor switch.</p>
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Table 1-3
DPP Alphabetical Software Command Listing

Command	Description
SYSUTIL EXAMINE a pg add nline	<p>Examines the specified data at the specified address.</p> <p>a = one character value that specifies the space type. The space type can be either P, for program space, or D, for data space.</p> <p>pg = value that specifies the page in memory. Range: 0 or 2-7 (if pages 2-7 are used, a Dynamic RAM (DRAM) error may occur, resulting in an activity switch). This value is required only for data space.</p> <p>add = hexadecimal value that specifies the address. Range: #0-#FF (MAP, Direct or EAT modes) or 00FF-FFFF (Direct and EAT modes).</p> <p>nline = value that specifies the number of lines to be displayed.</p>
SYSUTIL IOREAD port	<p>Reads data from a specified I/O port.</p> <p>port = value that specifies the port. Range: 0-255 (decimal range for MAP mode), #0-#FF (hexadecimal range for MAP, Direct, and EAT modes), or 0-FF (hexadecimal range for Direct and EAT modes).</p>
SYSUTIL IOWRITE port data	<p>Writes data to a specified I/O port.</p> <p>port = value that specifies the port. Range: 0-255 (decimal range for MAP mode), #0-#FF (hexadecimal range for MAP, Direct, and EAT modes), or 0-FF (hexadecimal range for Direct and EAT modes).</p> <p>data = hexadecimal value that specifies the data byte to be written. Range: #0-#FF (MAP, Direct or EAT modes) or 00-FF (Direct and EAT modes).</p>
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Table 1-3
DPP Alphabetical Software Command Listing

Command	Description
SYSUTIL MEMWRITE a pg add dls	<p>Writes the specified data at the specified address in RAM.</p> <p>a = one character value that specifies the space type. The space type can be either P, for program space, or D, for data space.</p> <p>pg = value that specifies the page in memory. Range: 0 or 2-7 (if pages 2-7 are used, a DRAM error may occur, resulting in an activity switch). This value is required only for data space.</p> <p>add = hexadecimal value that specifies address. Range: #0-#FF (MAP, Direct or EAT modes) or 00FF-FFFF (Direct and EAT modes).</p> <p>dls = hexadecimal value that specifies the data bytes to be written with a space between bytes. Sixteen bytes is the maximum number that can be listed. Range: #0-#FF (MAP, Direct or EAT modes) or 00-FF (Direct and EAT modes).</p>
TEST ACT	Initiates the automatic test procedure for the active DPP processor.
TEST STDBY	Initiates the automatic test procedure for the standby DPP processor.
\$VALPARM BLOCKS	Displays the minimum number of blocks contained in the current write AMACRD file before the file is closed at the point of an initial primary poll. <i>This command is used only on Turbo DPP systems and Non-Turbo DPP systems with 1-Gbyte disk drives.</i>
\$VALPARM BLOCKS num	<p>Sets the minimum number of blocks contained in the current write AMACRD file before the file is closed at the point of an initial primary poll. <i>This command is used only on Turbo DPP systems and Non-Turbo DPP systems with 1-Gbyte disk drives.</i></p> <p>num = decimal value that specifies the number of blocks. Range: 1-65,535 (default value is 200).</p>
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**Table 1-3
DPP Alphabetical Software Command Listing**

Command	Description
VALPARAM INVALID	Displays the currently assigned invalid block (record) quantity threshold value.
VALPARAM INVALID value	<p>Assigns the invalid block (record) quantity threshold value.</p> <p>value = five digit integer that specifies the invalid block (record) quantity threshold. Range: 1-32,767 (terminate entry with a blank space before entering command when value is fewer than five digits).</p>
VALPARAM LOGHDR	Displays the current status of the log header display.
VALPARAM LOGHDR OFF	Specifies that the block headers are not to be displayed as they are being written to disk
VALPARAM LOGHDR ON	Specifies that the block headers are to be displayed as they are being written to disk.
VS ACT	Displays the software program version ID and firmware version ID for the active DPP processor.
VS STDBY	Displays the software program version ID and firmware version ID for the standby DPP processor.
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DPP short form software commands

The DPP software includes a series of short form maintenance commands intended for use by experienced maintenance and test personnel. Each of these commands performs a function equivalent to that of another, longer DPP command. Persons using the short form commands must be aware that these commands can only be issued from the DMS-100 MAP in the Direct mode or from the DPP EAT. The short form commands are not permitted in the DMS-100 MAP in the normal MAP mode. The user can toggle between the MAP mode and the Direct mode using the SMODE command. In addition, Direct mode commands can be entered while in the MAP mode by preceding the command entry to be executed with a '\$'.

The following table lists the short form commands and their equivalent standard DPP command. Refer to Table 1-3, *DPP Alphabetical Software Command Listing*, for a description of the equivalent commands.

Table 1-4
DPP Short Command Cross-Reference

Short Command	Standard Command Equivalence
BLKside	DSIMAINTE SELECT side
CHKIDX typ	IDXMAINT CHECK typ
DELCRF typ	IDXMAINT DELETE typ
DSP typ format seq	IDXMAINT EXAMINE typ format seq
DSPZ	IDXMAINT CLOSE
DUSE	DISK USAGE
FILE typ	IDXMAINT SUMMARY typ
FILEC typ ver	IDXMAINT DIR CLOSED typ ver
FILEO typ	IDXMAINT DIR OPEN typ
GETIDX typ ver seq	IDXMAINT CREATE DIR typ ver seq
GIO port	SYSUTIL IOREAD port
GMEM a pg add nline	SYSUTIL EXAMINE a pg add nline
NEWCRF typ	IDXMAINT CREATE FILE typ
TECside arg arg = ERROR, STATUS, or VS	DSIMAINTE SHOW side ERROR, DSIMAINTE SHOW side STATUS, or DISMAINT SHOW side VS
TECside CA addr	DSIMAINTE EXAMINE side addr
TECside CP port	DSIMAINTE IOREAD side port
TECsideWA addr data	DSIMAINTE MEMWRITE side addr data
TECsideWP port data	DSIMAINTE IOWRITE side port data
WIO port data	SYSUTIL IOWRITE port data
WMEM a pg add dls	SYSUTIL MEMWRITE a pg add dls
XDIR	LSTDIRE ALL

DPP firmware commands

The DPP firmware commands, also known as monitor commands, perform the following functions:

- Receive download files from the DMS-100.
- Boot the DPP memory from the DPP disk.
- Communicate with both DPP processors whether or not the DPP system software is up and running.

Firmware commands are intended to be used when the DPP application software is inoperative or when the DPP boot file list is changed to accommodate a new DPP download file.

The firmware commands for disk operation are different for Non-Turbo and Turbo DPP systems. Non-Turbo DPPs (except for Non-Turbo DPPs with 1-gigabyte disk drives) use the DD firmware commands for disk operation. The DD commands can only be used when the software is not running. The DISK commands are used for disk operation when the software is running. The Turbo DPP systems (including Non-Turbo DPPs with 1-gigabyte disk drives) use the DISK commands for disk operation whether or not the system software is running.

When the DPP system software is running, the STIM and DELETE commands cannot be executed.

Firmware commands can only be entered in the Direct or EAT modes. The user can toggle between the MAP mode and the Direct mode using the SMODE command. In addition, Direct mode commands can be entered while in the MAP mode by preceding the command entry to be executed with a '\$'.

The following table lists the firmware commands in alphabetic order. Many of the firmware commands have software command equivalents. These are listed in the table.

Note: Use of the firmware commands is not recommended unless absolutely necessary. Whenever possible, use the software commands.

Table 1-5
DPP Alphabetical Firmware Command Listing

Command	Description
BOOT ACT	Loads the program files specified in the boot file into DPP memory. This command must be issued to a DPP CPU in the active mode.
BOOT ADD name version	Appends a file name and its version number to an existing boot file. This command is to be issued to a DPP CPU in the active mode. name = specifies the boot file name. version = specifies the file version.
BOOT DELETE	Deletes the last file name from the list contained in the boot file. This command must be issued to a DPP CPU in the active mode.
BOOT FILE name version	Creates and opens a file space under a specified file. name = specifies the boot file name. version = specifies the file version.
BOOT LIST	Lists the contents of the boot file. This command must be issued to a DPP CPU in the active mode.
BOOT STDBY	Loads the program files specified in the boot file into the RAM of the Standby DPP processor.
CLK ACT	Displays the DPP unit time in the active DPP processor. This command has the same functionality as the CLK ACT software command.
CLK STDBY	Displays the DPP unit time in the standby DPP processor. This command has the same functionality as the CLK STDBY software command.
DD FORMAT drive	Formats the specified disk drive. This command has the same functionality as the DISK FORMAT software command. <i>This command can only be used on Non-Turbo DPP systems with 72- and 140-Mbyte disk drives.</i> drive = one character value that specifies disk drive A or B.
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**Table 1-5
DPP Alphabetical Firmware Command Listing**

Command	Description
DD INIT 1drive	<p>Initializes a selected disk drive. This command has the same functionality as the DISK INIT software command. <i>This command can only be used on Non-Turbo DPP systems with 72-, 140-, and 380-Megabyte disk drives.</i></p> <p>drive = one character value that specifies disk drive A or B.</p>
DD MOD	<p>Displays the current disk mode. This command has the same functionality as the DISK MODE software command. <i>This command can only be used on Non-Turbo DPP systems with 72-, 140-, and 380-Mbyte disk drives.</i></p>
DD MOD value	<p>Sets the disk mode to the specified value. This command has the same functionality as the DISK MODE command. <i>This command can only be used on Non-Turbo DPP systems with 72-, 140-, and 380-Mbyte disk drives.</i></p> <p>value = specifies the disk mode value. Can be one of the following:</p> <ul style="list-style-type: none"> AP - A Prime (read and write to A and copy to B) BP - B Prime (read and write to B and copy to A) AO - A Only (read and write to A only) BO - B Only (read and write to B only)
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Table 1-5
DPP Alphabetical Firmware Command Listing

Command	Description
DD PARAM disk_type	<p>Sets the disk-dependent parameters for the disk type used in the system. This command has the same functionality as the DISK PARAM software command. <i>This command can only be used on Non-Turbo DPP systems with 72-, 140-, and 380-Mbyte disk drives.</i></p> <p>disk_type = one-digit value that specifies the disk type. The following values are valid:</p> <ul style="list-style-type: none"> 5 - VERTEX V170 (72-Mbytes) 6 - MAXTOR XY1085 (72-Mbytes) 7 - MAXTOR 1140 (140-Mbytes) 8 - 380-Mbyte disk 9 - Other <p>If Other is selected, the following must be entered from the Direct mode:</p> <p>DD PARAM 9 pulse period mode head cylinder RWCCyl interleave sector</p> <p>pulse = step pulse width in microseconds (integer). period = step period times 50 microseconds (integer). mode = step mode. Range: 0-2. head = number of heads. Range: 0-8. cylinder = number of cylinders. Range: 1-65,535. RWCCyl = number of RWC cylinders. Range: 1-65,535. interleave = interleave factor. Range: 1-16. sector = disk sector type. Can be one of the following:</p> <ul style="list-style-type: none"> HARD - Hard sector disk type SOFT - Soft sector disk type
DD VS	<p>Displays the current disk interface program version. This command has the same functionality as the DISK VS software command. <i>This command can only be used on Non-Turbo DPP systems with 72-, 140-, and 380-Mbyte disk drives.</i></p>
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**Table 1-5
DPP Alphabetical Firmware Command Listing**

Command	Description
DELETE name version	<p>Deletes a specified file from the DPP system directory. This command has the same functionality as the DELFILE software command.</p> <p>name = six character value that specifies the file name.</p> <p>version = specifies the file version. Version zero is the latest version. Range: 0-255.</p>
DISK EXAMINE addr bytes	<p>Examines disk memory by displaying sixteen bytes of memory starting at a specified address. This command has the same functionality as the DISK EXAMINE software command. <i>This command is used only on Turbo DPP systems and Non-Turbo DPP systems with 1-Gbyte disk drives.</i></p> <p>addr = hexadecimal number that specifies the address. Range: 0-FFFF.</p> <p>bytes = decimal value that specifies the number of bytes to examine. Range #1-#63 (hexadecimal range) or 1-99 (decimal range).</p>
DISK FORMAT drive	<p>Formats the specified disk drive. This command has the same functionality as the DISK FORMAT software command. <i>This command is used only on Turbo DPP systems and Non-Turbo DPP systems with 1-Gbyte disk drives.</i></p> <p>drive = one character variable that specifies disk drive A or B.</p>
DISK IOREAD port	<p>Displays the contents of the specified I/O port address. This command has the same functionality as the DISK IOREAD software command. <i>This command is used only on Turbo DPP systems and Non-Turbo DPP systems with 1-Gbyte disk drives.</i></p> <p>port = hexadecimal number that specifies the I/O port address. Range: 0-FF.</p>
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Table 1-5
DPP Alphabetical Firmware Command Listing

Command	Description
DISK IOWRITE port data	<p>Writes specified data to the specified I/O port address. This command has the same functionality as the DISK IOWRITE software command. <i>This command is used only on Turbo DPP systems and Non-Turbo DPP systems with 1-Gbyte disk drives.</i></p> <p>port = hexadecimal number that specifies the I/O port address. Range: 0-FF.</p> <p>data = specifies the data to be written. Range: 0-255 (decimal range), or #0-#FF (hexadecimal range).</p>
DISK MEMWRITE addr datalist	<p>Writes a specified data string to memory starting at a specified address. This command has the same functionality as the DISK MEMWRITE software command. <i>This command is used only on Turbo DPP systems and Non-Turbo DPP systems with 1-Gbyte disk drives.</i></p> <p>addr = hexadecimal number that specifies the address. Range: 0-FFFF.</p> <p>datalist = string of hexadecimal data elements. There is a limit of sixteen data elements. Each data element has a range of 0-FF.</p>
DISK MODE	<p>Displays the current disk mode This command has the same functionality as the DISK MODE command. <i>This command is used only on Turbo DPP systems and Non-Turbo DPP systems with 1-Gbyte disk drives.</i></p>
DISK MODE value	<p>Sets the disk mode to the specified value. This command has the same functionality as the DISK MODE command. <i>This command is used only on Turbo DPP systems and Non-Turbo DPP systems with 1-Gbyte disk drives.</i></p> <p>value = specifies the disk mode value. Can be one of the following:</p> <ul style="list-style-type: none"> AP - A Prime (read and write to A and copy to B) BP - B Prime (read and write to B and copy to A) AO - A Only (read and write to A only) BO - B Only (read and write to B only)
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**Table 1-5
DPP Alphabetical Firmware Command Listing**

Command	Description
DISK RESTART	Restarts the SCSI Interface card to perform a disk reset. This command has the same functionality as the DISK RESTART command. <i>This command is used only on Turbo DPP systems and Non-Turbo DPP systems with 1-Gbyte disk drives.</i>
DISK USAGE	Displays the number of allocation units on the disk that have been used, compared to the total number of allocation units available, and lists the number of bad allocation units for both processors. This command has the same functionality as the DISK USAGE software command. <i>This command is used only on Turbo DPP systems and Non-Turbo DPP systems with 1-Gbyte disk drives.</i>
DISK VS	Displays the current disk interface program version. This command has the same functionality as the DISK VS software command. <i>This command is used only on Turbo DPP systems and Non-Turbo DPP systems with 1-Gbyte disk drives.</i>
DOS M hhhhh/	Displays sixteen bytes of memory, starting at the specified address. hhhhh = hexadecimal value that specifies the memory address.
DOS M hhhhh data	Writes bytes of data to a specified address. hhhhh = hexadecimal value that specifies the memory address. data = data bytes to be written to memory.
DOS S command	Executes a specified DPP software command on the Standby DPP processor. command = specifies a DPP software command.
DOS S DOS TEST	Initiates the test procedure for the Standby DPP processor. This command has the same functionality as the TEST STDBY software command.
DOS S DOS VS	Displays the version of the software and firmware for the Standby DPP processor. This command has the same functionality as the VS STDBY software command.
DOS TEST	Initiates the automatic test procedure for the Active DPP processor. This command has the same functionality as the TEST ACT software command.
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Table 1-5
DPP Alphabetical Firmware Command Listing

Command	Description
DOS VS	Displays the version of the software and firmware for the Active DPP processor. This command has the same functionality as the VS ACT software command.
DUSE	Displays the number of tracks on the disk that have been used, compared to the number of tracks available, and lists the number of bad tracks for both processors. This command has the same functionality as the DISK USAGE software command. <i>This command can only be used on Non-Turbo DPP systems with 72-, 140-, and 380-Mbyte disk drives.</i>
STIM yymmddhhmmssw	Sets the DPP clock. This command has the same functionality as the SETCLK software command. yymmddhhmmssw = specifies all the time and date information, beginning with year (yy), month (mm), date (dd), hour (hh), minutes (mm), seconds (ss), and day of the week (w). All of these values are numeric. The day of the week is expressed as a number between one and seven, with Monday as one and Sunday as seven.
XDIR	Lists all of the files present on the disk. This command has the same functionality as the LSTDIR ALL software command.
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List of terms

AMA

Automatic Message Accounting

An automatic recording system that documents all of the necessary billing data of subscriber-dialed long distance.

AMATPS

AMA Teleprocessing System

An AMA data management system in the DMS-100 designed for use with BELLCORE AMA data. AMATPS consists of the DMS-100 Device Independent Recording Package (DIRP), the DPP and a remote data collection center. The DMS-100 DIRP manages the flow of AMA data from the DMS-100 to the DPP. The DPP functions as the AMA data formatter (BCS25-28) and collector, and as the AMA transmitter. The remote polling center acts as the AMA data polling system.

AMAT

Automatic Message Accounting Transmitter

ASCII

American Standard Code for Information Interchange

CC

Command Control

CP

Communication Processor

CPU

Central Processing Unit

DMA

Direct Memory Access

DPP

Distributed Processing Peripheral

A peripheral device of the DMS-100 that functions as an AMA data collector and an AMA transmitter in the AMATPS of the DMS-100. The DPP collects AMA data from the DIRP, formats the data (BCS25-28), stores the data on its own internal disk and transmits the data to a data collection center when polled by the collection center. The DPP performs the AMA Transmitter (AMAT) functions independently of the DMS-100, thereby off-loading the AMAT functions from the DMS-100 Central Control Complex (CC)

DRAM

Dynamic Random Access Memory

A Random Access Memory system that employs transistor capacitor storage cells. The logic state is stored in the capacitor and buffered by the transistor. The capacitive charge is only held for a short duration and must be refreshed at a periodic rate to maintain its programmed state.

DSI

Data Stream Interface

A circuit of the DPP that accepts AMA data from the DMS-100 Magnetic Tape Drives (MTDs). The DSI emulates an MTD on DMS-100 MTD Ports, duplicating all of the communications signals normally exchanged between the DMS-100 and an MTD.

EAT

Emergency Access Terminal

A read-only memory in which stored data can be erased by ultraviolet light and reprogrammed.

HOC

Host Office Collector

An AMA data collection center that polls COs in its region on a prescheduled basis and compiles the collected data onto a magnetic tape. The tape is used by the Revenue Account Office for computing customer billing.

I/O

Input/Output

IOD

Input/Output Device

MAP

Maintenance and Administrative Position

A group of components that provide a Man-Machine Interface between OTC personnel and the DMS-100 Family. A MAP consists of Visual Display Unit, voice communications module, testing facilities and MAP furniture.

MMI

Man-Machine Interface

MP

Main Processor

RAM

Random Access Memory

RFT

Reliable File Transfer

SCSI

Small Computer System Interface

SOS

Switch Operation System

VDU

Visual Display Unit

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DMS-100 Family
**Distributed Processing
Peripheral
Command Quick Guide**

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